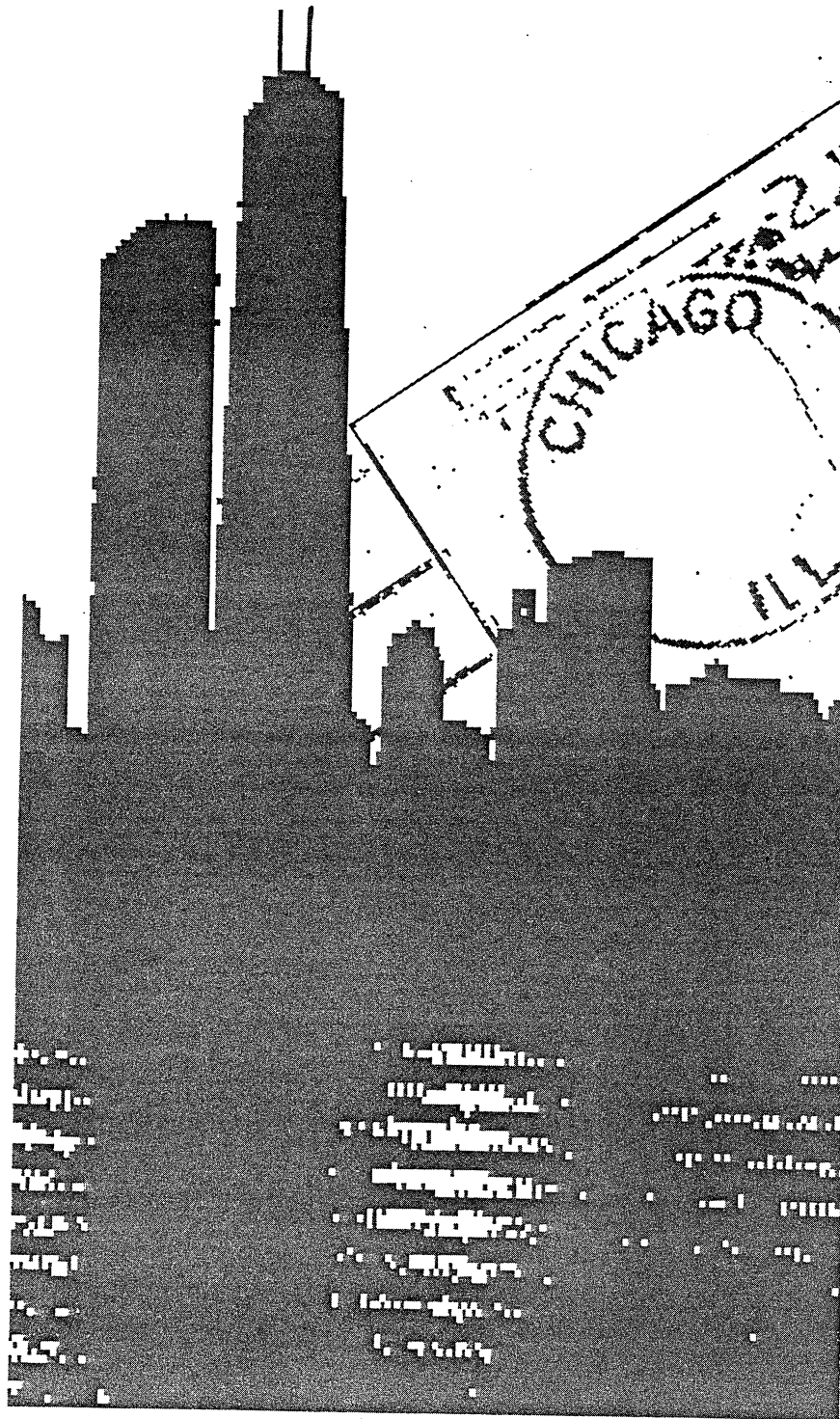


DIVERSITY IN CONSUMER BEHAVIOR



ADVANCES IN CONSUMER RESEARCH, Vol. XIX

John F. Sherry, Jr. and Brian Sternthal, Editors

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Preface

Contributors to this volume presented their work at the 19th Annual Conference of the Association for Consumer Research, October 17-20, 1991, in Chicago, Illinois. Scholars submitted 177 competitive papers, of which 78 were accepted. Thirty-seven of the 57 special topics sessions proposed were accepted. All of the former, and many of the latter, are included in this volume. Over 550 consumers registered for the conference.

A scan of the conference program or the Index quickly reveals the diversity of methods and perspectives adopted by contemporary consumer researchers. Ours is an increasingly multidisciplinary and multinational enterprise. The Annual Conference gives us all a chance to pause and appreciate the mosaic we are collectively creating. We hope that this volume will catalyze both additional growth and interdisciplinary integration.

Congratulations and gratitude are accorded to all the authors who submitted their work to the peer review process, regardless of the outcome. It is their industry, enthusiasm and insight that advances the field.

Everyone submitting a paper benefitted from the characteristically kind and careful criticism the Association has come to expect from its legion of reviewers. Our thanks is given to the Program Committee who evaluated all special topics proposals, and to the reviewers who evaluated the competitive papers. Thanks also goes to those scholars who wrote to us to volunteer their services as reviewers. We are glad to have been able to publish such a quantity of high quality research in an increasingly competitive environment.

We are especially grateful to two groups of people that helped us negotiate the infrastructure of the conference world. Our local arrangements committee ensured that all hotel functions ran smoothly, and orchestrated a most enjoyable reception at the Museum of Contemporary Art. Our administrative staff processed an ocean of paperwork, coped with errant filing systems (and, often enough, filing cabinets themselves), helped us meet honest deadlines, ran on-site registration activities, and even shepherded registrants to sessions. Each of these groups helped the Cochairs recognize the managerial implications of consumer research in real time.

A number of individuals remain to be thanked. Sid Levy provided us with the challenge of harnessing the diversity of the ACR membership in the service of creative scholarship, modelled that challenge for us in his own professional style, and fanned our enthusiasm as the challenge escalated. Keith Hunt provided the wise counsel and good fellowship for which he is justly renowned. Carolyn Hunt greatly expedited the registration process for us. Paul Anderson, Bob Calder, Becky Holman, Mike Solomon, Alice Tybout and Melanie Wallendorf each served in their way as sounding board and reality check as we renegotiated conference traditions and conventions. Peter Bloch ably handled the conference announcements that appeared in the ACR newsletter. Jim Muncy transformed the authors' contributions from software to the volume you now hold in your hands. Finally, our colleagues at Northwestern afforded us a humorous glimpse of our own antics as we juggled our conference responsibilities with the more mundane aspects of departmental life.

We greatly enjoyed our collaboration on this project, and we hope you enjoy poring over and browsing through what has become one of the most reliable one-stop-shopping sources of introduction to our evolving discipline: *Advances in Consumer Research*.

John F. Sherry, Jr.
Brian Sternthal
Editors

Table of Contents

Preface	iii
Table of Contents	iv
Conference of Committee	xvi
Conference Program	xvii
Presidential Address	
Constructing Consumer Behavior: A Grand Template.....	1
Sidney J. Levy, Northwestern University	
ACR Fellow Awards	
On Debts Due:	
Presentation of ACR Fellow-In-Consumer-Behavior Awards.....	7
Jerome B. Kernan, George Mason University	
Fellows Award Speech	
Musings on Method in Consumer Research.....	9
Paul E. Green, University of Pennsylvania	
Some Observations of a Developing Field.....	12
Joseph W. Newman, University of Arizona	
Session 1.1	
Consumer Processing of Social Ideas Advertising: A Conceptual Model.....	15
Lalita A. Manrai, University of Delaware	
Meryl P. Gardner, University of Delaware	
Session 1.2	
Toward Articulating Theories, Triangulating Concepts, and Disambiguating Interpretations: The Role of Converging Operations in Consumer Memory and Judgment.....	23
Thomas K. Srull, University of Illinois at Urbana-Champaign	
Session 1.3	
Do Hispanics Constitute a Market Segment?.....	28
Geraldine Fennell, Consultant	
Joel Saegert, The University of Texas at San Antonio	
Francis Piron, The University of Alaska Anchorage	
Rosemary Jimenez, The University of Texas at San Antonio	
Cultural Value Orientations: A Comparison of Magazine Advertisements from the United States and Mexico.....	34
John A. McCarty, University of Illinois at Urbana-Champaign	
Patricia M. Hattwick, University of Illinois at Urbana-Champaign	
Session 1.4	
What It All Adds Up To: Culture and Alpha-Numeric Brand Names.....	39
Janeen Arnold Costa, University of Utah	
Teresa M. Pavia, University of Utah	
Meaning Construction in a Cultural Gallery: A Sociosemiotic Study of Consumption Experiences in a Museum.....	46
Jean Umiker-Sebeok, Indiana University-Bloomington	

Parallels Between Hypnotic Suggestion and Persuasive Marketing Communications: Insights for New Directions in Consumer Communications Research.....	56
Stephen J. Gould, Rutgers University	
Session 1.5	
Context Effects on Social Judgments: Implications for Measurement in Consumer Research	62
Geeta Menon, New York University Barbara Bickart, University of Florida	
Context Effects in Proxy Judgments	64
Barbara Bickart, University of Florida Geeta Menon, New York University Seymour Sudman, University of Illinois at Urbana-Champaign Johnny Blair, University of Maryland	
Assimilation and Contrast Effects in Attitude Measurement: An Inclusion/Exclusion Model.....	72
Norbert Schwarz, ZUMA Herbert Bless, University of Mannheim	
Session 1.6	
Rationality of the Culture of Goods	78
M. Sahlins, University of Chicago	
Session 1.7	
Person Perception Carry-Over Effects: An Exploratory Look at How Our Partners' Traits Influence The Evaluation Of Ourselves.....	81
Therese A. Louie, UCLA	
Effects of Involvement, Arousal, and Pleasure on the Recognition of Sponsorship Stimuli.....	85
M. Tuan Pham, University of Florida	
The Relationship Between Distractor Similarity and the Recognition of Print Advertisements	94
James W. Peltier, University of Wisconsin-Whitewater John A. Schibrowsky, University of Nevada-Las Vegas	
Session 2.2	
Ask Not What the Brand Can Evoke; Ask What Can Evoke the Brand?.....	101
Stephen J. S. Holden, University of Florida Richard J. Lutz, University of Florida	
Session 2.3	
A Revised Product Involvement Inventory: Improved Usability and Validity.....	108
Edward F. McQuarrie, Santa Clara University J. Michael Munson, Santa Clara University	
The Use of Multiple Methods to Explore Three-Way Person, Brand and Usage Context Interactions.....	116
Niraj Dawar, INSEAD S. Ratneshwar, University of Florida Alan G. Sawyer, University of Florida	
Chernoff Faces: A Useful Technique for Comparative Image Analysis and Representation.....	123
Linda L. Golden, University of Texas at Austin Mayur Sirdesai, University of Texas at Austin	
Session 2.4	
Cocaine As Innovation	
A Social-Symbolic Account.....	129
Elizabeth C. Hirschman, Rutgers University	

Further Findings on Self-Gifts: Products, Qualities, and Socioeconomic Correlates.....	140
David Glen Mick, University of Florida Michelle DeMoss, University of Florida	
Symbolic Communication Among Consumers in Self-Consumption and Gift Giving:	
A Semiotic Approach.....	147
Anil Pandya, Northeastern Illinois University, Chicago A. Venkatesh, University of California, Irvine	
Session 2.5	
Retrieval Inhibition and Related Adaptive Peculiarities of Human Memory.....	155
Robert A. Bjork, University of California, Los Angeles Marc Vanhuele, University of California, Los Angeles	
Consideration of Inhibition as a Mechanism in Decision Processes	161
Mary Frances Luce, Duke University	
Session 2.6	
Driving Passions: Vehicles and Consumer Culture	166
Michael R. Solomon, Rutgers University	
"Have You Kissed Your Professor Today?": Bumper Stickers and Consumer Self-Statements.....	169
Barbara B. Stern, Rutgers, The State University of New Jersey Michael R. Solomon, Rutgers, The State University of New Jersey	
Volkswagen as "Little Man" Extended Abstract.....	174
Bruce G. Vanden Bergh, Michigan State University	
Session 2.7	
Issues in Consumer Choice With Uncertain Product Outcomes.....	175
David E. Hansen, Virginia Polytechnic Institute and State University	
Decision Making Under Risk: Applications to Insurance Purchasing	177
James Shanteau, Kansas State University	
The Time and Outcome Valuation Model: Implications for Understanding Reactance and Risky Choices in Consumer Decision Making.....	182
John C. Mowen, Oklahoma State University	
Session 3.1	
Knowledge and Knowledge of Knowledge: What We Know, What We Think We Know, and Why The Difference Makes a Difference.....	190
Lawrence Feick, University of Pittsburgh C. Whan Park, University of Pittsburgh David L. Mothersbaugh, University of Pittsburgh	
Consumer Knowledge Assessment: How Product Experience and Knowledge of Brands, Attributes, and Features Affects What We Think We Know	193
C. Whan Park, University of Pittsburgh Lawrence Feick, University of Pittsburgh David L. Mothersbaugh, University of Pittsburgh	
Session 3.2	
Postmodernism, Consumer Culture and the Society of the Spectacle	199
Alladi Venkatesh, University of California, Irvine	

Fragmentations in the Postmodern.....	203
A. Fuat Firat, Arizona State University West	
What Are You Doing After the Orgy? or Does the Consumer Really Behave ("Well")?.....	207
Ahmet Suerdem, University of California, Irvine; Mimar Sinan University, Turkey	
Session 3.3	
Examining the Descriptive Value of "Ritual" in Consumer Behavior: A View From the Field.....	213
Douglas B. Holt, Northwestern University	
Halloween As A Consumption Experience.....	219
Stacey Levinson, Rutgers University	
Stacey Mack, Rutgers University	
Dan Reinhardt, Rutgers University	
Helen Suarez, Rutgers University	
Grace Yeh, Rutgers University	
Session 3.4	
An Exploration of Materialism and Consumption-Related Affect.....	229
Marsha L. Richins, University of Massachusetts, Amherst	
Kim K. R. McKeage, University of Massachusetts, Amherst	
Debbie Najjar, University of Massachusetts, Amherst	
An Investigation of the Attribute Basis of Emotion and Related Affects in Consumption: Suggestions for a Stage-Specific Satisfaction Framework.....	237
Richard L. Oliver, Vanderbilt University	
Interpreting Perceiver Reactions to Emotional Stimuli.....	245
Jeremy D. R. Pincus, University of Connecticut	
Session 3.5	
Incorporating Consideration Sets Into Models of Brand Choice.....	251
Prakash Nedungadi, University of Toronto	
Vinay Kanetkar, University of Toronto	
An Empirical Investigation of Consideration Set Formation.....	253
John S. Hulland, University of Western Ontario	
Session 3.6	
Categorization Research and Brand Extensions.....	255
Laurette Dubé, Université de Montréal	
Bernd H. Schmitt, Columbia University	
Sheri Bridges, Wake Forest University	
Cognitive Associations and Product Category Comparisons: The Role of Knowledge Structure and Context.....	260
Deborah J. MacInnis, University of Arizona	
Kent Nakamoto, University of Arizona	
Gayathri Mani, University of Arizona	
Session 3.7	
Thoughts on the Importance of Psycholinguistics to the Understanding of Effective Advertising Communication.....	268
Larry Percy, Lintas:USA	
The Relation Between Syntactic Complexity and Advertising Persuasiveness.....	270
Tina M. Lowrey, University of Illinois, Urbana-Champaign	

Using Syntax to Direct Processing Resources.....	275
Slimen Saliba, Andrews University	
Session 4.1	
Comment on Factors Affecting Evaluations.....	276
Richard F. Yalch, University of Washington	
The Impact of Measurement Context on the Relationship Between Attitude Toward the Ad and Brand Attitude for Familiar Brands.....	279
Karen A. Machleit, University of Cincinnati Arti Sahni, University of Cincinnati	
The Effects of Missing Information on Consumer Product Evaluations.....	284
Deepak Sirdeshmukh, Ohio State University H. Rao Unnava, Ohio State University	
An Investigation of Self-Referencing's Influence on Affective Evaluations.....	290
Jean B. Romeo, Boston College Kathleen Debevec, University of Massachusetts	
Session 4.2	
Postmodernism, Consumer Culture and the Society of the Spectacle.....	See Session 3.2
Alladi Venkatesh, University of California, Irvine	
Session 4.3	
What You See Is Not Necessarily What You Get: The Effects of Pictures and Words on Consumers' Inferences.....	296
Ruth Ann Smith, Virginia Polytechnic Institute and State University	
Session 4.4	
Consumer Stereotyping: The Cognitive Bases of the Social Symbolism of Products.....	299
Eva M. Hyatt, Appalachian State University	
A Model of the Scripting of Consumer Lovemaps: The Consumer Sexual Behavior Sequence.....	304
Stephen J. Gould, Rutgers, The State University of New Jersey	
The Effects of Product Symbolism on Consumer Self-Concept.....	311
Newell D. Wright, Virginia Polytechnic Institute and State University C. B. Claiborne, James Madison University M. Joseph Sirgy, Virginia Polytechnic Institute and State University	
Session 4.6	
New Perspectives in Attitude Research.....	319
Youjae Yi, University of Michigan Ken Gray, University of Michigan	
Attitude Functions in Advertising Effectiveness: The Interactive Role of Product Type and Personality Type.....	323
Sharon Shavitt, University of Illinois Tina M. Lowrey, University of Illinois	
Session 4.7	
Nine Consumption Lifestyles.....	329
Susan Fournier, University of Florida David Antes, University of Massachusetts Glenn Beaumier, Westinghouse Savannah River Company	

Consumption Choice Within the Black Extended Family Network	338
Judy Cohen, Rider College	
Carol Kaufman, Rutgers University	
Psychographic Variation Across United States Geographic Regions.....	346
Lynn R. Kahle, University of Oregon	
Ruiming Liu, University of Oregon	
Harry Watkins, University of Oregon	
Session 5.3	
Effects of Source Likability on Attitude Change Through Message Repetition.....	353
Jean-Charles Chebat, University of Quebec at Montreal	
Michel Laroche, Concordia University	
Daisy Baddoura, University of Quebec at Montreal	
Pierre Filiatrault, University of Quebec at Montreal	
The Effects of Message Valence on Inferential Processes.....	359
Lydia J. Price, INSEAD	
Attention, Memory, Attitude, and Conation: A Test of the Advertising Hierarchy.....	366
Esther Thorson, University of Wisconsin-Madison	
Annie Chi, University of Wisconsin-Madison	
Clark Leavitt, Ohio State University	
Session 5.4	
Nostalgia: An Exploratory Study of Themes and Emotions in the Nostalgic Experience	380
Susan L. Holak, Rutgers University	
William J. Havlena, Rutgers University	
Nostalgia in Advertising Text: Romancing the Past	
Abstract.....	388
Barbara B. Stern, Rutgers, The State University of New Jersey	
Nostalgia: A Neuropsychiatric Understanding.....	390
Alan R. Hirsch, Smell & Taste Treatment and Research Foundation, LTD.	
Session 5.5	
The Role of Consumption and Disposition During Classic Rites of Passage:	
The Journey of Birth, Initiation, and Death.....	396
Julie L. Ozanne, Virginia Polytechnic Institute and State University	
Consumption and the Crisis of Teen Pregnancy: A Critical Theory Approach.....	404
Newell D. Wright, Virginia Polytechnic Institute and State University	
Jon Shapiro, Virginia Polytechnic Institute, and State University	
Session 5.6	
Consumer Inference.....	407
John Kim, Oakland University	
Frank R. Kardes, University of Cincinnati	
Session 6.2	
Mundane Everyday Consumption and the Self: A Conceptual Orientation and Prospects	
for Consumer Research.....	411
Robert E. Kleine III, Arizona State University	
Susan Schultz-Kleine, Arizona State University	
Jerome B. Kernan, George Mason University	

Self Examination	
Preference Spaces, Interpretive Inferences, and Consumption Systems.....	416
Jerome B. Kernan, George Mason University	
Patterns, Personalities, and Complex Relationships in the Effects of Self on Mundane	
Everyday Consumption: These are 495 of My Most and Least Favorite Things	417
Morris B. Holbrook, Columbia University	
Mundane Addiction: The Cinematic Depiction of Cocaine Consumption.....	424
Elizabeth C. Hirschman, Rutgers University	
Session 6.3	
Ethnicity and Consumer Product Evaluation: A Cross-Cultural Comparison of Korean	
Immigrants and Americans	429
Wei-Na Lee, University of Texas at Austin	
Koog-Hyang Ro Um, Florida State University	
The Cultural and Political Economy of the Indian Two-Wheeler.....	437
Bruce de Pyssler, University of Texas-Austin	
The Ethnicity and Consumption Relationship.....	443
Johanna Zmud, University of Southern California	
Carlos Arce, NuStats, Inc.	
Session 6.4	
"All the World's a Stage": Drama and Consumer Research	
Introduction.....	450
Barbara B. Stern, Rutgers University	
"What's in a Name?": Aristotelian Criticism and Drama Research	
Abstract.....	452
Barbara B. Stern, Rutgers University	
The Service Experience as Theater.....	455
Stephen J. Grove, Clemson University	
Raymond P. Fisk, University of Central Florida	
Sincerity, Sham and Satisfaction in Marketplace Performance	462
John Deighton, University of Chicago	
Session 6.6	
Feminist Theory and Marketing Thought: Toward A New Approach for Consumer Research.....	464
Mary Ellen Zuckerman, SUNY Geneseo	
Mary Carsky, Barney School of Business	
Are the Models Compatible for Empirical Comparison? An Illustration with an Intentions	
Model, an Expectations Model, and Traditional Conjoint Analysis	472
Rajan Natarajan, Auburn University	
Paul R. Warshaw, California Polytechnic State University	
Session 7.1	
Ho, Ho, Woe: Christmas Shopping for "Difficult" People.....	482
Cele Otnes, University of Illinois	
Young Chan Kim, University of Illinois	
Tina M. Lowrey, University of Illinois	

Thanks But No Thanks: Rejection, Possession and Disposition of the Failed Gift (Abstract).....	488
Margaret Rucker, University of California, Davis Tamara Balch, University of California, Davis Fiona Higham, University of California, Davis Kimberly Schenter, University of California, Davis	
Session 7.2	
Special Session Summary	
Consumer Behavior Research and its Implications for Product/nutritional Information Programs.....	489
Siva K. Balasubramanian, Session Co-chair Catherine Cole, Session Co-chair Nadine M. Castellano, University of Iowa	
Session 7.3	
Influence of Problem Recognition on Search and Other Decision Process Variables:	
A Framework for Analysis.....	491
Girish Punj, University of Connecticut Narasimhan Srinivasan, University of Connecticut	
Effect of Locus of Control on Information Search Behavior.....	498
Narasimhan Srinivasan, University of Connecticut Surinder Tikoo, University of Connecticut	
Mapping the Relationship Between Preattentive Processing and Attitudes.....	505
Stewart Shapiro, University of Arizona Deborah J. MacInnis, University of Arizona	
Session 7.4	
Till Death Do We Part: Family Dissolution, Transition, and Consumer Behavior.....	514
Ritha Fellerman, University of Massachusetts Kathleen Debevec, University of Massachusetts	
Measuring Conflict in Household Decision Behavior: Read My Lips and Read My Mind.....	522
William J. Qualls, Massachusetts Institute of Technology Francoise Jaffe, University of Michigan	
Consumer Socialization Associated with Relocation to a New Community: A Framework and Pilot Study.....	532
Cathy Goodwin, University of Manitoba	
Session 7.5	
Recovering From Drug Addiction: A Phenomenological Account.....	541
Elizabeth C. Hirschman, Rutgers University	
Helping the Homeless: A Radical Consumer Behavior-Oriented Solution	550
Ronald Paul Hill, Villanova University	
Marketplace Estrangement and Consumer Theft	554
Anthony D. Cox, Indiana University Dena Cox, Indiana University	
Consumer Behavior in Coping Strategies for Divorce.....	555
James H. McAlexander, Oregon State University John W. Schouten, University of Portland Scott D. Roberts, Old Dominion University	

The Cigarette Advertising Controversy: Assumptions About Consumers, Regulation, and Scientific Debate.....	557
John E. Calfee, Boston University	
Debra Jones Ringold, University of Baltimore	
Session 7.6	
Role of Affect and Need for Interaction in On-Site Service Encounters.....	563
Pratibha A. Dabholkar University of Tennessee	
The Role of Post-Experience Comparison Standards in the Evaluation of Unfamiliar Services.....	570
Ann L. McGill, Northwestern University	
Dawn Iacobucci, Northwestern University	
Determinants of Word-Of-Mouth Communications During Product Consumption.....	579
Paula Fitzgerald Bone, West Virginia University	
Session 8.1	
Buying More than We Can Use: Factors Influencing Forecasts of Consumption Quantity.....	584
Mary Frances Luce, Duke University	
When Are Higher Social Class Consumers More and Less Brand Loyal Than Lower Social Class Consumers?: The Role of Mediating Variables.....	589
Rajesh Kanwar, San Diego State University	
Notis Pagiavlas, San Diego State University	
Session 8.2	
Playing with Pictures: Postmodernism, Poststructuralism, and Advertising Visuals.....	596
Linda M. Scott, University of Colorado, Boulder	
Remembrance of Things Past: Music, Autobiographical Memory, and Emotion.....	613
Hans Baumgartner, Pennsylvania State University	
A Framework Providing Direction for Research on Communications Effects of Mental Imagery-Evoking Advertising Strategies.....	621
Laurie A. Babin, University of Southern Mississippi	
Alvin C. Burns, Louisiana State University	
Abhijit Biswas, Louisiana State University	
Session 8.4	
Examining Alternative Operational Measures of Internal Reference Prices.....	629
William O. Bearden, University of South Carolina	
Ajit Kaicker, University of South Carolina	
Melinda Smith de Borrero, University of South Carolina	
Joel E. Urbany, University of South Carolina	
Session 8.5	
Transcendent Benefits of High-Risk Sports.....	636
Richard L. Celsi, California State University, Long Beach	
Session 8.6	
Discussant's Comments on Competitive Papers Presented Session 8.6 - Services.....	642
Michael A. Belch, San Diego State University	
Incorporating Consumer Judgments into Aggregate Choice Models.....	644
W. Steven Perkins, Pennsylvania State University	

Validating Realtime Response Measures.....	649
Thomas C. Boyd, University of North Carolina, Chapel Hill	
G. David Hughes, University of North Carolina, Chapel Hill	
Deriving Attribute Utilities from Consideration Sets: An Alternative to Self-Explicated Utilities.....	657
David B. Klenosky, DePaul University	
W. Steven Perkins, Pennsylvania State University	
Session 9.1	
New Perspectives for Self-Research	664
Beth Ann Walker, Arizona State University	
Session 9.2	
Consumer and Employee Roles in Service Encounters.....	666
Michael Guiry, University of Florida	
Organizational Characteristics and Employee Excuse Making: Passing the Buck for Failed Service Encounters.....	673
Donna J. Hill, Bradley University	
Robert Baer, Bradley University	
Rustan Kosenko, Bradley University	
Health Promotion Services Consumption: Involvement and Program Choice.....	679
Nora J. Rifon, Michigan State University	
Brian E. Mavis, Michigan State University	
Elizabeth Tucker, Michigan State University	
Bertram E. Stöffelmayr, Michigan State University	
Session 9.3	
A Factor Analytic Investigation of Belk's Structure of the Materialism Construct	688
Seth R. Ellis, University of San Diego	
Applying Conjoint Analysis to Social Advertisements.....	696
Moshe Engelberg, Stanford University	
Rosalind M. Pierson, Stanford University	
Hiroshi Kashio, Stanford University	
Confirmatory Factor Analysis of a Country-Of-Origin Scale: Initial Results	706
R. Mohan Pisharodi, Oakland University	
Ravi Parameswaran, Oakland University	
Session 9.4	
Listen to the Music: Its Impact on Affect, Perceived Time Passage, and Applause	715
Brian Wansink, Dartmouth College	
The Use Of Rap Music In Children's Advertising	719
M. Elizabeth Blair, Ohio University	
Mark N. Hatala, Ohio University	
The Experience of Time as a Function of Musical Loudness and Gender of Listener.....	725
James J. Kellaris, University of Cincinnati	
Moses B. Altsech, Pennsylvania State University	
Consumer Esthetics Outside the Lab: Preliminary Report on a Musical Field Study.....	730
James J. Kellaris, University of Cincinnati	
Session 9.5	
To Choose or Not to Choose: This Is The Question	735
Ravi Dhar, University of California, Berkeley	

Session 9.6

- Good Guys Don't Wear Polyester: Consumption Ideology in a Detective Series.....739
Cathy Goodwin, University of Manitoba
- The Marlboro Man as a Twentieth Century David: A Philosophical Inquiry into the Aristotelian
Aesthetic of Advertising.....746
Barry Vacker, University of Texas
- Consumers and Movies: Information Sources for Experiential Products756
Elizabeth Cooper-Martin, Georgetown University

Session 10.1

- Involvement and Advertisement Size Effects on Information Processing762
Jin K. Han, Columbia University
- Clarifying the Simple Assumption of the Information Load Paradigm.....770
Robert S. Owen, Ohio State University
- The Influence of Level of Involvement on the Feature Matching Process in Consumer
Preference Judgments.....777
Alan Strathman, University of Missouri-Columbia
David S. Boninger, University of California-Los Angeles
Sara M. Baker, Ohio State University

Session 10.2

- A Spreading Activation Model of Consumers' Asymmetric Similarity Judgment782
Ehsan Ulhaque, University of Texas at Arlington
Kenneth D. Bahn, University of Texas at Arlington
- Schemata in Consumer Research: A Connectionist Approach.....787
Tom J. Brown, University of Wisconsin-Madison
- Priming and Implicit Memory: A Review and a Synthesis Relevant for Consumer Behavior795
Abhijit Sanyal, University of Massachusetts at Amherst

Session 10.3

- Goal-Related Consumption and Extension Advertising: The Impact on Memory and Consumption806
Brian Wansink, Dartmouth College
Michael L. Ray, Stanford University

Session 10.4

- Some Measurement Issues in Consumer Research813
Ved Prakash, Morgan State University
- The Development of a Measure to Assess Viewers' Judgments of the Creativity of an Advertisement:
A Preliminary Study817
Gabriele S. Haberland, University of Wisconsin-Madison
Peter A. Dacin, University of Wisconsin-Madison
- A Multiphase Thought Elicitation Coding Scheme for Cognitive Response Analysis.....826
Paul L. Sauer, Canisius College
Peter R. Dickson, Ohio State University
Kenneth R. Lord, University at Buffalo (SUNY)
- Scales to Measure Social Power in a Consumer Context.....835
Jonathan E. Brill, Temple University

Session 10.5

Insider versus Outsider: Reflections of a Feminist Consumer.....843
Julia M. Bristol, University of Houston

**Reflections of a Black Middle-Class Consumer: Caught Between Two Worlds or Getting
the Best of Both?.....850**
Jerome D. Williams, Pennsylvania State University

Self-Fashioning Oneself Cross-Culturally: Consumption as the Determined and the Determining.....857
Stephen J. Gould, Rutgers, The State University of New Jersey
Robert N. Stinerock, Fairleigh Dickinson University

Session 10.6

**Implications of the Symbolic Interactionist Perspective for the Study of
Environmentally-Responsible Consumption.....861**
Ed Petkus, Jr., University of Tennessee

**Consumer Assessments of Responsibility for Product-Related Injuries: The Impact of Regulations,
Warnings, and Promotional Policies.....870**
Mitch Griffin, Bradley University
Barry J. Babin, University of Southern Mississippi
William R. Darden, Louisiana State University

Extended Warranties: A Behavioral Perspective.....879
Glenn B. Voss, Texas A&M University
Irfan Ahmed, Texas A&M University

Subject Index.....887

Author Index (Conference Sessions).....889

Author Index (Volume XIX).....891

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Mickey Belch
James R. Bettman
Barbara Bickart
Gabriel J. Biehal
Mary Jo Bitner
Paul Bloom
David Brinberg
Julia M. Bristol
Merrie Brucks
Raymond Burke
Bobby Calder
Richard L. Celsi
Dipankar Chakravarti
Terry L. Childers
Joel B. Cohen
Cathy Cole
Kim P. Corfman
Janeen Arnold Costa
Joseph A. Cote
John Deighton
Rita Denny
Rohit Deshpande
Alan Dick
Julie A. Edell

Ronald Faber
Peter Farquhar
Marla Felcher
Eileen Fischer
Valerie S. Folkes
Meryl P. Gardner
Rashi Glazer
Jill Grace
Cathy Goodwin
Paul E. Green
Deborah D. Heisley
Elizabeth C. Hirschman
Stephen J. Hoch
Donna L. Hoffman
Morris B. Holbrook
Rebecca H. Holman
Pamela M. Homer
Martin I. Horn
Douglas B. Holt
Joel Huber
H. Keith Hunt
Dawn Iacobucci
Jacob Jacoby
Chris Janiszewski
Johny K. Johansen
Deborah Roedder John
Eric J. Johnson
Marilyn Jones
Lynn R. Kahle
Barbara Kahn
Frank R. Kardes
Harold R. Kassarian
Trudy Kehret-Ward
Lakshman Krishnamurthi

Robert F. Kelley
Jerome B. Kernan
Michele LaRoche
John Lastovicka
France LeClerc
Donald R. Lehmann
Barbara Loken
Richard J. Lutz
Carole Macklin
Prashant Malaviya
J. McAlexander
Leigh McAlister
John A. McCarty
Ann L. McGill
Mary Ann McGrath
Edward F. McQuarrie
Joan Meyers-Levy
David Mick
Paul W. Miniard
Andrew A. Mitchell
Reza Moinpour
John C. Mowen
Carl Obermiller
Chezy Ofir
Thomas O'Guinn
Richard L. Oliver
C. W. Park
Laura Peracchio
Ved Prakash
Christopher P. Puto
Thomas J. Reynolds
Marsha Richins
Scott D. Roberts
Everett M. Rogers

Ivan Ross
Jay Russo
Joel Saegert
Alan G. Sawyer
John W. Schouten
Allan D. Shocker
Paul Schurr
Terence A. Shimp
Carolyn J. Simmons
Itamer Simonson
M. Joseph Sirgy
Ruth Ann Smith
Michael R. Solomon
Paul S. Speck
Susan Spiggle
Douglas M. Stayman
Debra L. Stephens
David W. Sterward
Harish Sujan
Mita Sujan
Jack Swasy
Craig Thompson
Esther Thorson
Alice Tybout
H. Rao Unnava
Pierre VandenAbeelee
Beth Walker
Brian Wansink
Richard Yalch
Gerald Zaltman
Valerie A. Zeithaml
Mary Ellen Zuckerman
George Zinkham

Conference Program
CHICAGO, MARRIOTT HOTEL
OCTOBER 17-20, 1991

THURSDAY, OCTOBER 17

REGISTRATION
4:00 - 8:00 P.M.

ACR EXECUTIVE BOARD MEETING
10:00 A.M. - 5:15 P.M.

EARLY BIRD COCKTAIL PARTY
6:00 - 8:00 P.M.

FRIDAY, OCTOBER 18

REGISTRATION
8:30 A.M. - 3:00 P.M.

SESSION 1
8:30 am - 10:00 am

1.1 Special Session: Consumer Behavior Related to Social Ideas Advertising

Co-Chairs

Lalita A. Manrai, University of Delaware
Meryl P. Gardner, University of Delaware

Discussant

Morris Holbrook, Columbia University

Consumer Processing of Social Ideas Advertising: A Conceptual Model

Lalita A. Manrai, University of Delaware
Meryl P. Gardner, University of Delaware

Sociological Perspectives on Social Issue Advertising

Gerald Zaltman, Harvard University

Public Service Announcement Campaigns vs. Paid Advertising Campaigns: Differences in Development and Evaluation

John P. Murry, University of Wisconsin - Madison
John L. Lastovicka, University of Kansas

A Field Test of Influence Strategies for Sustaining Blood Donation: Emotional Arousal versus Self-Concept Enhancement

Chris T. Allen, University of Cincinnati
Robert J. Kent, Drexel University
Terri F. Barr, University of Cincinnati

1.2 Special Session: Cognitive Organization of Product Information: Theory and Method

Co-Chairs & Discussants

Jong-Won Park, University of British Columbia
Robert Wyer, University of Illinois at Urbana-Champaign

Organization of Product Information in Memory: Some Exploratory Findings

Jong-Won Park, University of British Columbia

Robert Wyer, University of Illinois at Urbana-Champaign

Representation of Product Information in Memory: Some Experimental Evidence

Manoj Hastak, American University

Finding Choice Alternatives in Memory: The Effects of Cognitive Organization on Brand Name Recall

Wes Hutchinson, University of Florida

Murali Mantrala, University of Florida

Kalyan Raman, University of Florida

Methodological Issues in the Study of Memory Organization

Thomas K. Srull, University of Illinois at Urbana-Champaign

1.3 Special Session: Hispanic Consumer Research

Chair & Discussant

Laurel Anderson, Arizona State University - West

Do Hispanics Constitute a Market?

Geraldine Fennell, Consultant

Joel Saegert, The University of Texas at San Antonio

Francis Piron, University of Alaska, Anchorage

Rosemary Jimenez, The University of Texas at San Antonio

Cultural Value Orientations: A Comparison of Advertisements from the United States and Mexico

John A. McCarty, University of Illinois at Urbana-Champaign

Patricia M. Hattwick, University of Illinois at Urbana-Champaign

Border Crossings: An Ethnographic Exploration of Mexican Consumer Acculturation

Lisa N. Penaloza, California State University, San Bernardino

What Hispanic Folkstories Tell Us About Hispanic Health Patterns

Laurel A. Anderson, Arizona State University - West

1.4 Competitive Papers: Symbolism and Meaning

Chair

Paul Speck, University of Tennessee

Discussant

Rita Denny, Holen North America

What It All Adds Up To: Culture and Alpha-Numeric Brand Names

Janeen A. Costa and Teresa Pavia, University of Utah

Meaning Construction in a Cultural Gallery: A Sociosemiotic Study of Consumption Experiences in a Museum

Jean Umiker-Sebeok, RCLSS/Indiana University

Parallels Between Hypnotic Suggestion and Persuasive Marketing Communications: Insights for New Directions in Consumer Communications Research

Stephen J. Gould, Rutgers University

1.5 Special Session: Context Effects on Social Judgments: Implications for Measurement in Consumer Research

Chairs

Barbara Bickart, University of Florida

Geeta Menon, New York University

Discussants

Gerald Salancik, Carnegie Mellon University
Jack Feldman, Georgia Institute of Technology

The Role of Judgment Type and Cognitive Effort in Context Effects

Leonard L. Martin, University of Georgia
Thomas F. Harlow, University of Georgia

Context Effects in Proxy Judgments

Barbara Bickart, University of Florida
Geeta Menon, New York University
Seymour Sudman, University of Illinois at Urbana-Champaign
Johnny Blair, University of Maryland

Effects of Question Order on Correlates of Stated Voting Intentions: The Moderating Roles of Involvement and Prior Commitment

Carolyn J. Simmons, University of Illinois at Urbana-Champaign
John G. Lynch, Jr., University of Florida
Barbara Bickart, University of Florida

Context Effects in Attitude Measurement: An Inclusion/Exclusion Model of Assimilation and Contrast Effects

Norbert Schwarz, Zentrum für Umfragen, Methoden und Analysen (ZUMA), Mannheim, W. Germany
Herbert Bless, University of Mannheim

1.6 Special Session: You Eat What You Are: Food Symbolism in the U.S.A.

Chair

John F. Sherry, Jr. Northwestern University

Discussant

Grant McCracken, Royal Ontario Museum

Gender Symbolism in Food

Deborah D. Heisley, University of California - Los Angeles

Eating Prepared Food: In and Out

Sidney J. Levy, Northwestern University

Rationality and the Culture of Goods

Marshall Sahlins, University of Chicago

1.7 Competitive Papers: Attentional Processes

Chair

Durairaj Maheswaran, New York University

Discussant

Marilyn Jones, University of Houston - Clear Lake

Person Perception Carry-Over Effects: How Our Partners' Traits Influence the Evaluation of Ourselves

Therese A. Louie, University of California - Los Angeles

Effects of Involvement, Arousal, and Pleasure on the Recognition of Sponsorship Stimuli

Michel Tuan Pham, University of Florida

The Relationship Between Distractor Similarity and the Recognition of Print Advertisements

James W. Peltier, University of Wisconsin - Whitewater
John A. Schibrowsky, University of Nevada - Las Vegas

SESSION 2
10:20 am - 11:50 pm

2.1 Special Session: Repetition, Memory, and Low-Involvement Learning

Chair

Scott A. Hawkins, University of Chicago

Discussant

J. Paul Peter, University of Wisconsin, Madison

Repetition, Low-Involvement Processing, and Belief

Scott A. Hawkins, University of Chicago

Stephen J. Hoch, University of Chicago

The Development of Choice Heuristics Over Time: An Examination of The Learning Process

Wayne D. Hoyer, The University of Texas at Austin

Steven P. Brown, University of Georgia

Examining The Relationship Between Ad Repetition and Product Evaluations

Prashant Malaviya, Northwestern University

Joan Meyers-Levy, University of Chicago

Ad Format and Memory Structure: Measures and Methods of Building Brand Awareness

Paul M. Herr, Indiana University

Russell H. Fazio, Indiana University

Martha C. Powell, Indiana University

2.2 Special Session: Accessibility and Choice

Chair

Andrew A. Mitchell, University of Toronto

Discussant

Thomas K. Srull, University of Illinois, Urbana-Champaign

Ask Not What the Brand Can Evoke; Ask What Can Evoke the Brand?

Stephen J.S. Holden, University of Florida

Richard J. Lutz, University of Florida

The Role of Category Structure in Brand Recall During Choice

Prakash Nedungadi, University of Toronto

Amitava Chattopadhyay, McGill University

The Effect of Memory Organization on the Judgment and Choice of Consumer Products

Karen Finlay, University of Toronto

Andrew A. Mitchell, University of Toronto

Attitudes as Hypotheses: An Accessibility - Diagnosticity Perspective

John Kim, Oakland University

Frank R. Kardes, University of Cincinnati

Paul M. Herr, University of Colorado

2.3 Competitive Papers: Developing Valid Measures

Chair

Chris Puto, University of Arizona

Discussant

Merrie Brucks, University of Arizona

A Revised Product Involvement Inventory: Improved Usability and Validity

Edward McQuarrie, Santa Clara University

J. Michael Munson, Santa Clara University

The Use of Multiple Methods to Explore Three-way Person, Brand and Usage Context Interactions

Niraj Dawar, INSEAD

S. Ratneshwar, University of Florida

Alan G. Sawyer, University of Florida

'Chernoff Faces': A Useful Technique for Comparative Image Analysis and Representation

Linda Golden, University of Texas - Austin

Mayur Sirdesai, University of Texas-Austin

2.4 Competitive Papers: Self-Indulgence in Consumer Behavior

Chair

Mary Ann McGrath, Loyola University - Chicago

Discussant

Dominique Bouchet, Odense University

Cocaine as Innovation

Elizabeth C. Hirschman, Rutgers University

Further Findings on Self-Gifts: Products, Qualities and Socioeconomic Correlates

David Mick, University of Florida

Michelle DeMoss, University of Florida

Symbolic Communication Among Consumers in Self-Consumption and Gift Giving: A Semiotic Approach

Anil M. Pandya, Northeastern Illinois University

A. Venkatesh, University of California - Irvine

2.5 Special Session: On Becoming Inhibited: A Different Metaphor for Consumer Cognitive Processing

Co-Chairs

Wanda T. Wallace, Duke University

James R. Bettman, Duke University

Discussant

Jay Russo, Cornell University

An Inhibition-Based Theory of Attention

Lynn Hasher, Duke University

Retrieval Inhibition and Related Adaptive Peculiarities of Human Memory

Robert Bjork, University of California - Los Angeles

Mark Vanhuele, University of California - Los Angeles

Consideration of Inhibition as a Mechanism in Decision Processes

Mary Frances Luce, Duke University

2.6 Special Session: Driving Passions: Vehicles and Consumer Culture

Chair

Michael R. Solomon, Rutgers University

'Have You Kissed Your Professor Today?' Bumper Stickers and Consumer Self-Statements

Barbara B. Stern, Rutgers University

Michael R. Solomon, Rutgers University

Volkswagen as 'Little Man'

Bruce G. Vanden Bergh, Michigan State University

Hog Heaven: The Structure, Ethos, and Market Impact of a Consumption Subculture

John W. Schouten, University of Portland

James H. McAlexander, Oregon State University

The All-American Unobtrusive Measure... Or, You Are What You Drive, Even If You're Not From California

Douglas Banik, D'Arcy Masius Benton & Bowles

2.7 Special Session: New Theoretical Perspectives on Consumer Decision Making Under Uncertainty

Chair

David E. Hansen, Virginia Polytechnic Institute and State University

Robert J. Meyer, University of Pennsylvania

Discussant

Eric Johnson, University of Pennsylvania

Decision Making Under Risk

James Shanteau, Kansas State University

The Integration of Uncertain Gains and Losses in Multiattribute Decision Making

Robert J. Meyer, University of Pennsylvania

A Consumer's Model of Choice Under Uncertainty

David E. Hansen, Virginia Polytechnic Institute and State University

Towards a Unification of Time Dependent Valuation Processes: Implications for Consumer Decision Making Under Uncertainty

John C. Mowen, Oklahoma State University

FRIDAY, OCTOBER 18

LUNCH

12:00 pm - 2:00 pm

Business Meeting:

H. Keith Hunt, Brigham Young University

Ferber Award:

Presented by: Kent Monroe, University of Illinois

Presented to:

Jonathan Frenzen, University of Arizona

Prakash Nedungadi, University of Toronto

Presidential Address:

Sidney J. Levy, Northwestern University

SESSION 3

2:15 pm - 3:45 pm

3.1 Special Session: Knowledge and Knowledge of Knowledge: What We Know, What We Think We Know, and Why the Difference Makes a Difference

Chairs

Lawrence F. Feick, University of Pittsburgh

C. W. Park, University of Pittsburgh

Discussant

Meryl P. Gardner, University of Delaware

Exploring the Relationship Among Self-Reported Knowledge, Objective Knowledge, Product Usage and Consumer Decision-Making

Catherine Cole, University of Iowa
Gary Gaeth, University of Iowa
Goutam Chakraborty, Oklahoma State University
Irwin Levin, University of Iowa

What Consumers 'Really' Know and What They Think They Know: Investigations Into the Determinants of Confidence and Performance

Susan Broniarczyk, University of Texas - Austin
J. Wesley Hutchinson, University of Florida
Joseph W. Alba, University of Florida

Determinants of the Overconfidence Effect in Marketing Predictions

Jayashree Mahajan, University of Arizona

Consumer Knowledge Assessment: How Product Experience and Knowledge of Brands, Attributes and Features Affects What We Think We Know

C. Whan Park, University of Pittsburgh
Lawrence F. Feick, University of Pittsburgh
David L. Mothersbaugh, University of Pittsburgh

3.2 Special Session: Postmodernism, Consumer Culture and the Society of the Spectacle

Chair

Alladi Venkatesh, University of California - Irvine

Introduction

Alladi Venkatesh, University of California - Irvine

Postmodernism and Consumer Culture: A Synthesis

Mike Featherstone, Teesside Polytechnic

The Soul Of The Commodity: Benjamin's Model Of The Consumer

Alex Gelley, University of California - Irvine

Fragmentation In Postmodern Culture

A. Fuat Firat, Arizona State University - West

What Are You Doing After The Orgy?

Suerdem Ahmet, Momer Sinan University

3.3 Competitive Papers: Ritual in Consumer Behavior

Chair

Annamma Joy, Concordia

Discussant

Dennis Rook, University of Southern California

Examining the Descriptive Value of 'Ritual' in Consumer Behavior: A View from the Field

Douglas B. Holt, Northwestern University

The Consumption of Insignificant Rituals: A Look at Debutante Balls

Jennifer Edson Escalas, Duke University

Halloween as Consumption Experience

Stacey Levinson, Rutgers University
Stacey Mack, Rutgers University
Daniel Reinhardt, Rutgers University
Helen Suarez, Rutgers University
Grace Yeh, Rutgers University

3.4 Competitive Papers: Affect and Emotion

Chair

Nancy Artz, University of Southern Maine

Discussant

Rajiv Batra, University of Michigan

An Exploration of Materialism and Consumption-Related Affect

Marsha L. Richins, University of Massachusetts/Amherst
Kim K. R. McKeage, University of Massachusetts/Amherst
Debbie Najjar, University of Massachusetts/Amherst

An Investigation of the Attribute Basis of Emotion and Related Affects in Consumption: Suggestions for a Stage-Specific Satisfaction Framework

Richard L. Oliver, Vanderbilt University

Interpreting Perceiver Reactions to Emotional Stimuli

Jeremy D. Pincus, University of Connecticut

3.5 Special Session: Consideration Sets and Brand Choice: Combining Quantitative and Behavioral Approaches

Chair

Prakash Nedungadi, University of Toronto

Co-Discussants

Allan D. Shocker, University of Minnesota
Wesley J. Hutchinson, University of Florida

Incorporating Consideration Sets Into Models of Brand Choice

Prakash Nedungadi, University of Toronto
Vinay Kanetkar, University of Toronto

An Empirical Investigation of Consideration Set Formation

John S. Hulland, University of Western Ontario

Using Consideration Set Information To Improve Choice Model Specification

Jordan Louviere, University of Utah
Bill Moore, University of Utah

Advertising Effects on Consideration Set Size

Anusree Mitra, American University
John G. Lynch, University of Florida

3.6 Special Session: Categorization Research and Brand Extensions

Chair

Laurette Dube, Université de Montreal
Bernd Schmitt, Columbia University
Sheri Bridges, Wake Forest University

Co-Discussants

Joan Meyers-Levy, University of Chicago
Kevin Keller, Stanford University

Recent Theoretical Developments in Categorization Research

Lawrence Barsalou, University of Chicago

...And Their Relevance to Brand Extensions

Bernd Schmitt, Columbia University
Laurette Dube, Université de Montreal

Dominance and Typicality in Brand Extension
Peter Farquhar, Carnegie-Mellon University
Paul M. Herr, University of Colorado, Boulder

Contextual Variations in Product/Category
Deborah MacInnis, University of Arizona
Kent Nakamoto, University of Arizona

A Scheme Unification Model of Brand Extensions...
Sheri Bridges, Wake Forest University

...Applied to the Reciprocal Relationship Between Brand and Extension.
Sandra Milberg, Georgetown University
C. Whan Park, University of Pittsburgh

Asymmetrical Influence Between Brand and Extension...
David Boush, University of Oregon

...and the Negative Impact of Extensions on the Brand
Barbara Loken, University of Minnesota
Deborah Roedder John, University of Minnesota

3.7 Special Session: Uses of Psycholinguistic Theory in Advertising Research

Chair

Tina M. Lowrey, University of Illinois

Co-Discussants

Esther Thorson, University of Wisconsin - Madison
Larry Percy, Lintas:USA

The Relationship Between Psycholinguistic Structure and Advertising Effectiveness
Tina M. Lowrey, University of Illinois

Understanding the Circumstances Under Which People Make Misleading Inferences
Trudy Kehret-Ward, University of California - Berkeley

Using Syntax to Direct Processing Resources
Slimen Saliba, Andrews University

FRIDAY, OCTOBER 18

SESSION 4

4:00 pm - 5:30 pm

4.1 Competitive Papers: Factors Affecting Evaluation

Chair

C.S. Craig, New York University

Discussant

Richard Yalch, University of Washington

The Impact of Measurement Context on the Relationship Between Attitude Toward the Ad and Brand Attitude for Familiar Brands

Karen A. Machleit, University of Cincinnati
Arti Sahni, University of Cincinnati

The Effects of Missing Information on Consumer Product Evaluations

Deepak Sirdeshmukh, Ohio State University
H. Rao Unnava, Ohio State University

An Investigation of Self-Referencing's Influence on Affective Evaluations
Jean B. Romeo, Boston College
Kathleen Debevec, University of Massachusetts

4.2 Special Session: Postmodernism, Consumer Culture and the Society of the Spectacle

Chair
Alladi Venkatesh, University of California - Irvine

Discussant
John F. Sherry, Jr., Northwestern University

Modernist & Postmodernist Overtones in the Photographic Representation of the Consumer Culture
Sally Stein, Yale University

Understanding Social Context Through Photography
Gerald Zaltman, Harvard University

Postmodernism & the European Scene
Dominique Bouchet, Odense University

The Postmodern Consumer Environment: A Case Study
Alladi Venkatesh, University of California - Irvine

4.3 Special Session: Is a Picture Really Worth a Thousand Words? The Effects of Visually and Verbally Presented Information in Advertising

Co-Chairs
Laura A. Peracchio, University of Wisconsin - Milwaukee
Joan Meyers-Levy, University of Chicago

Discussant
Morris B. Holbrook, Columbia University

Interactive Advertising: Using Picture Copy Combinations to Enhance Memory for Advertisements
Susan E. Heckler, University of Arizona
Terry L. Childers, University of Minnesota

What You See Is Not Necessarily What You Get: The Effects of Pictures and Words on Consumers' Inferences
Ruth Ann Smith, Virginia Polytechnic Institute and State University

The Impact of Complete Versus Partial Visuals on Children's Learning
M. Carole Macklin, University of Cincinnati

Are All Pictures Created Equal?: How Pictures Can Influence Consumer Interpretation of Verbal Information
Joan Meyers-Levy, University of Chicago
Laura A. Peracchio, University of Wisconsin - Milwaukee

4.4 Competitive Papers: Symbolic Consumer Behavior

Chair
Thomas O'Guinn, University of Illinois, Urbana-Champaign

Discussant
Rebecca Holman, D'Arcy Masius Benton & Bowles

Consumer Stereotyping: The Cognitive Bases of the Social Symbolism of Products
Eva M. Hyatt, Appalachian State University

A Model of the Scripting of Consumer Lovemaps: The Sexual Behavior Sequence
Stephen J. Gould, Rutgers University

The Effects of Product Symbolism on Consumer Self-Concept
Newell D. Wright, Virginia Polytechnic Institute and State University
C.B. Claiborne, James Madison University
M. Joseph Sirgy, Virginia Polytechnic Institute and State University

4.5 Special Session: Behavioral Theories of Marketing Strategy

Chair & Discussant
Rashi Glazer, University of California - Berkeley

Strategic Inimitability: Preemptive Positioning Through Meaningful and Meaningless Differentiation
Gregory Carpenter, Northwestern University
Rashi Glazer, University of California - Berkeley
Kent Nakamoto, University of Arizona

Consumer Consideration Set and the Pioneering Advantage
Gurumurthy Kalyanaram, University of Texas - Dallas
Frank Kardes, University of Cincinnati
Ronald Dornoff, University of Cincinnati

The Strategic Use of Phantoms
Peter Farquhar, Carnegie Mellon University
Anthony Pratkanis, University of California - Santa Cruz

On the Managerial Relevance of a Theory of Market Behavior
Allan Shocker, University of Minnesota
S. Ratneshwar, University of Florida
Rajendra Srivastava, University of Texas - Austin

4.6 Special Session: New Perspectives in Attitude Research

Chair
Youjae Yi, University of Michigan

Discussant
Bernd H. Schmitt, Columbia University

Enactment Processes in the Theory of Reasoned Action
Richard P. Bagozzi, University of Michigan

The Eye is Better than an Aye
Chris Janiszewski, University of Florida

Attitude Functions in Advertising Effectiveness: The Interactive Role of Product Type and Personality Type
Sharon Shavitt, University of Illinois
Tina M. Lowrey, University of Illinois

The Effect of Attribute Diagnosticity on Attitudes
Kenneth Gray, University of Michigan
Youjae Yi, University of Michigan

4.7 Competitive Papers: Lifestyle Analysis

Chair
Marty Horn, DDB Needham Worldwide

Discussant
Sharon Beatty, University of Alabama

Nine Consumption Lifestyles
Susan Fournier, University of Florida
David Antes, University of Massachusetts
Glenn Beaumier, Westinghouse Savannah River Company

Consumption Choice within the Black Extended Family Network

Judy Cohen, Rider College
Carol Kaufman, Rutgers University

Values and Psychographic Variation across United States Geographic Regions

Lynn R. Kahle, University of Oregon
Ruiming Liu, University of Oregon
Harry Watkins, University of Oregon

4.8 Special Session: Ferber Award Presentations

Chair & Discussant

Kent Monroe, University of Illinois

Purchasing Behavior in Embedded Markets

Jonathan K. Frenzen, University of Arizona

Recall and Consumer Consideration Sets: Influencing Choice Without Altering Brand Evaluations

Prakash Nedungadi, University of Toronto

FRIDAY, OCTOBER 18

Cocktail Party

6:00 pm

Museum of Contemporary Art

SATURDAY, OCTOBER 19

SESSION 5

8:30 am - 10:00 am

5.1 Special Session: Personality and Psychoanalytic Theory: Current Theoretical and Empirical Research

Chair

Paul J. Albanese, Kent State University

Discussants

Stephen J. Gould, Rutgers University
William D. Wells, DDB Needham Worldwide, Chicago

Durable Fantasies: A Case of Judy and Her Refrigerator Wonderland

Dennis W. Rook, University of Southern California
Morris B. Holbrook, Columbia University

Psychological Undercurrents of Materialism

Jonathan E. Schroeder, University of Rhode Island

Adapting the California Q Sort to Psychoanalytic Object Relations: A Pilot Project to Operationalize the Personality Organization for Empirical Research

Paul J. Albanese, Kent State University

5.2 Meet the Editors

International Journal of Research in Marketing, Piet Vanden Abeele, Catholic University, Leuven
Journal of Consumer Research, Kent Monroe, University of Illinois
Journal of Consumer Psychology, Thomas Srull, University of Illinois
Journal of Marketing Research, Barton Weitz, University of Florida
Marketing Letters, Harold Kassarjian, UCLA & Robert Meyer, University of Pennsylvania

5.3 Competitive Papers: Factors Influencing Consumers' Responses

Chair

Christian Pinson, INSEAD

Discussant

Jill Klein, Northwestern University

Effects of Source Likability on Attitude Change through Message Repetition

Jean-Charles Chebat, University of Quebec at Montreal

Michel Laroche, Concordia University

Pierre Filiatrault, University of Quebec at Montreal

Daisy Baddoura, University of Quebec at Montreal

The Effects of Message Valence on Inferential Processes

Lydia J. Price, INSEAD

Attention, Memory, Attitude, and Conation: A Test of the Advertising Hierarchy

Esther Thorson, University of Wisconsin

Annie Chi, University of Wisconsin

Clark Leavitt, Ohio State University

5.4 Special Session: Back to the Future,...Forward to the Past: Manifestations and Characteristics of Nostalgic Experience

Co-Chairs

Susan L. Holak, Rutgers University

William J. Havlena, Rutgers University

Discussant

Fred Davis, University of California - San Diego

Nostalgia: An Exploratory Study of Themes and Emotions in the Nostalgic Experience

Susan L. Holak, Rutgers University

William J. Havlena, Rutgers University

Nostalgia and Holidays: Ritual Forms of Celebrating the Past

Melanie Wallendorf, University of Arizona

Eric J. Arnould, California State University - Long Beach

Nostalgia in Advertising Text: Romancing the Past

Barbara Stern, Rutgers University

Nostalgia: A Neuropsychiatric Understanding

Alan R. Hirsch, M.D., F.A.C.P., Smell & Taste Treatment and Research Foundation, Ltd., Chicago, IL

5.5 Special Session: The Role of Consumption and Disposition During Classic Rites of Passage: The Journey of Birth, Initiation, and Death

Chair

Julie L. Ozanne, Virginia Polytechnic Institute and State University

Discussant

John W. Schouten, University of Portland

Consumption and the Rite of Passage into Parenthood

Newell D. Wright, Virginia Polytechnic Institute and State University
Jon Shapiro, Virginia Polytechnic Institute and State University

Material Concerns While Coming of Age in the Mormon Faith: Spiritual Work in a Secular World

Julie L. Ozanne, Virginia Polytechnic Institute and State University

Transition in Turmoil: When Becoming an Adult Involves Criminal Behavior

Ron Paul Hill, Villanova University

Rituals of Adversity and Re-membering: The Role of Possessions for Persons and Community Living With AIDS

Mara B. Adelman, Northwestern University

5.6 Special Session: Consumer Inference

Co-Chairs

John Kim, Oakland University
Frank R. Kardes, University of Cincinnati

Discussant

Douglas M. Stayman, Cornell University

Determinants of the Persuasiveness of Open-Ended Versus Closed-Ended Advertisements

Alan G. Sawyer, University of Florida

Consumer Inference Making and Indirect Effects of Advertising

Youjae Yi, University of Michigan

Contingent Inference Making

Carolyn J. Simmons, University of Illinois
John G. Lynch, Jr., University of Florida

Consumer Expertise and the Perceived Diagnosticity of Inferences

Frank R. Kardes, University of Cincinnati
John Kim, Oakland University
Jeen-Su Lim, University of Toledo

5.7 Special Session: Advertising Effects on Brand Equity: A Variety of Perspectives on Brand-based Memory Networks

Co-Chairs

Susan E. Heckler, University of Arizona
Kevin L. Keller, Stanford University

Discussant

Michael J. Houston, University of Minnesota

The Interaction of Brand Name and Brand Positioning Strategies on Advertising Effectiveness Over Time

Susan E. Heckler, University of Arizona
Kevin L. Keller, Stanford University

Ad-Induced Affect and Brand Equity: An Exploratory Study

Marian Chapman Moore, Duke University
Julie Edell, Duke University

The Impact of Extension Advertising on Brand Equity

Brian Wansink, Dartmouth College

SESSION 6
10:30 am - 12:00 pm

6.1 Special Session: Consumer Research in Services Marketing

Chair & Discussant

Dawn Iacobucci, Northwestern University

A Service Users Typology

Terri Swartz, Arizona State University

Nancy Stephens, Arizona State University

Classifying Service Encounters Based on Affective Dimensions: A Preliminary Approach

Cathy Goodwin, University of Manitoba

Can You Control Your Consultant?

Jill A. Grace, University of Southern California

Gender Differences in Preferences for Services Attributes

Dawn Iacobucci, Northwestern University

6.2 Special Session: Mundane Everyday Consumption and the Self

Co-Chairs

Susan Schultz-Kleine, Arizona State University

Robert E. Kleine III, Arizona State University

Discussant

Jerome B. Kernan, George Mason University

Mundane Everyday Consumption and The Self: A Brief Introduction

Susan Schultz-Kleine, Arizona State University

Robert E. Kleine III, Arizona State University

These Are 125 of My Favorite and Least Favorite Things: How Nostalgia Matters, Even for Young'n's

Morris B. Holbrook, Columbia University

Consumptions Systems Revisited

Sidney J. Levy, Northwestern University

Mundane Addiction: The Cinematic Depiction of Cocaine Consumption

Elizabeth C. Hirschman, Rutgers University

6.3 Competitive Papers: Multicultural Consumer Behavior

Chair

Rohit Deshpande, Dartmouth College, Tuck School of Business

Discussant

Douglas Stayman, Cornell University

Ethnicity and Consumer Product Evaluation: A Cross-Cultural Comparison of Korean Immigrants and Americans

Wei-Na Lee, University of Texas - Austin

Koog-Hyang Ro Um, University of Texas - Austin

The Cultural and Political Economy of the Indian 2-Wheeler

Bruce de Pysler, University of Texas - Austin

The Ethnicity and Consumption Relationship
Johanna P. Zmud, University of Southern California
Carlos H. Arce, Nu Stats, Inc.

6.4 Special Session: All the World's a Stage: Drama and Consumer Research

Chair
Barbara B. Stern, Rutgers University

Discussant
William D. Wells, DDB Needham Worldwide

What's in a Name?' Aristotelian Criticism and Drama Research
Barbara B. Stern, Rutgers University

The Service Encounter as Theater
Stephen J. Grove, Clemson University
Raymond P. Fisk, University of Central Florida

Sincerity, Sham and Satisfaction in Marketplace Performance
John Deighton, University of Chicago

Empathy and Vicarious Performances of Meaning During Exposure to Commercial Dramas
Gregory W. Boller, Memphis State University
Jerry C. Olson, Pennsylvania State University

6.5 Special Session: Sociological Issues in Consumer Research

Chair & Discussant
Paul F. Anderson, Pennsylvania State University

Naturalistic Exploration of Exchange Processes
Trevor Pinch, Cornell University

The Hidden Injuries of Social Class: Implications for Consumer Research
Paul F. Anderson, Pennsylvania State University

Working Class Views and Blues: A Qualitative Examination
Brent Johnson, Pennsylvania State University

6.6 Competitive Papers: Philosophical Overviews

Co-Chairs & Discussants
Paul Speck, University of Tennessee
Craig J. Thompson, University of Wisconsin - Madison

Feminist Theory and Marketing Thought: Toward a New Approach for Consumer Research
Mary Ellen Zuckerman, State University of New York - Geneseo
Mary Carsky, Barney School of Business

Are the Models Compatible for Empirical Comparison?
Rajan Nataraajan, Auburn University
Paul R. Warshaw, California Polytechnic State University

A Method to Analyze the Structure of the Consumer Research Discipline
Phillip Emerson, University of Technology, Sydney
Ken Miller, University of Technology, Sydney

6.7 ACR Program Committee 1992

Leigh McAlister
Michael Rothschild

SATURDAY, OCTOBER 19

Lunch
12:00 pm - 2:00 pm

JCR Award. Presented by: Kent Monroe, University of Illinois

ACR Fellow Award. Presented by: Jerome Kernan, George Mason University, to:
Joseph Newman, University of Arizona
Paul Green, University of Pennsylvania

SATURDAY, OCTOBER 19

SESSION 7
2:00 pm - 3:30 pm

7.1 Special Session: More Tales from the 'Dark Side': Expanding the Study of Negativity in Gift Exchange

Chair

Cele Otnes, University of Illinois

Discussant

David Glen Mick, The University of Florida

Ho, Ho, Woe: Christmas Shopping For Difficult People

Cele Otnes, University of Illinois
Young Chan Kim, University of Illinois
Tina M. Lowrey, University of Illinois

'Many Unhappy Returns:' Disposition of the Gift

Mary Ann McGrath, Loyola University
John F. Sherry, Jr., Northwestern University
Sidney J. Levy, Northwestern University

Thanks But No Thanks: Rejection, Possession and Disposition of the Failed Gift

Margaret Rucker, The University of California - Davis
Tamara Balch, The University of California - Davis
Fiona Higham, The University of California - Davis
Kimberly Schenter, The University of California - Davis

7.2 Special Session: Consumer Behavior Research and Its Implication for Product/Nutritional Information Programs

Co-Chairs & Discussants

Catherine A. Cole, University of Iowa
Siva K. Balasubramanian, University of Iowa

Characteristics of Successful Product Information Programs

Jay Russo, Cornell University
France Leclerc, Massachusetts Institute of Technology

Individual Differences in Consumers' Willingness To Use Nutritional Information

Catherine A. Cole, University of Iowa
Siva K. Balasubramanian, University of Iowa

The Effects of a Public Nutrition Information Program on Consumer Behavior: The Case Informing the Public About the Risks of Dietary Fat

Daniel S. Putler, Purdue University
Elizabeth Frazao, Economic Research Service, USDA, Washington D.C.

Nutrition Knowledge Levels About Dietary Fats and Cholesterol: 1983-88
Alan S. Levy, Food & Drugs Administration, Washington D.C.
Marilyn Stephenson, Food & Drugs Administration, Washington D.C.

Insights from Multiple Methods Regarding Food Consumption
Melanie Wallendorf, University of Arizona

7.3 Competitive Papers: Information Processing

Chair
Terry Shimp, University of South Carolina

Discussant
Dipanker Chakravarti, University of Arizona

Influence of Problem Recognition on Search and Other Decision Process Variables: A Framework for Analysis
Girish Punj, University of Connecticut
Narasimhan Srinivasan, University of Connecticut

Effect of Locus of Control on Information Search Behavior
Narasimhan Srinivasan, University of Connecticut
Surinder Tikoo, University of Connecticut

Mapping the Relationship Between Preattentive Processing and Attitudes
Stewart Shapiro, University of Arizona
Deborah J. MacInnis, University of Arizona

7.4 Competitive Papers: Family and Household Dynamics

Chair
Susan Spiggle, University of Connecticut

Discussant
Janeen Arnold Costa, University of Utah

Till Death Do We Part: Family Dissolution, Transition, and Consumer Behavior
Ritha Fellerman, University of Massachusetts
Kathleen Debevec, University of Massachusetts

Measuring Conflict in Household Decision Behavior: Read My Lips and Read My Mind
William J. Qualls, Massachusetts Institute of Technology
Francoise Jaffe, University of Michigan

Consumer Socialization Associated with Relocation to a New Community: A Framework and Pilot Study
Cathy Goodwin, University of Manitoba
Murphy Sewall, University of Connecticut

7.5 Special Session: Applying Consumer Research to Social Issues

Chair & Discussant
Elizabeth Hirschman, Rutgers University
Ron P. Hill, Villanova University

Recovering From Drug Addiction: A Phenomenological Account
Elizabeth C. Hirschman, Rutgers University

Helping the Homeless: A Radical Consumer Behavior-Oriented Solution
Ronald Paul Hill, Villanova University

Compulsive Buying and the Mass Media: An Examination of Social Responsibility and Irresponsibility
Ronald J. Faber, University of Minnesota
Thomas C. O'Guinn, University of Illinois

Marketplace Estrangement and Consumer Theft

Anthony Cox, Indiana University

Dena Cox, Indiana University

Consumer Behavior in Strategies for Coping with Divorce

James H. McAlexander, Oregon State University

John W. Schouten, Iowa State University

Scott D. Roberts, Old Dominion University

The Cigarette Advertising Controversy: Assumptions about Consumers, Regulation, and Ourselves

Debra Jones Ringold, University of Baltimore

John E. Calfee, Boston University

7.6 Competitive Papers: Services and Word of Mouth

Chair

Ajay Manrai, University of Pennsylvania

Discussant

John Deighton, University of Chicago

Role of Affect and Need for Interaction in On-Site Service Encounters

Pratibha A. Dabholkar, University of Tennessee

The Role of Post-Experience Comparison Standards in the Evaluation of Unfamiliar Services

Ann L. McGill, Northwestern University

Dawn Iacobucci, Northwestern University

Determinants of Word of Mouth Communications During Product Consumption

Paula Fitzgerald Bone, West Virginia University

SATURDAY, OCTOBER 19

SESSION 8

3:45 pm - 5:15 pm

8.1 Competitive Papers: Factors Influencing Consumption

Chair

Hal Kassarjian, University of California, Los Angeles

Discussant

Deborah Roedder John, University of Minnesota

Buying More than We Can Use: Factors Influencing Forecasts of Consumption Quantity

Mary Frances Luce, Duke University

Product Usage Decisions: Bet You Can't Leave Just One

Valerie Folkes, University of Southern California

Kamal Gupta, J. Walter Thompson, Inc.

Ingrid Martin, University of Southern California

When are Higher Social Class Consumers More and Less Brand Loyal than Lower Social Class Consumers?: The Role of Mediating Variables

Rajesh Kanwar, San Diego State University

Notis Pagiavlas, San Diego State University

8.2 Competitive Papers: Mental Imagery

Chair

Ivan Ross, University of Minnesota

Discussant

Joel Cohen, University of Florida

Playing with Pictures: Postmodernism, Poststructuralism, and Advertising Visuals

Linda M. Scott, University of Colorado - Boulder

Remembrance of Things Past: Music, Autobiographical Memory, and Emotion

Hans Baumgartner, Pennsylvania State University

A Framework Providing Direction for Research on Communications Effects of Mental Imagery-Evoking Advertising Strategies

Laurie Babin, University of Southern Mississippi

Alvin Burns, Louisiana State University

Abhijit Biswas, Louisiana State University

8.3 Special Session: Photography in Ethnographic Consumer Research

Co-Chairs & Discussants

Laurel Anderson, Arizona State University - West

Deborah Heisley, University of California - Los Angeles

Relived the 'Lived' Experience: Photographs as Aid to Understanding Consumer Behavior Phenomena

Ronald Paul Hill, Villanova University

Through Hispanic Eyes: Health Beliefs Through the Eyes of Informant - Camerapersons

Laurel A. Anderson, Arizona State University - West

A Photographic Study of Urban Gentrification and Material Cultural Change

Charles S. Suchar, DePaul University

Vendors and Product Assortments at a Farmer's Market: Photographic Insights

Deborah D. Heisley, University of California - Los Angeles

Mary Ann McGrath, Loyola University - Chicago

John F. Sherry, Jr., Northwestern University

8.4 Special Session: Reference Prices - Past, Present, & Future

Co-Chairs

Kent Monroe, University of Illinois

Ziv Carmon, University of California - Berkeley

Discussant

Peter R. Dickson, Ohio State University

Reference Prices: The Concept, Its Historical Meanings, Theoretical Justifications and Current Research Issues

Kent B. Monroe, University of Illinois

Dhruv Grewal, University of Miami

Larry Compeau, Clarkson University

Examining Alternative Operational Measures of Internal Reference Prices

William O. Bearden, University of South Carolina

Ajit Kaicker, University of South Carolina

Melinda Smith, University of South Carolina

Joel E. Urbany, University of South Carolina

Discounting Price Discount Claims: An Examination of the Effects of Suggested Reference Prices

Ziv Carmon, University of California - Berkeley

Asymmetric Advantage Effects for the Reference Brand
Ravi Dhar, University of California - Berkeley
Glenn Mayhew, University of California - Berkeley

8.5 Special Session: High Moments: Perspectives on Extraordinary Consumer Experience

Co-Chairs

Eric J. Arnould, California State University - Long Beach
Richard L. Celsi, California State University - Long Beach
Linda L. Price, University of Colorado - Boulder

Discussant

Clinton Sanders, University of Connecticut

River Magic: Hedonic Consumption and the Extended Service Encounter

Eric J. Arnould, California State University - Long Beach
Linda L. Price, University of Colorado - Boulder

Transcendent Themes In High Risk Consumption: Flow, Communitas, and Phatic Communion

Richard L. Celsi, California State University - Long Beach

Dancing in the Danger Zone: The Martial Arts in America

John Donohue, Adelphi University

8.6 Competitive Papers: Determinants of Consumer Response

Chair

Mickey Belch, San Diego State University

Discussant

Christie Brown, Stanford University

Incorporating Consumer Judgments into Aggregate Choice Models

W. Steven Perkins, Pennsylvania State University

Validating Realtime Response Measures

Thomas Boyd, University of North Carolina
G. David Hughes, University of North Carolina

Deriving Attribute Utilities from Consideration Sets: An Alternative to Self-Explicated Utilities

David B. Klenosky, DePaul University
W. Steven Perkins, DePaul University

SATURDAY, OCTOBER 19

**Cocktail Party
6:00**

SUNDAY, OCTOBER 20

**SESSION 9
8:30 am - 10:00 am**

9.1 Special Session: New Perspectives for Self-Research

Co-Chairs & Discussants

Beth Walker, Arizona State University
Jerry Olson, Pennsylvania State University

This is Really Me!': Consumer's Search for The Authentic Self
Linda Price, University of Colorado

Narrative Constructions of Self
John Howard, Pennsylvania State University
Jerry Olson, Pennsylvania State University

Conceptualizing Self from a Cognitive Structure Perspective
Beth Walker, Arizona State University

The Self, the Whole Self, and Nothing but the Self: Toward New Theory in Consumer Behavior
John Schouten, University of Portland

9.2 Competitive Papers: Services

Chair
Kim Corfman, New York University

Discussant
Mickey Belch, San Diego State University

Consumer and Employee Roles in Service Encounters
Michael Guiry, University of Florida

Organizational Characteristics and Employee Excuse Making: Passing the Buck for Failed Service Encounters
Donna J. Hill, Bradley University
Robert Baer, Bradley University
Rustan Kosenko, Bradley University

Health Promotion Services Consumption: Involvement and Program Choice
Nora J. Rifon, Michigan State University
Brian Mavis, Michigan State University
Elizabeth Tucker, Michigan State University
Bertram Stoffelmayr, Michigan State University

9.3 Competitive Papers: Measurement Issues in Consumer Research

Chair
Seymour Sudman, University of Illinois, Urbana-Champaign

Discussant
Dawn Iacobucci, Northwestern University

A Factor Analytic Investigation of Belk's Structure of the Materialism Construct
Seth Ellis, University of San Diego

Applying Conjoint Analysis to Social Advertisements
Moshe Engelberg, Stanford University
Rosalind Pierson, Stanford University
Hiroshi Kashio, Stanford University

Confirmatory Factor Analysis of a Country-of-Origin Scale: Initial Results
R. Mohan Pisharodi, Oakland University
Ravi Parameswaran, Oakland University

9.4 Competitive Papers: Music

Chair
Ed McQuarrie, Santa Clara University

Discussant
Brian Wansink, Dartmouth College, Tuck School of Business

The Use of Rap Music in Children's Advertising

M. Elizabeth Blair, Ohio University
Mark N. Hatala, Ohio University

The Experience of Time as a Function of Musical Loudness and Gender of Listener

James J. Kellaris, University of Cincinnati
Moses B. Altsech, Pennsylvania State University

Consumer Esthetics Outside the Lab: Preliminary Report on a Musical Field Study

James J. Kellaris, University of Cincinnati

9.5 Special Session: To Choose or Not to Choose: This is the Question

Chair

Ravi Dhar, University of California - Berkeley

Discussant

Itamar Simonson, University of California - Berkeley

Knowing if You Really Want It: Task and Context Effects on Choosing

Ravi Dhar, University of California - Berkeley

Decision Seeking and Decision Aversion

Jane Beattie, University of Chicago
Jonathan Baron, University of Pennsylvania
John C. Hershey, University of Pennsylvania
Mark Spranca, University of California - Berkeley

Individual Differences in Consumer Time Preference

George Loewenstein, Carnegie-Mellon University
Drazen Prelec, Massachusetts Institute of Technology

Consumption of Uncertainty

Dan Lovallo, University of California - Berkeley
Daniel Kahneman, University of California - Berkeley

9.6 Competitive Papers: Expressive Culture and Consumer Behavior

Chair

Michelle Bergadaa, ESSEC

Discussant

John McCarty, University of Illinois, Urbana-Champaign

Good Guys Don't Wear Polyester: Consumption Ideology in Detective Stories

Cathy Goodwin, University of Manitoba

The Marlboro Man as a 20th Century David: A Philosophical Inquiry into the Aristotelian Aesthetic of Advertising

Barry Vacker, University of Texas - Austin

Consumers and Movies: Information Sources for Experiential Products

Elizabeth Cooper-Martin, Georgetown University

SUNDAY, OCTOBER 20

**SESSION 10
10:30 am - 12:00 pm**

10.1 Competitive Papers: Cognitive Resources and Consumer Response

Chair

Michael Lynn, University of Houston

Discussant

Marla Felcher, Northwestern University

Involvement and Advertisement Size Effects on Information Processing

Jin K. Han, Columbia University

Clarifying the Simple Assumption of the Information Load Paradigm

Robert S. Owen, Ohio State University

The Influence of Level of Involvement on the Feature Matching Process in Consumer Preference Judgments

Alan Strathman, University of Missouri

David S. Boninger, University of California - Los Angeles

Sara M. Baker, Ohio State University

10.2 Competitive Papers: Models of Memory

Chair

Eloise Coupey, University of Illinois, Urbana-Champaign

Discussant

Curtis P. Haugtvedt, Ohio State University

A Spreading Activation Model of Consumers' Asymmetric Similarity Judgment

Ehsan Ulhaque, University of Texas - Arlington

Kenneth D. Bahn, University of Texas - Arlington

Schemata in Consumer Research: A Connectionist Approach

Tom J. Brown, University of Wisconsin - Madison

Priming and Implicit Memory: A Review and a Synthesis Relevant for Consumer Behavior

Abhijit Sanyal, University of Massachusetts

10.3 Special Session: The Effects of Consumer Goals on Product Category Learning and Representation, Attitudes, and Choice

Chair

Michael L. Ray, Stanford University

Discussant

C.W. Park, University of Pittsburgh

Goal-Directed Experiences and the Development of Consumer Knowledge

Cynthia Huffman, University of Pennsylvania

Goal-Derived Product Categories: Situational and Individual Determinants

Cornelia Pechmann, University of California - Irvine

S. Ratneshwar, University of Florida

Allan D. Shocker, University of Minnesota

Consumption Goals and Extension Advertising: Communicating New Uses For Old Products

Brian Wansink, Dartmouth College, Tuck School of Business

Michael L. Ray, Stanford University

10.4 Competitive Papers: Measurement Issues

Chair

George Zinkham, University of Houston

Discussant

Ved Prakash, Morgan State University

The Development of a Measure to Assess Viewers' Judgments of the Creativity of an Advertisement: A Preliminary Study

Gabriele S. Haberland, University of Wisconsin - Madison

Peter A. Dacin, University of Wisconsin - Madison

A Multiphase Thought Elicitation Coding Scheme for Cognitive Response Analysis

Paul L. Sauer, Canisius College

Peter R. Dickson, Ohio State University

Kenneth Lord, SUNY - Buffalo

Scales to Measure Social Power in a Consumer Context

Jonathan E. Brill, Temple University

10.5 Special Session: Multicultural Perspectives on Identity and Consumer Behavior: A 'Thick' Introspective Approach

Chair

Stephen Gould, Rutgers University

Discussant

Morris Holbrook, Columbia University

Insider Versus Outsider: The Effects of Feminism on Consumption

Julia Bristol, University of Houston

Reflections of a Black Middle-Class Consumer: Caught Between Two Worlds or Getting the Best of Both?

Jerome Williams, Pennsylvania State University

Something for Everyone -- Unless You're Gay

Jeffrey Vitale, Overlooked Opinions

Self-Fashioning Oneself Cross-Culturally: Consumption as the Determined and the Determining

Stephen Gould, Rutgers University

Robert Stinerock, Fairleigh Dickinson University

10.6 Competitive Papers: Issues in Consumer Protection

Chair

Alan Andreasen, University of Connecticut

Discussant

William Wilkie, University of Notre Dame

Implications of the Symbolic Interactionism Perspective for the Study of Environmentally-Responsible Consumption

Ed Petkus, Jr., University of Tennessee

Consumer Assessments of Responsibility for Product-Related Injuries: The Impact of Regulations, Warnings, and Promotional Policies

Mitch Griffin, Bradley University

Barry J. Babin, University of Southern Mississippi

William R. Darden, Louisiana State University

Extended Warranties: A Behavioral Perspective

Glenn B. Voss, Texas A&M University

Irfan Ahmed, Texas A&M University

PRESIDENTIAL ADDRESS
Constructing Consumer Behavior: A Grand Template
Sidney J. Levy, Northwestern University

This is one of the most exciting times in my life. Some of you may not have realized when I was elected that you were getting the oldest president ACR has ever had. After thirty years at Northwestern University, I have just become a professor emeritus. For younger presidents of ACR, election was a fine achievement along the way; for me, it is a kind of culmination or peak of a long career. I submitted my first professional article to the *Journal of Educational Psychology* in 1946; and I recently received an acceptance for the December 1991 issue of the *Journal of Consumer Research*.

It was hard to decide what to talk about today. The good thing was, I had two years to think about it since I was elected. The bad thing was, I had to think about it for two years. Being a thorough-going obsessive academic, I've had many a sleepless night ruminating about what to say. By now, I may actually have forgotten most of my best ideas.

Presidential talks have many possibilities. They are often concerned with urging us toward excellence or creativity. They recall our glorious history, and the giants on whose shoulders we stand. They appraise the state of the art, explaining how new methods and new subjects are changing our realms of inquiry. They may look to the future, telling where we are going or where we should be going; Morris Holbrook (1990) recently told us that we should be more lyrical and last year Elizabeth Hirschman (1991) asked that we be more concerned with contemporary problems such as crime, prostitution, and addiction. When I finally settled to it, I decided that when all was said and done, the only thing I could do was to be myself and to talk about my current preoccupations. What they amount to is a summary of how I think about the study of consumer behavior, in keeping with the integrative thrust in Erik Erikson's (1982) description of the elderly stage of life. I keep thinking about the multiple ways we have of explaining the Consumer Event.

When I started to study consumer behavior in 1948, I had certain main interests as a graduate student in an interdisciplinary program. My work for a degree with the Committee on Human Development at the University of Chicago, made possible by the G.I. Bill, stimulated an enduring concern with the stages of the life cycle. I was absorbed in personality study, especially as expressed in psychoanalytic theories, and as investigated through the use of projective techniques. I also was thoroughly indoctrinated in the importance of stratification as a fact of social life.

These topics intrigued me. I was a setup for the bold probing of depth psychology because I had always been a shy, introspective boy who read a lot, searching intently to learn about the mysteries of life, especially those related to sex and violence. At the time, I hardly even thought to expect explanations of these mysteries--it was enough to gain an increasingly vivid awareness of the enigmas of human history, the

amazing complications of life as conveyed in school, in books, on the radio, and especially in the movies. For a suppressed and repressed boy growing up in a proper household and working class neighborhood, the fear of violence could be mastered somewhat by vicarious experience. There was also the possibility that in these media I might run into some exciting information or depiction of sex, to find out what people really did in private--that is, of course, other people who were beyond the hairy-handed Pee-Wee Herman stage, who were more grown-up, more experienced, and more daring than I was. I remember being so irked and frustrated that the best parts of *The Decameron* of Boccaccio were in Latin. The newspapers recently reported a survey of the frequency with which men think about sex: an average of six times an hour. I'll probably use more times than my share during this talk, as I always remember the quotation in a study of sex, contraception, and family planning by Lee Rainwater, from a subject who said, "Before I was married I was scared of sex. I thought it was a crime to do something like that. [Afterwards], I found out that...let's put it this way, if God made anything better he kept it to himself." (1960, 97).

Depth psychology theories also please me because no matter how challenged or modified by their neo forms, they offer a sense of revelation, of taking us toward a layered understanding of the human psyche, with vigorous positions on what human nature is like, and how behavior arises from the ways our bodies and emerging personalities interact with our families and caretakers. Depth psychology recognizes issues that should be important in the study of consumer behavior: history, complexity, multi-causation, the symbolic and the evaluative character of experience. The role of motivation becomes salient; we are energetic, impulsive, surging creatures, so we cannot blame everything on external stimuli. And the power of perceived good and evil that we invest in all objects and actions plays its part. If we do not bring such richness to the study of consumer behavior, our constructs are simple, our variables are superficial, and results often just summarize observations or fit our intuition and mere common sense. Then we do not need much expertise. My colleague, Dipak Jain, tells me that in India dream interpreters say that happy dreams are bad omens and unhappy dreams are good portents. I realized that such contradictory complexity is wise and necessary; if only because were it not so, we would take the dreams at face value and would not then need the dream interpreters. In any event, we need subtlety because consumers commonly cannot adequately explain their own behavior, even if Scott Armstrong (1991) provides some evidence that they can predict it better than we can.

The study of social stratification is a way of becoming alert to the inevitability of hierarchy in human affairs. The uneven acquisition and distribution of resources, the different socio-economic levels in

society, make for outstanding variations in consumer behavior, pointing to the dynamic forces of aspiration and competition. As a Depression child, a poor boy in a family that was for a time on relief (as we called welfare then), I learned vividly the realities of some people having more and others having less. W. L. Lloyd Warner (1949) later taught me that every person occupies a social place that reflects how the community perceives the value of the individual's family status and participation. Circularly, that perception governs how much each of us gets in deference and money, and is also based on how that income is translated into symbols of status belonging and expression. A recent survey by NORC showed how the prestige of 740 occupations was ranked by a sample of adults: surgeons, astronauts, lawyers, and college professors were ranked highly, whereas panhandlers and fortune tellers were at the bottom. Such knowledge fed my striving to be socially mobile and to associate with professors--although I confess fortune tellers are still among my best friends, and someone wrote a letter to the editor pointing out that St. Francis of Assisi was a panhandler.

I am reminding us of these rudiments of psychology and sociology as a basis for my vision of our common enterprise in carrying out consumer research. I see us all working together in our various ways, seeking to construct and fill out a grand template of what consumer behavior is about. Following in the august steps of the Mendeléff periodic table that laid out a pattern of what was known and might be known of the world's chemical elements, of the various visualizations of the atom and the universe, and of the current efforts to map the human genome, I picture in my mind a large configuration that represents an ideal goal of the knowledge toward which we work. This configuration draws upon the many disciplines that contribute to the study of consumers, it respects the numerous methods that are used, and encourages the contention of concepts that compete to provide explanations. Thus, this grand consumer research template is integrative and dynamic, organized and full of life.

The grand template stretches over the whole society and its structure, and by extension to other societies, so that we study across cultures to discern their commonalities and differences. Examining consumers in the large social groups that are geographically and culturally dispersed around the world superimposes the template over the globe. It has to address consuming at the level of the great millions of people wishing to be fed, clothed, and housed in basic, ongoing ways. This realm of problems connects us to a commodities-oriented and economics-oriented world in which consumers are at the tender, and often not so tender, mercies of governments, non-profit organizations, and the multi-national corporations that provide or do not provide life's fundamentals of a viable housing stock, sustenance, and some fabric for dresses, shirts, and trousers, to say nothing of essential needs for health, education, and participation in the arts.

We may hope that some day those subsisting hungrily will be elevated to situations in which

models of consumer brand choice suited to a prosperous environment will become more relevant to them, also; although at even the most basic levels of consumption, one finds subtleties of preference and choice being exercised. The latitudes, longitudes, and isobars of international consumption bring forth issues of cultural diffusion, images of countries of origin, and how consumers will and will not retain their local identities in the face of globalization, the European Community, and the seductive and homogenizing effects of Coca-Cola, McDonalds, Levis, and Disney parks. There is the need to reconcile and make sense of the admixtures of the old and the new. I recall seeing a timeless looking woman trudging down the street in Bangkok, wearing a coolie hat and traditional shift, bearing on her shoulder a pole with two suspended baskets of fruit. And on her feet were Reebok running shoes.

Thus, considerations of social stratification move us up and down among countries and societies in a Maslovian manner. Maslow is the source of a famous template; I have noticed that his hierarchy of needs is highly favored by students as one of the great explanatory devices of modern social science, and I grew up on it, too. It points to the consumer's need for basic satisfactions of feeding, security, love, and other sorts of intangible, ethereal, and emotional fulfillments, as well.

In forming the Grand Template, ideas about social stratification interact with ideas about the stages of the life cycle. People are born to the socioeconomic status of their families, and they absorb (and react against) the outlook and values provided by that social and interpersonal environment. These basic relations are paradigmatic, dramatized in the various famous Complexes of Oedipus, Electra, Orestes, and Tom Sawyer. They act as a matrix and initial filter for all social relationships. As people mature in age, they may remain at the same social level or change their position through upward or downward mobility. These two important forms of hierarchy, social status and age, imply increasing superiority with greater levels. Centrally, this increasing superiority refers to having more power, economically and socially. This power is the ability to control and command more resources, ultimately to make more choices. Even if one remains at the same socioeconomic level, growing up leads to an increase in resources and power, through the increasing capacity to make choices. The nature of the choices--of how to live, what to buy, what to consume--is the outcome of the interaction of social status and age-grading with other main influences. Intertwining with social position and the life cycle are gender and sexuality, group memberships (race, peers, education, occupation, etc.), the nature and events of immediate situations, and the features of products. That is, the person--and as a person, a personality with developed perceptual and motivational propensities--arrives at the Consumer Event; whatever it is, more or less prepared to interpret it and to decide what to do about it.

The definition of the situation at each given moment in time and place is in various ways

demanding, permissive, and constraining. It says what one can do, may do, might do, should do, must do, cannot do, etc., and we work, perhaps even struggle, to analyze scientifically how the consumer's selection among these possibilities is determined by a confluence of circumstances that makes the consumer's performance a necessary outcome. If we knew J. Alfred Prufrock well enough, could we predict how he will wear his hair and roll his trousers, or if he would dare to eat a peach?

The choice (the apparent choice?) is the result of being that physical person of specific age, sex, social level, trained role, personality facets (self-concepts and attributions) in a mood that is under the influence of the weather, what was previously eaten, being delayed on the expressway, the imminence of a parental visit, the pressure of marketing promotions, and being confronted by products, people, services, and/or ideas of high, medium, or low involvement.

The grand template is a highly ramified nomological network, and everyone who conducts consumer research works at filling in aspects of it, providing content about elements of its structure, its processes, its methods of inquiry, and philosophies about its science and its values. Now, rather than leaving the thought as a blank truistic generalization, I'll indicate some of the content that interests me in the template, ideas about consumers based on my education and the kinds of research in which I have participated.

I see consumers as goal-oriented and seeking, living out their destinies--that is, lifetimes of consuming--that have the potential for infinite variety. I don't know more than anyone else whether it is all random, determined, or allows for free choice. Taken in the aggregate, it may be as stochastic as the dance of sub-atomic particles seems to be; but we also analyze the Consumer Event as the necessary outcome of its antecedents; and even so, grant each other the dignity of believing we are responsible for our will and decisions. Perhaps consumer behavior, similar to light's being both wave-like and discrete, is both caused and free. Out to consume, people show several principles at work.

A fundamental attribute is memory. Memory refers to our ability to bind time, to be self-conscious, to know ourselves and others over time. Without memory we lose our identity and live sadly only from moment to moment. We older folks joke about it with gallows humor to show that we retain self-awareness--or I would joke about it if I could recall what I just said. Human memory means accumulating and handling knowledge in various characteristic ways. That is why the study of information processing is so important to us. Our research template is possible because we can put our knowledge together in our journals, our classes, and at conferences like this one. Perhaps even more remarkable than memory is our ability to think about the future, to plan, to anticipate, and to imagine the unfolding of possibilities. Beyond memory is the use we make of it to dream about it, to re-construct the past, to fantasize about the future. Quite wondrous is our need to yield ourselves up to music, pictures, and word-play, to keep explaining

through history, drama, fiction, biography, songs, movies, opera (both grand and soap), and through consumer research, the stories of our lives.

Keeping us powerfully in flux is the fundamental quality of ambivalence. Consumers are ambivalent about the Consumer Event; they are often uncertain, making inferences that vie with each other, as they try to decide in essence who they are, and what their decision will signify as to who they are. They must select actions in the template of possible meanings that will assert their position at the intersections of several dimensions. They are quick and relatively thoughtless in their decisions when these positions are well-established. However, more generally, ambivalence leads to some volatility, pendulum swings in consumer attitudes, and movement up and down the template as motivational devotions wax and wane in response to external pressures and opportunities.

Among the forces at work is insatiability. There is an open-endedness to human desires that allows us to keep wanting, that encourages us to innovate and offer endless novelty with the assurance that there will always be those who want this. Thus, out of every node in the consumer template, there grows a proliferation of alternatives, sometimes contrasting dramatically, sometimes extending tiny and, to the jaundiced eye, trivial differences. Yet, we have the capacity to detect them, and to find them worthy of making distinctions and preferences. The force of insatiability produces perpetual striving and the extremes of selfishness, greed, and boredom; it maximizes and enlarges the assertion of the individual's power and material substance.

Opposing insatiability is socialization, the pressure upon us to be virtuous, to comply with propriety, to be self-denying and altruistic in the interests of sharing. The goal is to be a good person, giving, nurturant, caring for others, and conserving of resources on behalf of our posterity. Extreme socialization may become rigid obedience, exalting the group requirements and submitting to its norms, consuming according to the prescription of authority; it may become tyranny and pathological consuming. When people go to the extremes, they show how utterly vile human beings can be, capable of the most egocentric gratifications in consuming nations, peoples, and even persons--whether in a Hitler Holocaust, a Dahmer dinner, or seeking sexual service on a sleazy city street.

We are all subject to the contention between the issues of individualism and sociality, and move between how much we care for ourselves and for others. I spent a year studying in a college social studies course called Freedom and Control, and to this day I still fret about how to resolve for myself the endless dilemmas posed by the conflict between my great American wish to maximize personal freedom, to stubbornly think my deviant thoughts and go my way, and my benevolent desire to live in harmony with my family, friends, and neighbors. Too often I fear I am obedient and conforming, yielding to wear what is in, eating what I am told is good for me, wanting to read

the latest highly touted book, and studying how large groups in the public do the same.

I speculate about the sources of these Consumer Events, the ambivalent human nature that motors the template, that makes us think some things are good or bad, desirable or not. I know some of you are familiar with the small piece of the template that I have offered (Levy 1986) in trying to account for the choices people make among all the beverages available to them. One might suppose that plain milk and water would suffice for us all; and I think they could. But no, we must have them processed, flavored, colored, textured, packaged and priced, to allow us to indicate the character of our distinct and changing social positions, our gender, our stage in the life cycle, our personality strivings, and subtle variations in mood. It is then striking to observe that as people mature from drinking milk as infants and from the healthy soups and juices that good parents provide to loved children, they break free to soft drinks with their festive carbonation, and perhaps to coffee and tea with their bitterness and caffeine. The fullest testament to maturity and freedom to choose among beverages comes with the addition of alcohol. It seems a telling commentary that people apparently aspire to the freedom to drink things that are strong in their effects and usually taste terrible, at least until we force ourselves to get used to them. Beverages are just an example; there seems to be a correlation between being more mature, having higher social status, and doing more or less bad things, because those bad things represent adulthood, independence, the freedom to stimulate one's body and mind, and to abandon the innocence and blandness of merely sweet and healthy things and the constraints that hamper lower status people. These issues relate to the large central problem of good and evil in consumption, about which we are in constant contention, explicitly or implicitly, on a local scale in our small daily choices, and on a grand scale in just giving lip service or in really worrying about consuming the resources of Earth.

Aristotle told us that all things come to be by nature or by making, and our competing feelings about nature versus culture have always plagued us. The higher social status represented by beverages that seem hard to take and unnatural to drink remind that the motivation of people toward higher social status is to gain increasing appreciation of culture, and what it creates. That means behaving in unnatural ways by making and acquiring objects, by competing to show one has superior economic power to own and accumulate objects that are rare, individual, costly to make. Thus, as one moves up the template, life becomes more deliberate, the array of choices widens, there is an increasing cachet to being able to make subtle discriminations that are unavailable to lesser mortals.

As I wondered about these matters, I thought that there was also a simple relationship with gender, that being aggressively individualistic and evil was a masculine thing while being well-behaved and compliant was feminine; and I know that much conventional thinking would agree with me because

that is one way we have been socialized. Pursuing that line, I thought that the beverage template implied that we are born innocent and virtuous, weak and feminine, and that as we progressed to consume ever stronger liquids, we could eventually become a mature, manly, high class scotch or brandy drinker, at the pinnacle looking down along a longitude line of the consumption template, on all the lesser lower class, youthful, female weaklings with their watery beer and milky pink ladies.

However, as I sought to generalize these ideas, seeking consistency and parsimony, to fit them to other realms of the grand template, I ran into trouble. Going up the template may indeed provide more variety, and the objects available to higher status people are often costly and rare. Color shifts show also some generality; for example, with clothing as with beverages, immaturity is represented by pure, simple, light pastel colors, youth and young adults by brighter colors, and maturity by depth, richness, and darkness. However, how can we reconcile that with the connection to social status and gender? Traditionally, for instance, dark breads were peasant breads, close to the soil and lacking refinement, so that going up the scale meant gaining access to white bread. To complicate the matter, dark breads lately have become attractive to higher status people.

A similar confusion arises with respect to gender. If going up the template by means of being socialized to free individual choices, to arrive at the sophisticated, high status, socially powerful male, how can we account for the traditional role of women as socializing the family, seeing to the lifestyle and consumption patterns correct for the position of the family? And how take account of women in newly powerful, high status roles? My earlier understanding seemed too simple, too parsimonious, too dominated by traditional stereotypes, not fundamental enough in being able to accommodate more varieties of Consumer Events as they arise.

Then a light bulb went on over my head, another one of those illuminations to which I am prone, when something I already know comes flashing back as a fresh insight. I realized that the innocent baby implies the goodness of Rousseau's human beings, uncivilized but noble in a state of nature, being corrupted by the powerful male consumerism and materialism of society and the evil city; and that this was only one theory or philosophy, one thread in reality. Another theory maintains that we are born bad, lustful, gross, egocentric, enslaved by the pleasure principle, and that the process of socialization is a benign one in which mothers domesticate and tame the brute, animalistic forces that drive us. Thus, women complicate and modify the beverage template with ideas of refinement, fine glassware, social events, and the notion of becoming more discriminating. They introduce a sense of aesthetics and manners, furnishing the home, the idea of caring for the young and sharing in the community. They foster temperance, compromise, and restraint, and encourage us to obey the social and medically authoritative pressures that tell us to cut out or cut

down on sugar, salt, caffeine, alcohol, fat, cholesterol, and nicotine.

I had arrived at a point in this intellectual journey where combining Rousseau and Freud in my fashion told me that men and women were equally important influences in affecting consumers to strive for cultured behavior, with the male principle being bad and the female good. The enjoyment I found in this thought seemed to demonstrate that it must be correct. But I could not stop there. I am an ardent feminist. My mother worked outside the home most of her life; my wife is a wonderfully capable professional woman; and my lawyer daughter has a sharp and realistic legal mind. My women colleagues and students show me their strong intellectual and managerial capacities. I am also realistic about all these women and do not merely romanticize them and their assets. I believe they will be free to be as good and as bad as males. But I don't think being feminist means ignoring gender, sex, and sexuality in their myriad of expressions and effects on consumer behavior, as we cope with working women, dual careers, expensive toys for children of guilty parents, and convenience foods when working becomes more important than eating.

So, pushing on, I was motivated to read and think more about these basic gender roots and roles in my template. I was reminded of the role of great heroes, good loving men, benevolent fathers, of Apollo, symbol of the Sun and the benign, curative traits in men. Conversely, there is the role of Eve as temptress, and Lilith, in some stories said to be Adam's first wife and symbolic of the Terrible Mother; and the many goddesses and witches with great and awful power. One can only conclude that there is ample evidence for the influence of the good father and the bad father, the good mother and the bad mother, and their respective roles in affecting what we find good and bad in our consuming. Marija Gimbutas on *The Language of the Goddess* (1989), Hans Peter Duerr on *Dreamtime* (1985), concerning the boundary between wilderness and civilization, where he explains the meaning of witches, and David Parkin's collection on *The Anthropology of Evil* (1985), help to illuminate for me some of these profound forces. Camille Paglia, in her book, *Sexual Personae: Art and Decadence from Nefertiti to Emily Dickinson* (1991), says men are responsible for that glorious erection called civilization, but in building their towers of transcendence they can never escape the primal pull of the earth mother. That sounds like an anxious situation for men, and they seek security. Paglia's thought brought to mind a little four year old boy I saw on a sunny day playing naked in the back yard. As he ran about, he clung to his penis. When someone asked him why he did that, he answered, "That's so I won't fall down."

The male and female principles take their different forms, both being inevitably bound together in our resultant mundane consumer actions. Each consumer has an idiosyncratic mix of experiences, prenatally, and from launching at birth, and pursues self-consciousness and identity, carrying these ultimate bi-sexualities and their mixtures of good and

bad, not as a simple ambivalence, but as a fourfold helix. Up the template they intertwine, determining who we are and what we do at moments of decision and consumer action. Each Consumer Event in the template is a summary at a point in time of the particular blend of gender forces, located in a particular cultural setting, expressing our motivations and perceptions directed toward some degrees of individuality and conformity.

The challenge we share is to contribute to the delineation of what I have presumptuously called the grand template in all its breadth and detail, with all our methods, intellectual power, and sympathy. I call it a *template* because that word packs into it so many of the thoughts I have tried to convey here to substantiate the seriousness and profundity of our subject matter. It refers to a *temple*, a sacred place that symbolizes the cosmos and its divisions, to the spiritual and virtuous elements of our aspirations and goals of our consumption of ideas, art, religion. It refers to *temptation*, the need to satisfy our animal selves and uncontrolled impulses. And it means that consumption is *temporary* and needs replenishment. The *plate* tells of our destiny as consumers, what is on our plate as workers in general, and as eaters in particular. The element *late* reminds us of the life cycle, that consuming is finite, that we can consume only so much before we too will be consumed. The *a*, *t*, and *e* form the word *Ate*, the name of a Greek goddess personifying foolhardy and ruinous impulse, telling us to be self-critical and to moderate our consumption. These letters also spell *ate*, reminding us that we indeed have eaten, and that this luncheon is now finished. I thank you for your kind attention.

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6 / Presidential Address: Constructing Consumer Behavior: A Grand Template

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Science Research Associates, Inc.

**On Debts Due:
Presentation of ACR Fellow-In-Consumer-Behavior Awards
Jerome B. Kernan, George Mason University**

It is my great pleasure to introduce this year's FELLOWS IN CONSUMER BEHAVIOR -- Paul E. Green and Joseph W. Newman. Each of them has contributed significantly and over a number of years to our discipline and to our organization. We are proud to add their names to the pantheon of ACR Fellows.

PAUL E. GREEN

Paul Green is the S.S. Kresge Professor of Marketing at the University of Pennsylvania's Wharton School, where he has been since 1962, and from which he received his A.B., A.M., and Ph.D. degrees. Previously, he worked for Sun Oil, Lukens Steel, and duPont.

To say that Paul is a researcher is to allow that Nolan Ryan can throw a baseball. For more than 30 years, we have witnessed a prodigious stream of his books, monographs, chapters, articles, technical reports, and conference papers. He produces ideas quicker than most of us can digest them and it's no surprise that he's at the top of everyone's most-cited list. All consumer researchers have learned from him; indeed, if you've ever struggled with perceptions, preferences, measurement techniques, or quantitative analysis, it's likely that you've consulted Paul Green's work. Or you're from another planet.

But Paul is far more than his bibliography, overwhelming as that is. His direct imprint is on a galaxy of Wharton Ph.D.s and he has guided any number of other budding researchers as a fixture at the annual AMA doctoral consortium. He sits on more editorial boards than most of us can contemplate, yet his reviews read like tutorials. Add guest lecturing and consulting requests to everything else and we see one very busy person. Yet he *always* has time for even the least-connected among us and he *invariably* gives us words of encouragement. Indeed, if you're ever tempted to feel arrogant, just hang around Paul for a while; he'll show you what sincerity and humility are all about. And such a sense of humor!

Little wonder that Paul has received virtually every accolade on the horizon -- the Alpha Kappa Psi award, the Converse, Parlin, and O'Dell prizes and, earlier this year, the AMA/Irwin Distinguished Educator award. He's been elected to the Attitude Research Hall of Fame and he is a Fellow of the American Institute of Decision Sciences, the American Statistical Association, and now, I'm happy to proclaim, the Association for Consumer Research.

Paul's plaque names him an ACR Fellow "... for his legacy of contributions in consumer perceptions and preferences--as researcher, teacher, and mentor." I'm honored to present this award to a giant among us, who happens to be a wonderful person as well. And a dear friend.

JOSEPH W. NEWMAN

JOE NEWMAN is Professor of Marketing Emeritus at the University of Arizona's Eller School of

Management. He received his B.S. and M.S. from Kansas State and, after WWII service in the Navy, his MBA and D.C.S. from Harvard. Prior to his appointment as department chair at Arizona, Joe served on the faculty at Michigan, Stanford, and Harvard. He also worked as a newspaper man, sports information director, and media analyst.

One of the responsibilities of the Fellows' Committee is to evaluate nominees' contributions *in perspective* and, in the case of Joe Newman, that is especially important. His resume contains all the expected achievements--a fist-full of books, a score of papers; editorial-board membership for the JOURNAL OF MARKETING, JMR, and JCR; a legacy of Ph.D. students; significant consultancies; and distinguished service to both ACR and AMA. But we need to peel back that veneer of line-items to understand why Joe Newman is being honored today.

Here is a man whose career has spanned four decades. That's significant because, when Joe began his consumer research, the discipline *didn't exist*. Many of you remember or have heard about the skepticism we faced during the late '60s regarding the academic integrity of consumer behavior--the frustration that led to the formation of ACR in 1969. Just imagine how much *worse* it was in the '50s! There was no ACR; no JCR; not even a JMR; nothing to legitimize what we believed to be reasonable scholarship. Hostility was everywhere; the best we could expect was to be patronized. But then, as in all happy stories, we were rescued. We found our deliverance in 525-page book published in 1957 by the Harvard Business School. MOTIVATION RESEARCH AND MARKETING MANAGEMENT, which was based on Joe's doctoral dissertation, gave us respectability. People you might recognize had been working in qualitative research--Steuart Britt, Sid Levy, Burleigh Gardner, Pierre Martineau, Ernest Dichter, Darrell Lucas, to name a few--*but all these people were associated with the advertising business; none of them was a university professor*. As a result, it was easy for those so inclined to dismiss these efforts as the legerdemain of HIDDEN PERSUADERS. The preface to Joe's book advised us "... to get better acquainted with the behavioral disciplines, which are devoted to ... what man is and how he lives." He then went on to illustrate not only why, but *how* qualitative research yielded deep understanding of consumer behavior. Well, that was all we needed-- here was an *academic scholar*, whose message had a Harvard Business School imprimatur. Even the most stubborn academic administrator couldn't resist that combination. Joe was our hero and we were on our way. Momentum has never subsided and the rest, as they say, is history.

Joe Newman is a quiet man, who works away from the limelight. But don't be misled by his self-effacing manner; in innumerable ways that few of us will ever know, he knocked down a lot of professional

8 / Presentation of ACR Fellow-In-Consumer Awards

obstacles and showed us the path, as the consumer-behavior discipline came into being. So the next time you're doing qualitative research, remember--Joe Newman paved the way. Or when you research consumer-decision processes, realize that Joe's pioneering work in that genre dates from the early '70s. We're here to recognize our intellectual and professional debts to a man who has such personal grace and integrity that he's embarrassed by all this.

This plaque acknowledges Joe's pioneering investigations of consumer motivation and decision making--as researcher, teacher, and mentor--but in a larger sense, it confirms our longstanding debt to a gentleman who's made our field a lot more exciting and humane. I present this to you, Joe, with our deep appreciation and affection.

FELLOW'S AWARD SPEECH
Musings on Method in Consumer Research
Paul E. Green, University of Pennsylvania

INTRODUCTION

I'm deeply grateful to have been elected a fellow of the ACR. As an unabashed and sometimes outspoken methodologist, I was rather surprised to see my name added to a distinguished list of bonafide consumer researchers. As a tottering sexagenarian, I was particularly happy to join the ranks while I could still climb the stairs to the podium.

Even in an age of naturalism and postmodernism (Lutz 1989), traditional methodology still holds a place in consumer research. Indeed, alongside the venerable ANOVA and ANCOVA models, we are becoming increasingly familiar with the path diagrams and related tools of covariance structure analysis.

One early thought that I had was to regale you with a long list of technical advances in methodology—a kind of showcase of what may be in store for the nineties. (A 30-minute cap on the length of the talk fortunately quashed that notion.)

So, quite the contrary, my topic is on the role of *simple* models in consumer research. Over the past several years, I've become impressed with how good simple, robust models of decision making can be. But before getting into that subject, let me digress a little and talk about robustness in other contexts.

ROBUST QUALITY DESIGN

Today's quality control engineers speak almost as one voice in extolling the virtues of robust quality design, particularly Taguchi methods (Dehnad 1989). Quality engineers call the uncontrollable variables that cause characteristics of a product to deviate from their target values *noise* factors. These factors consist of: (a) external variations in the product's operating environment (e.g., temperature, humidity, or vibrations); (b) variations in product parameters during manufacturing; and (c) product deterioration over time and use.

Robust design engineers seek to produce a product that is robust with respect to all three categories of noise. This idea is operationalized by setting up experiments where the problem is to find engineering designs that maximize the signal to noise ratio while still keeping the parameters' mean values on target.

Conjoint analysts will be happy to learn that Taguchi and his followers are avid users of orthogonal arrays when designing the necessary experiments for building in quality robustness.

ADAPTIVE PROCESS CONTROL

My second example is also from the production sector. Since the early fifties, process engineers have been interested in response surface methods for optimizing productivity. Simple mathematical models—typically generalized quadratic functions—are chosen to represent the effect of a key set of control

variables on the yield of some chemical or physical process.

Experiments are set up to find settings of the control variables that optimize process yield. However, that's only a start. Processes change over time and generate the need for continuous fine tuning. This is where the methodology of *EVolutionary Operation* (or EVOP, for short; Box and Draper 1969) comes in.

EVOP is a management tool in which continuous investigation and experimentation serve as the basic mode for running a production facility. In EVOP, a process should be operated in such a way as not only to produce saleable product but also to produce information on how to *improve* the product in the future.

EVOP does this by carefully conducting on-line experiments in which process control variables are systematically varied during actual production runs. But they're varied in such a way that usable product is still produced. As environmental variables change, the control variable settings adapt in a more or less continuous approach to optimal response seeking.

The model of an EVOP process is (generally) a simple statistical, low-order polynomial representation that may have little relationship to the underlying chemistry of the process. In the words of the psychologist, Paul Hoffman (1960), it is a *paramorphic* model of the process. And, it's not unlike our simplified models for representing human judgment and choice. Again, highly fractionated factorial designs are used in implementing the EVOP experiments.

STATISTICAL ESTIMATION

My third example is from the statistics literature. Today's statisticians are becoming increasingly interested in robust methods for computing measures of location and dispersion (Huber 1981), as well as fancier estimation procedures for such multivariate techniques as discriminant analysis, factor analysis, cluster analysis, and multidimensional scaling (Spence and Lewandowsky 1989; Heiser 1987; Gnanadesikan and Kettenring 1972).

In statistics, the robustness of a procedure is defined as the property that makes the technique's answers reasonably insensitive to the kinds of departures from ideal assumptions that often occur in practical situations. When statisticians work with models, they are usually less interested in whether the model is "true" and more interested in whether it is illuminating and useful under a variety of contingencies.

Much of this research has focused on the modification of least squares estimation so that outliers have less influence on final parameter estimates. Order statistics, such as the median or quantile, and various kinds of trimmed means are typically employed. Much of the work on robust

statistical methods has gone on, in parallel, with computer intensive methods like flexible regression (Cleveland 1979; Rust 1989) and the bootstrap resampling method.

In sum, the development and application of robust models and methods is an ongoing enterprise in a variety of disciplines.

MULTIATTRIBUTE MODELS OF JUDGMENT AND CHOICE

One thing in which virtually all consumer researchers have interest is multiattribute models for judgment and choice. Over the years, the contributions of Paul Hoffman and colleagues in policy capturing models, the social judgment models of Hammond, and Norman Anderson's functional measurement have served as important underpinnings in today's consumer research.

One stream of research that has emanated from this earlier work has resulted in the development of pragmatic tools, such as conjoint analysis. Another stream of research has focused on non-compensatory models, such as EBA, lexicographic, and conjunctive/disjunctive models. What does model robustness have to do with the topic of multiattribute decision making?

In 1974 a now-classic paper by Dawes and Corrigan appeared. Their topic was as central then as it is now—namely, what is the role of linear models in decision making? For example, the problem context could entail predicting a graduate student's first-year grade point average, given knowledge of her scores on various aptitude tests, undergraduate record exam scores, peer ratings, years of work experience, and so on.

Dawes and Corrigan reported that a large number of empirical studies showed that simple linear, additive models performed well, typically better than the decision maker herself. In general, Dawes and Corrigan found that linear models predicted well when:

1. Part-worths are conditionally monotonic with changes in each attribute's levels. Hence, once a suitable ordering of the attribute's levels is found, the ranking of part-worths with changes in the levels of the attribute does not depend upon the levels that other attributes assume.
2. Errors in the measurement of the attribute levels themselves tend to linearize functions that may be originally highly nonlinear.
3. Relative weights in the model are not affected by increases in the general error term (as is the case in multiple regression).

Later, a fourth condition was added—that the predictor variables are positively correlated, on average (Green and Devita 1975).

Many judgmental and preference tasks approximate at least the first three conditions. If so, Dawes and Corrigan found that the quality of prediction (as measured by a product moment correlation) was little affected by the precision with

which the attribute importance weights were measured. Even equal weights worked very well.

MORE RECENT RESEARCH

Much has happened in multiattribute decision making since Dawes and Corrigan's 1974 paper. For example, the part-worth, ANOVA-type model has become popular in conjoint analysis. Even here, however, the main-effects, additive version often cross-validates as well as configural models that contain interaction terms.

Decision analysts have not given up, however, in seeking conditions that would topple the humble main effects, additive compensatory model. For example, in the context of multiattribute choice, as opposed to judgment prediction, the elimination of dominated options typically produces negatively correlated attributes. It is here where predictions would be expected to be more sensitive to the attribute weights.

Experimental evidence by several researchers (e.g., Levin *et al.* 1983; Green, Helsen, and Shandler 1988; Moore and Holbrook 1989; Elrod, Louviere, and Davey 1989) indicates that models calibrated in orthogonal environments *still* appear to predict well in more realistic validation settings where dominated options have been removed. The findings of Elrod, Louviere, and Davey are particularly compelling, since their validation sets employed maximally negatively correlated options.

Another facet of the model robustness problem involves the employment of non-compensatory models, such as the lexicographic, conjunctive, EBA, and phased models. These classes of models might be expected to pose a severe challenge to compensatory model approximations. Still, Johnson, Meyer, and Ghose (1989) found that compensatory models with selected interactions did fairly well in mimicking the results of non-compensatory processing, at least in the simulated environments of their experiments.

Overall, orthogonal designs and the relatively simple part-worth models of conjoint analysis appear to do a reasonably good job of preference modeling—at least in the practical world of commerce, where time pressures and less-than-docile respondents are the order of the day. In noisy and frenetic applications, the consumer researcher may simply not have the luxury of using more delicate models and more lengthy data collection techniques.

PLURALISTIC RESEARCH

What is the moral of this little stroll down robust modeling lane? For what they may be worth, here are a few observations:

1. Statisticians are now supplying us with an increasing array of tools for battling noisy data and for isolating outlier culprits. It behooves us to learn some of these methods and apply them to our own research.
2. From the quality control engineers and the process optimization chemists, we should appreciate the value of simple (but robust) models of complex processes. Orthogonal

- arrays play a major role in both of these experimental design strategies.
3. Closer to home, paramorphic models, like the linear models of Dawes and Corrigan or the part-worth models of the conjoint analyst, appear to provide robust ways for coping with the exigencies of applied consumer judgment and choice problems.
 4. But to be able to predict reasonably well is not necessarily to understand the phenomena being predicted. There's plenty of room in consumer research for seeking a deeper comprehension of the phenomena of interest to us.

So, what does this excursion into robust models mean for consumer research generally? It seems to me that consumer researchers will have to get used to both the esoteric and pragmatic side of our natures. There are constituencies out there who want robust models that can make reasonably good predictions. And, there is also a need for more delicate and sensitive models that can explain some of the nuances of decision making and other phenomena of interest to us. Like Rich Lutz earlier stated in his ACR presidential address, let me say that I'm all for research pluralism, too. But, then again, what red-blooded consumer researcher wouldn't be?

Sometimes these two motivations—the theoretical and the pragmatic—will merge and lead to a high-impact result; that is, an idea that is *both* intellectually exciting *and* appealing to the practitioner. More often than not, proponents of each approach will go their separate ways with (let us hope) mutual respect, if not endearment.

And what about the methodologist—that back room mole who always seems to be a step or two removed from the action? Not to worry. We'll continue to ply our trade as long as there's another variance to compute, another path diagram to draw, another hypothesis to test.

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Some Observations of a Developing Field

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Being named a Fellow of the Association for Consumer Research is indeed a high honor. Receiving it is a moving and humbling experience. I feel very humble as I remember the contributions of the earlier Fellows - and those of Paul Green with whom I have the privilege of sharing the platform today.

In my career, I have had the opportunity to do many things and I have learned much from many people - students, colleagues, business executives and professional researchers. I am indebted to them. I shall be able to name a few of these people in the course of my remarks which will give special attention to the provocative behavioral scientists who ventured into marketing research some 40 years ago.

At this point, though, I would like to insert a personal note by acknowledging the all-important support of my family - my wife, Susan, and my daughters, Amy and Jane. Needless to say, they, too, provided me with a learning experience - a very rewarding one.

My academic career has been in marketing in schools of management. As you know, their faculties are expected to teach and do research which will help organizations function and, as a result, benefit the publics the organizations serve. Marketing is particularly concerned with how well products and services and the activities associated with their distribution satisfy the wants of consumers. It was in this context that I became interested in something called "motivation research" which was attracting a great deal of attention in the mid-fifties.

At that time, thinking in marketing was heavily influenced by economics. It emphasized the objective features of products and services. Marketers were aware that emotional aspects were important but had no systematic way of determining their presence in a given situation. So while consumer wants were seen as basic to planning, knowledge of buying motives was very limited. Marketing research produced many facts which showed what had happened but typically not why.

Also at that time, developments in the behavioral sciences prompted some behavioral scientists to see promising applications of their concepts and methods to problems of buying and consumption. They promised answers to the "why" question. That intrigued me, so I proposed finding out more about what was going on. The Harvard Business School, with Ford Foundation help, supported me in what turned out to be a two-year project. It resulted in the book, *Motivation Research and Marketing Management*, published in 1957.

When I began my field study, only a few organizations were engaged in what then was referred to as "motivation research." Their orientations differed somewhat, but typically they were exploring consumer motivations by the use of relatively nonstructured, in-depth interviews, projective techniques and, in some cases, measures of personality.

The prominent pioneer research firms were Social Research, Inc., of Chicago, and the Institute for Motivational Research of Croton-on-Hudson, New York. Social Research was headed by Burleigh Gardner, an anthropologist. Its interdisciplinary staff included Sid Levy who is well known to you.

The Institute for Motivational Research was headed by Ernest Dichter, a psychologist.

There were pioneers in several advertising agencies, too. In New York, Herta Herzog, a psychologist, had become Director of Creative Research at McCann-Erickson. Peter Langhoff had an interdisciplinary group in his research department at Young & Rubicam. Benton and Bowles was receiving behavioral input from Bill Wells who then was on the Psychology Faculty at Rutgers University.

In Chicago, Stuart Henderson Britt, a psychologist, guided research at Needham, Louis, Brorby. Also in Chicago was an influential promoter of "motivation research." He was Pierre Martineau of the *Chicago Tribune* which supported several landmark motivational studies by Social Research. One reason the introduction of behavioral research into marketing was possible was the backing of certain research directors and business executives like Martineau who were willing to try something new.

Also at this time, research of interest to marketing was going on at the Bureau of Applied Social Research at Columbia University and the Survey Research Center at the University of Michigan. The Survey Research Center was conducting surveys of consumer finances and other studies which provided data important to George Katona's development of the field of psychological economics.

For more insight on "motivation research," I refer you to Sid Levy's excellent President's Column in the March, 1991, *ACR Newsletter*.

By the early 1960s, other research organizations had moved in a behavioral direction and a few universities had begun to add behaviorally trained people to their marketing faculties.

The new research significantly broadened thinking in marketing. There were efforts to gain insight into the roles and meanings of products and services in the lives of people. The concepts of culture, social class, basic needs, life style, attitudes, self-image, brand image and others entered the scene. Psychological and social factors supplemented demographics. The concepts of less-than-conscious motivation, projection and free association impacted research methodology. More research was being undertaken to get ideas as well as to test them. So there was excitement and promise for the future.

By the mid-sixties, it seemed appropriate to take stock of just how much had come from the new research. A variety of approaches had been tried which drew on both the behavioral and quantitative sciences. Most of the research was private so findings typically were not published. And the researchers had been working independently. Stanford University, with the

financial assistance of Metromedia, made it possible to bring together researchers I mentioned earlier plus other leaders in the field. They met for a three-day symposium on the Stanford campus in October, 1964. The proceedings gave rise to the book, *On Knowing the Consumer*, published in 1966.

Before coming to the symposium, the participants were asked to review their work of the past decade or so to identify what could be offered as supportable knowledge of consumer behavior. At the symposium, they examined the nature of buying decisions, influences on consumer choice, market segmentation and consumer-brand relationships. They discussed the advantages of various behavioral concepts and mathematical models.

They did not claim many supportable general propositions about consumer behavior. However, there were a number of interesting findings. And there was agreement on an essential notion: that to understand consumer behavior, we have to understand human beings in toto and call on resources of all related disciplines to do the job.

Gary Steiner of the University of Chicago summarized the discussions. I can not go into detail here on his insightful commentary. But I will tell you that he concluded by giving three propositions he was sure all would agree were true in consumer behavior. Here they are:

1. "Some do, some don't"
2. "The differences are not very large"
3. "It is not as simple as that"

Those propositions, of course, still hold today. As Steiner pointed out, they also still hold for the older behavioral sciences.

While I was examining the behavioral research, I also was studying problems of relating research and management decision making. So I spent time not only with researchers but also with some of their clients.

My interest in consumer information search came in the late 1960s at the University of Michigan in response to encouragement by George Katona. Studies were undertaken with his valuable counsel and the partnership of Rick Staelin. They were supported by the Educational Foundation of the American Association of Advertising Agencies. That work led into research on consumer satisfaction with Bob Westbrook who went on to contribute much more in that area.

In 1973, I accepted the opportunity to lead development of the marketing faculty at the University of Arizona. We have enjoyed exciting years of growth. It has been very satisfying to have had a hand in attracting to the faculty an exceptional group of bright, well trained people and to see them contribute through their own research. My successor as department head, Dipankar Chakravarti, deserves special mention. He is an amazing individual who can manage a department, teach and provide research counsel to colleagues while concurrently maintaining his own high level of scholarship. Looking at consumer research today, one can not help but be

impressed by the tremendous growth. It came slowly at first, then accelerated. My earlier remarks focused on work in the 1950s which had begun even earlier. Interest in the academic community followed. The first Engle, Kollat, Blackwell consumer behavior text and the early theory books by Nicosia and by Howard and Sheth appeared in the late 1960s. The early 1970s brought the first ACR conference and the *Journal of Consumer Research*. Since then, there have been major advances in the quantity, quality and scope of research in the field.

A look back over the years prompts several observations.

First, an additional word about "motivation research." For some, the term has meant simply the use of certain techniques. While techniques are important, I view the early activity more broadly as the start of a development - that of interdisciplinary research coming into marketing in a major way. The real contribution has been that of furthering conceptual development. Progress in a discipline consists of evolving conceptual schemes - something Jerry Zaltman so ably emphasized in his presidential address a few years ago. We now have richer ways of thinking about consumers, products, brands, prices and communications.

Behavioral research was introduced into marketing by persons working in the business community. Their research addressed questions of concern to managements. Managers benefitted but so did the researchers. They found that working in applied contexts and seeing findings translated into action enriched their own thinking. Interdisciplinary efforts are important but they often are difficult to implement. People of different backgrounds do not automatically mesh well. In fact, they often clash. Significant findings are more likely to result when researchers become more interested in the issues being addressed than in their own disciplinary identities and bags of tools. It often takes a problem focus to encourage new ideas and willingness to go wherever the problem seems to lead.

We have learned that benefitting from other disciplines is not simply a matter of transplanting concepts and techniques, but of creatively adapting them in ways appropriate to the behavior under study.

Fortunately, the earlier thinking in terms of a dichotomy of behavioral vs. quantitative has largely disappeared with recognition that both are needed, often in combination. The training requirements for significant research have multiplied as scholarship in our field has evolved. Doctoral programs of today bear only faint resemblance to those of not very many years ago.

New thinking is not popular. It will be resisted because it typically threatens vested interests - either intellectual or financial or both. The early "motivation researchers" faced intense hostility, especially from survey firms whose clients had begun buying motivational studies. Hostility may be too strong a word for the receptions given the first behaviorists to join marketing faculties but it is safe to say that some of the newcomers were kept at a safe distance by their established colleagues. Fortunately,

times have changed. One of the more important contributions of the "motivation researchers" was their demonstration of the value of exploratory research. I refer to research which, at the outset, does not pretend to know what questions are worth asking - or, at least, not all of them. Instead, qualitative interviews can allow consumers to identify what is important to them and say how they feel about it. Such exploration can be valuable prior to drafting a questionnaire or deciding on research design, although it is too often omitted.

My last observation is the most important. It is that research efforts have not always been well directed. My biggest complaint over many years of reviewing manuscripts has been that many of them left me wondering why the research was undertaken in the first place. I am well aware of the strong, if not unreasonable, pressure for publication. Unfortunately, it often has promoted the expedient rather than efforts to make a difference. But I do not think it need do so.

You have heard pleas for greater relevance before. Yet I am adding another. Research on issues that really matter can result from different starting points. One is to identify an ongoing stream of inquiry which needs more work. Implications of future findings may not be clear but there must be some reason to believe that they will emerge and be important to someone.

Relevant research also can result from addressing issues of concern to managements of organizations. I refer to basic research which, in turn, will lead to better management and public policy decisions and, as a consequence, improve consumer welfare. For guidance to important streams of research, I cite two excellent references: the Quadrennial Review of Consumer Psychology by Joel Cohen and Dipankar Chakravarti published in 1990 and the 1991 *Handbook of Consumer Behavior*, edited by Tom Robertson and Hal Kassirjian. It is apparent from the coverage and depth of thought of these works that many scholars devoted much time to them and they deserve our thanks.

Another important source of guidance is the Marketing Science Institute's periodic listing of *Research Priorities*. MSI has contributed much to our field by stimulating and supporting research that advances basic knowledge needed for developing important practical applications.

The field of consumer behavior still is young and growing. It has produced many findings that we may tentatively accept as "knowledge." In addition, it has kept many faculty members employed. Hopefully, the results also are making life a little better for people in their role as consumers.

I have enjoyed being a small part of the consumer behavior scene. I thank you for the high recognition you have given me today.

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Consumer Processing of Social Ideas Advertising: A Conceptual Model

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ABSTRACT

A process-oriented approach is used to understand consumer reactions to social ideas advertising. Differences between social ideas and conventional products are discussed from a consumer's perspective. A model is developed to understand how these differences affect consumers' attention, cognition and affect upon exposure to social ideas advertising. Marketing implications and directions for further research are presented.

INTRODUCTION

Weibe (1952) asked: Why can't you sell brotherhood like soap? In this paper, we address this question by developing a conceptual model of consumer processing of social ideas advertising based on differences between social ideas and conventional products. Social marketing is defined as the "design, implementation, and control of programs seeking to increase the acceptability of a social idea in a target group" (Kotler and Armstrong 1989). The field of social marketing is thus a type of non-profit marketing that includes public health campaigns (e.g., those to reduce smoking, alcoholism, drug abuse, overeating); environmental campaigns (e.g., wilderness protection, recycling) and other campaigns (e.g., human rights, social equality) - (Kotler and Zaltman, 1971). Despite the phenomenal growth in social ideas advertising, very little is known about how consumers process these advertisements in comparison to the advertisements for conventional products.

This research takes a process-oriented approach to understanding consumer reactions to social ideas advertising. First, social ideas are compared to conventional products to understand how they differ from a consumer's perspective and what challenges are involved for marketers. Then, a model is developed to understand how these differences affect consumers' attention, cognition and affect upon exposure to social issues advertising. Implications of these relationships for marketing social ideas are discussed, and directions for future research are identified.

SOCIAL IDEAS VERSUS CONVENTIONAL PRODUCTS: A CONSUMER'S PERSPECTIVE

The term "social ideas" refers to social issues and social causes. According to Fine (1981):

"... issues are controversial; causes are generally not. One takes a position on an issue, but simply adopts a cause, such as joining a movement. Abortion and gun control are issues; the prevention of child abuse and forest fires are causes."

A list of social ideas as developed by Fine (1981) is given in Table-1. In some cases, organizations are listed rather than the associated causes, (e.g., United Way rather than volunteerism or nongovernment social service,) to maintain consistency with common usage. Social ideas are similar to products in that both involve consumption and need satisfaction. For social ideas, consumption involves taking a position on a social issue or adoption of a social cause and need fulfillment involves resolution of a social problem. As suggested by these similarities, product marketing and social idea marketing share a common underlying philosophy. Differences between social ideas and conventional products, however, necessitate adjustments in marketing actions. For example, although motivation to process advertising messages affects attention to both conventional product and social idea advertising, sources of motivation may differ in the two cases. An understanding of these and other differences could help marketers design more effective communications for social ideas.

There exists some -- although limited -- research investigating the differences between social ideas marketing and conventional products marketing. Brady (1984) points out that in the nonprofit sector (including social idea marketing) product offerings are vaguely defined and lack competition. Hupfer and Gardner (1971) investigated individuals' involvement with tangibles and issues. Their findings indicate that involvement with issues was higher than involvement with tangible products.

Rothschild (1979), however, suggests that involvement with social ideas follows a bi-modal distribution across ideas, with some having low involvement (e.g., the introduction of a \$2 bill) and others high involvement (e.g., drunk driving). In contrast, involvement with conventional products may be distributed over the middle of the continuum. In addition, involvement with social ideas may be bi-modally distributed across individuals - i.e., some people may have low involvement with almost all social ideas while others have high involvement. Fine (1981) compared the characteristics of individuals involved with social products (referred as "idealists") with those of individuals involved with ordinary goods (referred as "materialists"). His findings indicate that idealists tend to be older, married, females and members of racial minorities. Idealists were also less likely to own rather than rent their homes and spent less time watching television and on their jobs. No significant differences were found between the two groups on socioeconomic factors such as income and education.

TABLE-1
Some Current Ideas and Social Issues

55-mph speed limit	Foster parenthood	Pollution control
200-mile fishing limits	Franchising Fraternal Org.	Population control
911 emergency number	Free enterprise	Prayer in schools
Abortion rights	Freedom of the press	Prison reform
Affirmative Action	Fund raising	Product safety
Alcoholism control	Gay rights	Productivity in industry
Banking innovation	Gun control	Recycling wastes
Birth defects	Handicapped, employ the	Redlining
Blood donation	HMO	Reforestation
Blue laws	Health, value of	Religion
Buy American goods	Legalized gambling	Safety
Cancer research	Literacy	Save Chrysler
Care packages	Litter prevention	Save the Whales
Consumer cooperatives	Mainstreaming	Scouting
Car pooling	Manpower programs	Seat belt use
Child abuse	March of Dimes	Shoplifting control
Child adoption	Marriage	Smokending
Capital punishment	Mass transportation	Social security
Crime prevention	Mental health	Social welfare
Credit purchasing	Metric system	Solar energy
Divorce	Military recruiting	Space program
Draft registration	Minimum wage	Subsidies, government
Drilling, offshore	Motorcycle helmet	Suicide hot line
Drinking age	Museums	Tax reform
Drug abuse control	Nature conservation	Tax shelters
Drunk driving	Nuclear energy	Tourism
Education, continuing	Nudism	Two-dollar bill
Energy conservation	Nutrition	UNICEF
Equal Rights Amendment	Obesity prevention	Union label, buy
Euthanasia	One dollar coin	United Way
Exporting	Outdoor living	Urban planning
Fair housing	Peace	VD hot line
Family planning	Peace Corps	Vegetarianism
Fashion trend	Pet care	Veterans' rights
Fire prevention	Physical fitness	Vivisection
Fluoridation	Police, support of	Voter registration
Foreign aid	Politics	Wife abuse prevention
Forest fire prevention	Poetry	Women's rights

SOURCE: Fine, Seymour H. (1981), *The Marketing of Ideas and Social Issues*, New York, NY: Praeger, pp. 13-14.

DIFFERENCES BETWEEN SOCIAL IDEAS AND CONVENTIONAL PRODUCTS: MARKETING IMPLICATIONS

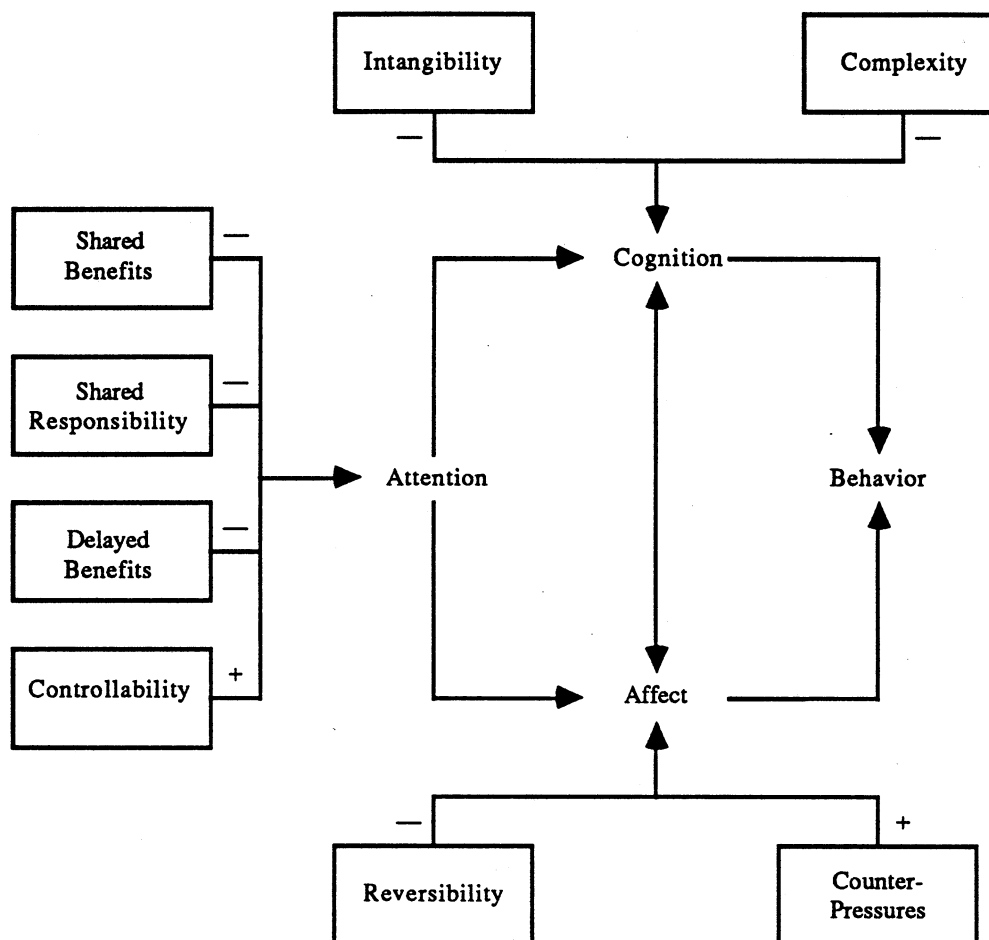
Based on the research discussed above and a general analysis of the nature of social ideas, we developed the model depicted in Figure-1. First we will discuss eight dimensions on which social ideas can be distinguished from conventional products.

Then the implications of these differences for attention, cognition and affect will be summarized.

1. Shared Benefits:

Benefits resulting from consumption of an idea typically accrue to society rather than to individuals per se (The term "individual" is used here to include such units as households and organizations.) (Fine, 1981, p. 148). These benefits are thus "Shared Benefits." Some health-oriented social action campaigns like "Quit Smoking" may benefit targeted

FIGURE-1
A Conceptual Model of Consumer Processing of Social Ideas Advertising



individuals more than other people and thus social ideas may vary in their relative emphasis on personal versus social benefits. However, any social campaign always has the basic objective of benefiting society and thus involves shared benefits.

Compared to this, consumption of most conventional products primarily benefits individual consumers. We thus propose:

Proposition 1: Consumers' perceptions of personal (in comparison to social) benefits would be lower for social ideas than for conventional products.

2. Shared Responsibilities:

Similarly, consumers view social causes and issues as concerns to be jointly shared by the entire society. In comparison, decisions concerning consumption of traditional products are viewed as personal responsibilities. There are instances of joint decision making, e.g., house buying, automobile purchase, etc. where multiple members of a household

may be involved but the personal element of responsibility is dominant in conventional products. Thus:

Proposition 2: Consumers' perceptions of personal (in comparison to social) responsibility would be lower for social ideas than for conventional products.

3. Delayed Benefits:

The adoption of a social idea may offer immediate intrinsic satisfaction to the adopter in terms of belonging to a cause to affect a societal or environmental change. But, the impact of such actions on society or the environment often cannot be seen immediately (Fine, 1981, p. 148). For example, the results of a campaign to preserve a rare species cannot be known for years to come. In contrast, most conventional products offer relatively immediate gratification.

Proposition 3: Consumers' perceptions of the time within which benefits of consumption will be realized would be longer for social ideas than for conventional products.

4. Controllability:

Consumers have more control over the consequences of their product purchases than the consequences of espousing a social idea or taking a social action (Fine, 1981, p. 148). For product purchases, the decision making unit includes the purchaser and the user. For social ideas, these roles are undertaken by very distinct, often very different, individuals. For example, consumers who buy food are reasonably sure that the food will be eaten by themselves or their families. In contrast, those who donate organs have no control over who will use their organs and whether a life will be saved.

Proposition 4: Consumers' perceptions of their control over the usage and consequences of consumption would be lower for social ideas than for conventional products.

5. Intangibility:

Services are, in general, less tangible than physical products (Shostack, 1977). For-profit services often involve services linked to tangible objects - e.g., restaurants serve food, airlines fly airplanes. In contrast, not-for-profit services, including social ideas, are less frequently associated with tangible objects. Thus, within services, not-for-profit services can be construed as more intangible than services for profit. To quote Assael (1990) who compared for-profit and not-for-profit services: "The benefits of air travel, telecommunications or bank services, are easier to convey than the benefits of religion, culture or knowledge." Thus

Proposition 5: Consumers' perceptions of the tangibility of social ideas would be lower than that of conventional products.

6. Complexity:

Not only are social ideas more intangible than conventional products, they are more complex too (Fine, 1981, p. 149). The term complexity is used here to refer to the multiplicity of relevant dimensions. First, consumers' own involvement may be higher (Hupfer and Gardner 1971; Rothschild 1979). Second, reference group influence may be more important and complex than it is for conventional products. Third, because social ideas may lead to social change, they have consequences in many different arenas. All these forces make social ideas more complex to comprehend and adopt.

Proposition 6: Consumers' perceptions of message complexity would be

higher for social ideas than for conventional products.

7. Reversibility:

In adopting a social idea, the commitment one makes has more long term implications than that for a conventional product. If a consumer does not like the article of clothing he or she has bought, it can easily be returned at the store. The same may not be possible for a social idea (Fine, 1981, p. 149). One cannot undo the support one has already given; one cannot get back donation dollars.

Proposition 7: Consumers' perceptions of the reversibility of a consumption decision will be lower for social ideas than for conventional products.

8. Counter-Pressures:

Consumers considering social ideas, especially social issues, are often faced with opposite pressures from different reference groups (Fine, 1981, p. 149). For example, a campaign on Drug Abuse Control points to the negative consequences of drug usage while peer pressure suggests that drug usage will provide wonderful experiences. This kind of counter-pressure will be far more dominant for controversial social issues than for conventional products.

Proposition 8: Consumers will experience more intense counter-pressures (opposing viewpoints) in decisions about social idea than in decisions about conventional products.

CONSUMER RESPONSES TO SOCIAL IDEAS ADVERTISING:

Attention to Content of Social Ideas Advertising:

As indicated in the model, the first four differences, i.e., shared benefits, shared responsibilities, delayed benefits and controllability would affect consumer attention to the content of social ideas advertising such that attention would be:

- 9a) negatively related to consumers' perceptions of the extent of benefits sharing.
- 9b) negatively related to consumers' perceptions of the extent of responsibilities sharing.
- 9c) negatively related to consumers' perceptions of the extent of delay in realizing benefits.
- 9d) positively related to consumers' perceptions of the extent of controllability.

The rationale for and implications of these are discussed next.

The effect of benefits sharing are related to consumers' reaction of "Why do it?" or "What's in it for me?". To overcome this, social idea advertising has to convey that what is beneficial to society is eventually beneficial to the individual. To convey this, the society-individual link should be emphasized. One example is the campaign of the United States Space Foundation - "Space Benefits - Find Out What's In It For You." This series of public service advertisements uses spokespersons who are polar opposites in some way (e.g., personal or political viewpoints, dress/lifestyle). These spokespersons state that all of us can benefit from the spin-offs of space research. The ads illustrate how technological accomplishments directly benefit Americans.

The effects of responsibility sharing are related to the reaction "Somebody else will do it" or "If I do not participate, it won't matter." Precisely the opposite message must be conveyed to overcome these reactions; social idea advertising must say, "You can make the difference." Once again, the link between individuals and society should be emphasized. One campaign that fosters a sense of "You Can Make the Difference" is the campaign of the National Association of State Foresters and the Forest Service, U.S. Department of Agriculture - "Only You Can Prevent Forest Fires." It is estimated that over \$420 billion in natural resources was saved by this program since the launch of the campaign in 1942. (An additional reason for the success of this campaign could be the use of Smokey Bear, a communication symbol with a recognition rate of 99%.)

The delay in realizing the benefits of adopting social ideas introduces uncertainty and skepticism. It may also make individuals procrastinate on social action. To overcome this, social idea advertising should offer immediate rewards. A campaign that capitalizes on the fact that the target audiences are already aware of the problem (and therefore would see more imminent benefits and would be more receptive to the idea) is Internal Revenue Services Campaign "File Now. File Early." This campaign is directed at over 100 million taxpayers and has the triple objectives of motivating taxpayers to file early, increasing public awareness of assistance programs and recruiting volunteers to help needy individuals with tax preparation. Almost everybody can relate to the immediate benefits of this social idea.

The fourth factor affecting attention - e.g., controllability - taps into individuals' desires to see and control the outcomes of their decisions. Since the action being sought is at the societal level, this control gets lost. Social idea advertising needs to restore this control to the individual. An example of social idea advertising which assures individuals that they have control is the "Reach for the Power. Teach." campaign of Recruiting New Teachers, Inc. This campaign, showing a teacher interacting with students in a classroom situation, was highly successful. In its first year, more than 184,000 individuals from 50

states responded, thus providing a large pool of potential teachers.

Cognitive Processing of Social Ideas Advertising:

Attention to social ideas advertising is expected to be negatively related to perceptions of extent of benefit sharing, responsibility sharing and delay in realizing benefits and positively related to perceptions of extent of controllability. This attention in turn is likely to affect consumers' cognitive processing of social ideas advertising such that comprehension of message content would be positively related with the attention.

In addition, as depicted in Figure-1, intangibility and complexity of social ideas would also directly affect consumers' comprehension of social ideas advertising. "Comprehension" is used here to refer to consumers' understanding of message content in the way intended by the advertiser. We propose that comprehension of social ideas advertising would be:

Proposition:

- 10a) negatively related to consumers' perceptions of the extent of intangibility.
- 10b) negatively related to consumers' perceptions of the extent of complexity.

In discussing the intangibility of ideas, Fine (1981) quotes Rogers and Shoemaker's (1971) report on rejection of the idea of boiling water in a Peruvian village:

Mrs. C. does not understand germ theory, in spite of Nelida's repeated explanations. How, she argues, can microbes survive in water which would drown people? "Are they fish? If germs are so small that they can not be seen or felt, how can they hurt a grown person? There are enough real threats in the world to worry about - poverty, hunger - without bothering with tiny animals one can not see, hear, touch or smell (p. 4).

The effect of intangibility of an idea is basically captured in one's inability to comprehend it using one's senses. A social idea marketer's job thus translates into the challenge of making an intangible more tangible. When the social idea is an "experience," this can be done by depicting the products used in gaining that experience. For example, the United States Army's recruiting efforts make extensive use of military equipment (e.g. planes, tanks) in their advertising directed at potential recruits. However, when the social idea is a desired action on part of the target audience, the task becomes more challenging. An example is the efforts of the American Red Cross to promote participation in CPR classes. Their campaign "If only they came with instructions" shows a baby holding a card with the following message, "IMPORTANT: Please hug me, feed me, keep me warm and PLEASE learn American

Red Cross Infant and Child CPR." The bold headline of the ad says "If only they came with instructions." Written in small print is the fear appeal-based message "Every year thousands of babies die of choking, suffocating or breathing emergencies. Don't let yours be one of them." The picture of a beautiful, smiling baby combined with the strong fear appeal message make the rewards of learning CPR very obvious and conveys the tangible results of this action.

The complexity of some social ideas may create information overload (Jacoby, Speller and Kohn 1974;) and affect consumers' ability to process the relevant information. Advertising for social ideas should be kept simple and consider target consumer's information processing capacity.

Affective Responses to Social Ideas Advertising:

In addition to its effect on consumers' cognitions (e.g., message comprehension), attention to social ideas advertising affects consumers' affective responses (e.g., feelings). Two aspects related to consumers' feelings need to be discussed - the valence or the pleasantness/unpleasantness of feelings and the intensity of feelings. Feelings are likely to be more intense when consumers devote more attention to the message than when they devote less attention. The second aspect concerns the valence of the feelings. As indicated in the model in Figure-1, lower reversibility of social ideas consumption decision and higher counter-pressures will directly affect affective responses to social ideas messages such that feelings would be:

Proposition:

- 11a) more pleasant when consumers' perceive greater reversibility.
- 11b) less pleasant when consumers' experience greater counter pressures.

The reversibility effect poses real challenges for the social idea marketer. The very objective of social idea advertising is to obtain commitment for a cause and issue and often these commitments are sought as a long-term action rather than a short-term one. This poses a threat to the consumer who sees himself or herself being "tied". This threat is associated with unpleasant feelings. The marketer of a social idea cannot really say that "they'll offer a refund" as in use of a conventional product. However, they can decrease the unpleasant feelings association with the commitment by emphasizing the high benefit to costs ratio: - i.e., emphasizing that benefits are far more and costs are nothing in comparison (without undermining the importance of the commitment). An example would be a television solicitation for children in poor countries which says that you can make the difference in the life of a child by "committing only 39 cents a day." These ads then go on to describe how the sponsored child will regularly write to you and how you will get pictures showing the difference your contribution has made.

The counter-pressures to social idea advertising arise from opposite and preexisting viewpoints. Conflicts resulting from such counter-pressures are associated with unpleasant feelings. To help consumers cope with such feelings, an ad should acknowledge these counterpressures while establishing the viewpoint advocated. The field of social idea advertising deals mostly with topics with which consumers are already familiar. Research suggests that when consumer awareness and knowledge are high, two-sided messages are more effective than one-sided messages (Faison 1961). Two campaigns of the American Cancer Society (ACS) demonstrate this point. ACS identified two high risk groups: leisure tanners and outdoor workers. The campaigns directed at these two target groups had a common theme but different executions. The common theme was "Cover up or face the consequences." The ad directed at leisure tanners showed a skeleton with a pair of sunglasses lying on a chaise lounge and carried the heading "Skin Cancer Can Ruin a Beautiful Tan." Thus this ad very indirectly acknowledges that "covering up" (the social idea in the interest of public health) prevents one from getting a tan but saves you from skin cancer. This makes viewers think about the choice they want to make. Similarly, the ad aimed at outdoor workers shows a brawny construction worker without a shirt. The ad headline says "Staying Cool on the Job Could Cost You Your Life." This time the social idea marketer is acknowledging that covering up may make you feel warmer, but it saves your life. Once again the target has to make a choice.

Consumer Behavior in Response to Social Ideas Advertising:

As the model in Figure-1 depicts, consumer behavior in response to social ideas advertising results from cognitive and affective processing of such messages. Further, the cognitive and affective responses are construed as mutually reinforcing rather than independent processes. The notion of behavior being a function of cognitive and affective responses is well supported by research related to the Theory of Reasoned Action (Fishbein and Ajzen 1975, 1981) which links the attitudinal or cognitive component and subjective norm or affective component to behavior. For example, research by McArdle (1972) suggests that behavioral intentions of alcoholics to sign-up for treatment in a Veterans' Hospital program were jointly predicted by their attitudes towards signing up for the program as well as their motivation to comply with referents (e.g., spouses, parents).

The area of cognition-affect relationships and their directionality has captured the attention of researchers in the area of consumer satisfaction/dissatisfaction. Several studies have established that cognitive responses such as attributions for product failure affect emotions or affective responses (Folkes 1984; Oliver 1989; Weiner 1985; Weiner, Russell and Lerman 1978, 1979). The reverse linkage, i.e., feelings affecting cognitions has been supported in the area of memory research (Bower 1981; Clark and Isen 1982; Isen and Daubman 1984). A cycle-recycle pattern of emotion-attribution-emotion was found in

two studies conducted by Stephan and Gollwitzer (1981). More recently, Manrai and Gardner (1991) suggest that emotional context of product failure affects attributions.

Taken together, this suggests that consumers' cognitive and affective responses to social ideas advertising affects behavior directly and that these responses are mutually reinforcing.

CONTRIBUTION AND FUTURE RESEARCH:

This paper makes two important contributions to the area of social ideas advertising research.

- 1) Eight basic dimensions were identified that differentiate social ideas advertising from conventional products advertising. These differences enable us to understand the true nature of social ideas advertising and the challenges involved.
- 2) A model is developed relating the eight differences to three aspects of processing upon exposure to social ideas messages: attention, comprehension and affect.

Future research can be directed in several areas. First, the differences between the social ideas advertising and conventional advertising require empirical investigation. Second, the propositions relating the eight differences to three aspects of processing also should be tested empirically. Third, other possible linkages should be explored. For example, the four differences that affect attention, i.e., shared benefits, shared responsibilities, delayed benefits and controllability may also influence affective responses directly.

The model presented here is very basic; future research could be directed at exploring more complex relationships and interactions. There appears to be wide scope for future research in this area. Such research efforts should enhance our understanding of this societally important topic.

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Toward Articulating Theories, Triangulating Concepts, and Disambiguating Interpretations: The Role of Converging Operations in Consumer Memory and Judgment

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ABSTRACT

A variety of general methodologies for the study of consumer memory and judgment are outlined. Although each of them is useful in isolation, it is argued that researchers should strive to combine them, and collect converging evidence from widely divergent paradigms, whenever possible.

I have had a passing familiarity with the study of consumer behavior over the past decade and, more than anything else, two things have become apparent. One is that information processing theory has clearly become the dominant theoretical -- or metatheoretical -- approach to the field. Everything from introductory textbooks in consumer behavior to the pages of our most elite journals are filled with its fruits.

There are, of course, very good reasons for this. One is that information processing theory has been enormously successful in revolutionizing basic experimental psychology. A related but still distinct reason is that it has been nearly as successful in revolutionizing the study of consumer behavior as well. Without disparaging the impact of other traditions or viewpoints, the past decade has provided a virtual explosion of new scientific questions and, in many cases, quite subtle and sophisticated answers. The fact that this explosion of new knowledge has coincided with the field's adoption of information processing theory as the major guiding paradigm is no accident.

The second thing that has become apparent to me over the past decade, and this is in no way inconsistent with the first, is that we are still a very immature field in our approach. As I'm sure many of us do, I sometimes marvel at how researchers can tackle such difficult problems in such an elegant and sophisticated way. But then there are other times in which I become distraught over how many loose ends remain untied.

The field of consumer behavior is following a natural evolutionary course, one that has mirrored quite closely that of cognitive psychology. However, since cognitive psychologists have been active much longer, and have progressed much further, it is useful to examine some of the changes in orientation that have been responsible for their progress. In this way, we can avoid some of the mistakes they made and capitalize on some of their more productive achievements.

Anyone who reads both the cognitive psychology and consumer behavior literatures will be struck, above all, by the following: while researchers in consumer behavior typically use one experiment to test five or six hypotheses, cognitive psychologists typically use five or six experiments to test one hypothesis. This difference follows from a very basic orientation concerning how and when scientific inferences can be drawn from observed empirical data.

This point is worth elaborating in a slightly different way. Researchers in consumer behavior typically use a single experimental paradigm, and then draw inferences about several different cognitive processes. This is useful, and even necessary, in the early stages of investigation because meaningful theories require a data base that is both rich and descriptive. Cognitive psychologists working with virtually every psychological process traveled down this same path. Eventually, however, cognitive psychologists discovered that this is a very dangerous strategy in the long run because not nearly enough constraints are imposed on the theory. If one continues to follow this strategy, the theories will remain unspecified and unwieldy.

Having learned their lesson, painfully but well, cognitive psychologists now follow exactly the opposite strategy; they use many different paradigms to provide evidence that converges upon a single type of process or memory representation. As consumer behavior develops into a mature field, we will need to move in the direction of gaining evidence about a single memory representation from many different paradigms and dependent measures.

There is every reason to believe that those measures that have proved to be most useful in cognitive psychology will prove to be equally useful in consumer behavior. In the rest of this paper, I will try to outline in general terms what these measures are and when they can be used most easily. The point to keep in mind, however, is that they can and should be used in conjunction with each other whenever possible.

Free Recall Measures

A common type of experiment in consumer behavior is one in which consumers receive information about an object (e.g., a brand or category) with instructions to use it for a particular purpose (e.g., to learn the information or form an evaluative judgment). They are then asked at some later time to recall as much of the information as possible. A researcher might then compute any of six different indices: (1) the total *amount* of information recalled, (2) the *type* of information that tends to be recalled, (3) the *order* in which the various items are recalled, (4) the number of *intrusions* that are reported, (5) the *latencies* associated with the recall of each item type, and (6) the *implications* of the recalled information for a particular type of judgment or decision.

These indices are typically used to draw conclusions about three separate questions: (1) the extent to which the information was initially learned, (2) the content and organization of the mental representation that is formed, and (3) the particular aspects of the information that are used as a basis for judgments or decisions. These inferences can be made

in the context of (at least) four general memory models.

Associative network models. Many models conceptualize the representation of information in memory as an associative network of concepts and relations. Concepts in such a network are represented by nodes, and associations by pathways connecting them. However, the nodes themselves are assumed to have no internal structure. Associations are usually thought to be the result of contemporaneous representations of the concepts in working memory (rehearsing two items together, thinking about the concepts in relation to each other, and so on).

Two general types of retrieval processes have been postulated. One involves a serial directed search of the network. Once the concept represented by a particular node is activated, other concepts are retrieved by progressing from node to node along the pathways that have been established (see e.g., Srull, Lichtenstein, & Rothbart, 1984; Srull & Wyer, 1989). A second type of model assumes a parallel search of the network. This is best exemplified by various spreading activation formulations (see e.g., Anderson, 1976).

Retrieval models. It should be clear that associative network models tend to put all of the conceptual weight on the relations between concepts, and they deemphasize the internal structure of new episodes that are encoded into memory. Retrieval models take nearly the opposite approach.

As a general class, retrieval models make minimal assumptions about how a newly encoded episode is "organized" and represented in relation to other things that are known (see e.g., Ratcliff, 1978). That is, they deemphasize any relations that may exist between concepts. They do, however, make elaborate assumptions about the *internal* structure of any encoded event. In most cases, a vector or matrix format is used to represent the structure of new events that are encoded into memory. Each event is broken up into a set of elementary features (which include self-generated associations) and the "values" of such features are the components of the vector or matrix that is used to represent the event. Each vector or matrix is stored independently of all the others.

A common element of these models is that a retrieval cue (either presented by the experimenter or self-generated) can also be decomposed into more elementary features and represented in vector or matrix format. The effectiveness of any cue will be a function of the "similarity" of its own vector (matrix) with the vector (matrix) of the to-be-recalled event. This provides one explanation for why a cue is effective only if some or all of its features were thought about at the time of encoding (Tulving & Thomson, 1973).

Reconstructive models. A third type of model is particularly powerful in conceptualizing the dynamics that result in the intrusion of general world knowledge into the recall of specific information. There are two general versions of this model.

One postulates the existence of previously learned knowledge structures (scripts, schemata, etc.) that function as configural units and are used to interpret raw information whose features can be

instantiated in terms of them. For example, one may have a particular schema for health food. When specific information is received about a particular health food, this information is not directly stored. Rather, only a "pointer" to the schema is retained, along with equivalence rules for translating specific features of the new information into prototypic ones and back again. This representation is sufficient to permit the new information to be reconstructed later, even though its details are not uniquely stored. However, because of this same process, one would expect to find many intrusions of unspecified features in consumer's recall protocols as well.

A second general type of reconstructive model also assumes that new information is interpreted with reference to a pre-existing knowledge structure. However, it assumes that once the information is organized and encoded in terms of this prior knowledge, it is stored in memory as a conceptual unit rather than as simply a pointer to the prototype used to interpret it (see e.g., Wyer & Srull, 1986).

Amount-of-processing models. A fourth conceptualization places special emphasis on the amount of cognitive activity involved in processing information at the time it is encoded (see e.g., Burke & Srull, 1988). In general, these models assume that more extensively processed information becomes more accessible in memory and therefore is more likely to be recalled. This may be true because thinking more extensively about information leads it to be more elaboratively encoded in terms of previously formed concepts, thereby making these concepts more effective retrieval cues (Jacoby & Craik, 1979). Another possibility is that more extensively processed information becomes more strongly associated with contextual (situational) cues available at the time it is received, and therefore is more likely to be retrieved in any later situation in which those same cues are present (Tulving, 1983).

Cued Recall Measures

One of the most significant influences on the development of an information processing framework for the study of memory and cognition was the primary consideration given to retrieval and computational processes (e.g., Lichtenstein & Srull, 1985, 1987), as well as to instances of retrieval failure (e.g., Lynch & Srull, 1982). The use of cued recall tasks has become increasingly common as more and more theoretical issues concerning retrieval have been raised (see e.g., Keller, 1987, 1991).

It is important to distinguish between cued recall as a process and as an experimental procedure. Several theorists (e.g., Battig & Bellezza, 1979; Voss 1979) have argued that much of one's recall involves the use of self-generated cues. Thus, a free recall task might involve "cued recall" in terms of the underlying processes being activated. As an experimental procedure, however, a cued recall task involves a situation in which the experimenter provides cues (at the acquisition stage, retrieval stage, or both) that may aid the subject in recalling other material.

There are two major advantages to using cued recall as an experimental procedure. First, it can often be used to detect information available in memory that less sensitive methods (e.g., free recall) are unable to detect. The second advantage of cued recall is more subtle but even more important. Many contemporary theorists (see e.g., Raaijmakers & Shiffrin, 1980, 1981) postulate that all information encoded into long-term memory is potentially available from that point on, and "forgetting" is due to the inability to retrieve a given piece of information in a particular context. By experimentally varying the situational context, and therefore the nature of the cues available to the subject, one can examine under what conditions people will and will not be able to retrieve given information.

Recognition Measures

Measures of recognition memory like the free recall and cued recall measures discussed earlier, are often used as an index of learning and retention. However, the conclusions one draws from these measures are probably even more dependent on the theoretical assumptions one makes about the processes that underlie the responses being measured.

In a recognition paradigm, subjects who have previously been exposed to a set of stimulus items are then presented with each of several test items and asked to decide whether each item was among the ones they had seen earlier. Some of the test items were actually presented before, and others ("distractors") were not. Three indices are usually considered: (1) the probability of correctly identifying a stimulus item as having been presented (the *hit* rate), (2) the probability of stating that a distractor had been presented when it had not (the *false alarm* rate), and (3) the time required to make these judgments. I will focus here only on the first two measures (for a discussion of how response time can provide additional information in a recognition memory paradigm, see Srull, 1984).

Quite different theories exist concerning the processes that underlie recognition responses. One view is that free recall, cued recall, and recognition all lie along a single continuum. That is, they are not qualitatively different from each other (Watkins, 1979). While in a free recall paradigm there is only one cue and it is very general ("recall everything you can from the list"), in a cued recall paradigm there are many cues and they are necessarily more specific. According to this model, a recognition paradigm is very similar. In recognition, many of the cues that are provided to subjects to aid recall are duplicates of the original items (these are called *copy cues*). However, the underlying retrieval process is no different than in cued recall, or free recall for that matter. According to this model, the critical determinant of recognition responses (like all others) is the association of the stimulus items stored in memory with the retrieval cues available at the time of recognition. In other words, recognition involves a retrieval process that is no different from that in free recall.

An alternative view is proposed by Gillund and Shiffrin (1984). They postulate that the primary criterion for a recognition response to an item is the

item's subjective familiarity. That is, a test item will be responded to affirmatively if it is experienced as "familiar" in the situational and informational context in which the item is presented. According to this model, search and retrieval processes, which play the dominant role in free recall, are simply bypassed when recognition memory measures are used.

A third, less well formalized conceptualization incorporates features of both of the above models. According to this view, a subject who receives a recognition test item will first use its features as cues to probe long-term memory for an item that has these same features. If the search is successful, a "yes" response will be given. However, if the subject does not find an item, he or she will have to "guess" whether the test item was included in the original list. This guessing process will be based on some index of subjective familiarity, which is assumed to be a function of the similarity of the item in question to other items the subject does remember as having been presented.

The conclusions drawn from a given set of recognition data will often depend on which of these general sets of assumptions is implicitly made. Several detailed examples of the interpretive controversies that can result are provided by Wyer and Srull (1988).

True - False Verification Measures

It seems reasonable to assume that the time required to respond to a stimulus is some function of the time required to perform each of the component stages that underlie the generation of this response. Moreover, if one has a precise theory of the stages of processing that underlie judgments in a particular situation, and if one postulates factors that independently affect the different stages of processing, these factors should have independent and additive effects on overall response time (Sternberg, 1969, 1975). If the effects are not additive, it implies that either: (1) the experimental factors do not affect the stages of processing that one assumes, or (2) the stages themselves are nonindependent.

There is often an inherent ambiguity in interpreting response-time data. This is particularly true when the responses being made require assumptions about both: (1) the structure and organization of the cognitive material on which the response is based, and (2) the nature of the retrieval and use of this material. As Anderson (1976) and others have pointed out, it is often impossible to localize the logical source of response-time differences. In other words, a given pattern of response times can be accounted for equally well by: (1) postulating differences in the structure and content of memory, but assuming a single search and retrieval process for accessing it, or (2) assuming a single memorial representation and postulating different search and retrieval processes. In many instances, these alternative interpretations must be evaluated in terms of their relative plausibility or parsimony rather than (simply) their consistency with the data.

These considerations make it clear that the use of verification times as a memory index is highly

contingent on the a priori assumptions one wishes to make about the process that underlies them. When one is willing to make a particular set of assumptions, however, some useful conclusions can be drawn. An elegant example is provided by Sentis and Burnstein (1979) in an investigation of subjects' tendency to organize information in memory in a manner implied by cognitive balance theory. Subjects received sets of three affective relations among persons and objects that were theoretically either balanced or imbalanced. Then they were presented with configurations of one, two, or three relations from the original materials, and asked to verify whether they were among the relations they had learned.

Sentis and Burnstein postulated that subjects would store the relations in imbalanced triads independently of one another, and thus the time required to verify a configuration would increase with the number of relations presented. However, subjects were expected to organize the relations contained in balanced sets into integrated units rather than storing them as independent entities. They were therefore expected to verify a balanced configuration more quickly when all three of the relations it comprised were presented than when only a subset was presented. In short, the time required to verify the relations contained in imbalanced sets was expected to increase with the number to be verified, whereas the time required to verify the relations contained in balanced sets was expected to decrease with the number of relations presented. The results supported both hypotheses, and provide an elegant demonstration of the use of this type of methodology.

Ease of Retrieval Measures

A wide range of questions related to cognitive organization can be investigated by examining the ease with which material that is represented in memory can be accessed. The precise experimental paradigms that are used vary greatly; while some resemble yes-no verification tasks, others resemble free recall tasks, and still others fall somewhere in between. Three representative but very different examples are described below to illustrate the continuum.

One question that often occurs within the study of consumer behavior is how closely one item is associated with another (and how the strength of that association might be manipulated). For example, Fazio, Herr, and Powell (1992) examined different advertising executions that presented the same information; the only difference was that the brand name was identified very early in one case, and not until the end of the ad in the other (so-called Mystery Ads). They then presented consumers with a yes-no verification task in which they were to indicate whether a particular brand belonged to the product category designated (e.g., Crest - Toothpaste).

Fazio et al. found that the time required to make these verifications was much less when a novel brand was learned about via a Mystery Ad than in the more traditional executional style in which the brand name is presented first. This suggested that the brand-category associations were much stronger in the former than latter case. Moreover, Fazio (1990) has

shown that such verification times correlate highly with how early a brand is listed when consumers are asked to list all of the members of a given product category, providing just the type of converging evidence that one would hope to find more often.

Similar approaches can be used to determine when consumers can retrieve information directly, rather than compute it indirectly on the basis of other, relevant information that has been stored. For example, Kardes (1988) presented consumers with an advertisement in which the conclusion from an argument was stated directly or only implied. He then measured the amount of time required to determine that the conclusion was true.

Consumers who saw the conclusion directly stated could simply retrieve it from memory, and their response times were very fast. Kardes also discovered, however, that consumers who saw the conclusion only implied were equally fast to respond if they were in a high involvement situation. This indicated that these consumers drew the necessary inference at the time they acquired the information, and they too could retrieve the (in this case, inferred) conclusion directly from memory. In contrast, when consumers were in a low involvement situation, and the conclusion was omitted, the time required to respond was much longer, indicating that there was very little inferential activity at the time of acquisition.

Finally, there are many situations in which it is useful to manipulate rather than assess the ease of retrieval. For example, semantic categories that are primed often have a dramatic effect on how subsequent information is processed (for a review, see Wyer & Srull, 1989).

It also appears that the ease with which information is recalled influences the way in which its implications are used. In a very powerful study, for example, Schwarz, Bless, Strack, Klumpp, Rittenauer-Schaika, and Simons (1991) asked subjects to recall either six examples of their own assertive behavior (a very easy task) or twelve examples of their own assertive behavior (a very difficult task). Other subjects did the same with unassertive behavior.

Schwarz et al. found that subjects who recalled twelve examples of assertive behavior actually rated themselves as less assertive than subjects who recalled only six examples. In fact, ratings of assertiveness were higher after recalling twelve unassertive behaviors than twelve assertive behaviors. Based on these and other data, it appears that self-assessments only reflect the implications of recalled content when the ease of retrieval is high. Otherwise examples that are retrieved from memory are discounted.

Summary

Cognitive psychologists have developed a wide range of paradigms that can be used to study consumer memory and judgment. An overreliance on any one of them is dangerous because, as history has demonstrated, the data collected from any single paradigm do not impose enough constraints for a complete and well articulated theory. Thus, consumer researchers should strive to collect evidence from different paradigms that converge on a common set of

psychological processes. In this way, interpretations can be made less ambiguous, concepts can be triangulated, and theories can be (tentatively) fleshed out in a more bottom-up fashion. If the impressive progress that has been made in our understanding of consumer psychology is to continue, such an approach will need to be taken. There are already some signs that this is occurring, and the purpose of the present paper is to help accelerate that trend.

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Do Hispanics Constitute a Market Segment?

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ABSTRACT

Proponents seem not to have examined the implications for hispanics or marketing strategy of the notion that hispanics constitute a "market segment." A hispanic "market segment" implies that hispanics are homogeneous, and the implied recommendation that marketers should target such a segment leaves many questions unanswered, including attributes of the offering or, even, how to go about selecting such attributes, as well as the implications of such special targeting for the firm's overall marketing effort. The marketing concept states that brands are formulated on the basis of identified customer wants. Wants vary as a function of heterogeneity in the contexts in which prospects engage in a focal activity. Such contextual heterogeneity occurs among and within individuals and is not illuminated by the labels of demographic classes. Plainly, there is no basis for assuming that hispanic wants are homogeneous, that hispanics do not share the full range of human wants found among nonhispanics, or that producers may devise a simplistic strategy to appeal to hispanics.

INTRODUCTION

Judging from the recent number of journal articles and conference presentations on the topic of "marketing to hispanics," formulation of special marketing strategy for hispanic consumers would seem to be widely recommended by marketing theorists. However, a recent paper by Fennell and Saegert (1990) questions the logic of "segmentation," i.e., devising a single marketing strategy to appeal to a particular ethnic group, or indeed, to any class defined on the basis of a (relatively) enduring personal characteristic (e.g., demographic or personality trait, geographic location, or product ownership). This argument, based on Fennell's marketing model (e.g., 1982a, 1982b, 1985, 1989), takes as a point of departure the marketing concept, i.e., the notion that marketing strategy proceeds by systematically assessing the wants and desires of prospects, selecting brand attributes to address such wants and desires in a competitive context, while aiming to obtain a satisfactory return on one's investment.

FALLACIES IN THE CONCEPT OF A "HISPANIC SEGMENT"

Many factors contribute to recent interest in the notion of a "hispanic" (or other ethnic group such as blacks, orientals, etc.) segment. Unquestionably, hispanics make up a large part of the US population and contribute richly and distinctively to the character of the nation as a whole. Moreover, hispanics are recognized as minority group members who historically have been at economic and/or social

disadvantage compared to majority group members. Thus, much attention is focused on both the cultural contributions made by hispanics and other ethnic minorities, as well as the need to provide mechanisms to prevent social injustice and discrimination. However, none of these facts argues for regarding hispanics as a market segment.

Those who would regard hispanics as a market segment contribute, doubtless unwittingly, to confused thinking about both hispanics and marketing strategy. It may be helpful to reflect on the concept of market segment. In short, it is necessary to think of markets as segmented because demand is heterogeneous, and the producer's decision, i.e., in a competitive context, choosing brand attributes to appeal to at least some prospects, requires reducing the heterogeneity of varied individual contexts to a manageable number of homogeneous segments.

Regarding markets as comprising "segments" simplifies the producer's task of responding to the varied circumstances of the prospects for a product. On the *demand* side, there are individuals in a population who perform a particular activity, e.g., feed a dog, attend live theater. Having regard to such prospects for dog food brands and live theater performances, respectively, the context in which they engage in the focal activity varies across individuals, and within individuals over time, and what they value in an offering varies accordingly. On the *supply* side, looking for a return from investing his/her resources, there is a producer who wants to make offerings that at least some prospects will (repeatedly) pay for. The contexts in which prospects perform the focal activity are outside the producer's control, but the producer *has* control over the attributes of the offering. S/he hopes to choose attributes that at least some prospects will want on at least some occasions when they engage in the focal activity. Considering how to create the offering, the producer faces a wide range of options, and must choose in light of prospects' wants *and competitive offerings*. This enormously complex task is facilitated by investigating the contexts in which prospects perform their focal activity and reducing complexity on the demand side to a manageable number of roughly similar kinds of context. These are the segments of demand. When that information is combined with information on brand liking/use within segment, the resulting picture shows how the *market* is segmented. Empirically, both demand and market segments are independent of demographic classification.

For our purposes here it is obvious that a *market segment* implies within-segment *homogeneity* as regards wants. Accordingly, to suggest that hispanics, or any ethnic group, constitute a market segment implies that hispanic wants and desires are homogeneous within their ethnic group. Of course, no

one explicitly argues this and, in fact, many authors emphasize the need to distinguish among subgroups of hispanics, most frequently, for example, as a function of their country of origin (e.g., Mexico, Puerto Rico, Cuba, or other hispanic countries). Nevertheless, it is easy to see that distinguishing among such subpopulations merely extends a presumption of homogeneity to another level; that is, it presumes that Mexicans, Puerto Ricans and Cubans are homogeneous within their respective subgroups, an assumption, again, that none argues explicitly, or examines.

A related issue is the implied recommendation that a marketer should design a marketing strategy to "appeal to hispanics," i.e., the notion that it is possible to appeal to an entire ethnic group by a single marketing strategy. Let us examine this by considering formulating a brand to appeal to a given ethnic subgroup. Even searching for an example of such a brand strategy runs the risk of perpetuating ethnic stereotypes, an outcome to which advocates of "ethnic segmentation" appear oblivious. However, in the interest of illustrating the illogic of "formulating a brand for hispanics," we must conjecture a stereotypical trait. For example, a recent article has maintained that a major cosmetics firm employed a "hispanic market agency" (Brookman 1988), presumably to "target" prospective hispanic make-up buyers. Assuming some characteristic that may be pertinent to hispanic customers, for example, darker skin shade, let us imagine that the manufacturer considers producing a brand specifically formulated for this subgroup. However, the producer would undoubtedly be aware that dark skin tones are not present in all hispanic prospects, and moreover are also found among nonhispanics. Thus, identifying an ethnic group as a market segment fails to deal both with the heterogeneity of conditions within, and similarity of conditions across, ethnic groups. Finally, and perhaps most important in terms of marketing strategy, deciding to formulate a brand for dark-skinned prospects (hispanic or otherwise) leaves unaddressed prospects' heterogeneous motivations concerning the focal behavioral domain, which would be personal grooming in the present example (e.g., coping with dry/oily/blemished/sensitive skin, symbolic/aesthetic/intellectual considerations), not to speak of preferences among product forms and package sizes. As Fennell (e.g., 1990) points out, desirable attributes in brands vary, across and within individuals, as a function of enduring and transitory elements in the contexts for engaging in the focal activity. In line with the marketing concept, i.e., brands are formulated to respond to a subset of prospects' wants, the notion of a hispanic, or any other ethnic, "market segment" is an oxymoron. Similarly, the notion that it is possible to "appeal to hispanics" by formulating "the hispanic brand" or even "the hispanic strategy" does a disservice to marketing professionalism, no less than to the ethnic group that is to be thus stereotyped.

MARKET SEGMENTATION

Much of the confusion regarding hispanics as a "market segment" may follow from inappropriate

terminology widely referring to ethnic and other demographic subgroups as "market segments." In fact, market segmentation reflects variability, *within domains of human activity*, in the circumstances that result in specific human wants, (e.g., Fennell 1982b). As noted, specific human wants, i.e., at the level of individual acts and corresponding market offerings, are not reflected in demographic or other enduring personal characteristics, which cut across domains of activity. Recognizing such heterogeneity of human wants and desires *within activity domain*, producers have understood that "responding to customer wants" leads to a variety of brand formulations within a single product category. Opportunities for brand differentiation result from the varied circumstances, within a particular domain of activity, for which prospects may choose a brand to minister to their wants.

Developing a marketing strategy follows a number of steps such as those outlined elsewhere (e.g., Fennell 1982a), which it may be useful to recap here. Faced with the range of everyday human activities that include, e.g., "removing: soil from clothes, sensations of hunger, various kinds of pains, aches, and insecurities, as well as providing stimulation for the mind and pleasure for the senses" (Fennell and Saegert 1990), a producer identifies a domain that corresponds to his/her productive interest. Within that domain, the producer hopes to be able to put productive resources to good use by creating a brand that some prospects will favor relative to competitive offerings.

Fennell's model outlines categories of motivation that lay the groundwork for differentiating brand offerings and, more broadly, developing marketing strategy. These heterogeneous contexts for an activity, found across ethnic and other demographic categories, are the source of market segments, and of the attributes that segment-appropriate brands should possess. Briefly, the model describes five simple and two complex motivational classes that help marketers to identify the heterogeneous contexts in which people perform an activity. These contexts are illustrated as follows for an oral hygiene activity:

...observing an individual engaged in some activity related to oral hygiene, such as "brushing teeth," and bearing heterogeneity in mind, one may conjecture that the individual may be *escaping* from the unpleasant process of bacteria in the mouth creating bad breath, or damaging teeth, or from the ugliness of teeth discolored or stained from smoking cigarettes/drinking coffee; or *preventing* imagined criticisms from oneself/significant others on grounds that one is lazy, or careless of personal hygiene, or lacking in consideration; or *maintaining* a system that needs only routine attention; or *exploring* an interesting question related to brushing techniques; or *enjoying* the sensory experiences associated with bristle on gums, taste and tingle of dentifrice, and the sight of glistening pearly teeth; or doing any of the

preceding while trying to ignore the discomfort of water on sensitive teeth or painful gums (*conflict*); or while feeling discouraged at the unsatisfactory result that one has previously obtained from one's efforts (*frustration*). Accordingly, the qualitatively different kinds of circumstances to be found in the establishing operations of instrumental conditioning help a researcher to generate candidate personal and environmental elements that may be operative in any individual instance or on some proportion of a universe of occasions (Fennell and Saegert, 1990).

Elements such as the preceding guide the qualitative researcher in obtaining the necessary information from prospects for quantification in large scale surveys. As noted, to simplify the brand positioning decision, marketing researchers form segments of demand and, having regard to prospects' information about and reactions to competitive offerings, market segments (e.g., Fennell 1978, 1982a). The producer's positioning decision reflects a judgment concerning how productive resources can be used to best advantage by responding to some region of demand that appears to be not well served by existing offerings.

CRITIQUE: ARGUMENTS FOR THE CONCEPT OF A HISPANIC SEGMENT

Researchers who have studied hispanic consumer behavior have offered a number of justifications for doing so. Some of these include the large number of hispanics in the US, empirically found differences between hispanics and others (e.g., nonhispanics/general population), and hispanic preference for Spanish language media. As will be seen, however, none of these justifications for studying hispanics as consumers establishes a basis for regarding hispanics as a market segment.

Demographic Differences

Frequently, researchers have pointed to demographic characteristics of hispanics as the basis for developing marketing strategy (e.g., Valencia, 1989). These include, for example the large number of hispanics in the US, their comparatively high growth rate, large average family size, disproportionately low average age, etc. Also, the argument is made that even though their economic status may presently be lower than that of the population at large, hispanics' income levels are rising rapidly, thus providing them new wherewithal to purchase producer's brands. Such characteristics, in fact, do not provide a basis for developing brand strategy. Take family size, for example. Knowing that "hispanics have larger families than average" might be considered as guiding a marketer to position a brand accordingly, namely for "large hispanic families." Characteristics of such a brand might include, for example, larger package sizes of foodstuffs, or greater durability of furniture (to lessen breakage by youngsters). But "large family size" provides no information relative to other aspects of the focal activity and hence, no guidance for

choosing brand attributes in regard to the central task that the brand is to perform. For example, knowing that some hispanic prospects have large families provides no information about whether such families, *in regard to the focal activity*, are seeking to escape from current problems, prevent potential problems, maintain a stable state, avail of opportunities to explore, or to enjoy sensory pleasure. Moreover, is there any reason to believe that "large hispanic families," as regards a focal activity, are homogeneous in their motivations and different from large nonhispanic families? In other words, the motivations of prospects are still not addressed by knowing yet another demographic label. Furthermore, not all hispanics have large families, so a recommendation to regard hispanics as a market segment has now been transformed into one to regard hispanics with large families as a market segment without, however, achieving the homogeneity regarding wants that is the defining feature of market segment.

Different Brand Loyalty

A number of studies have been produced that identify particular consumer behaviors as a basis for differentiating hispanics from nonhispanics. One celebrated example is the argument that hispanics are found to be more brand loyal than the general population (e.g., Deshpande, Hoyer and Donthu 1986), although the data are mixed as to whether this is actually the case (Saegert, Hoover and Hilger 1985). According to the brand loyalty claim, to a greater degree than nonhispanics, hispanics are believed to choose the same brand in repeated purchases, and to have strong positive feelings for familiar brands. Here again, it is difficult to identify a marketing strategy that proceeds from such findings. A marketer might reasonably ask, given that hispanics are brand loyal, what characteristics are implied for brand development? The answer is plainly, none. Further research along the lines already described is needed and will reveal heterogeneous wants among hispanics. Furthermore, what strategy is recommended for gaining new customers? If a particular producer's brand is not currently favored by hispanics, the indicated strategy might simply be to refrain from making special efforts to promote that brand to hispanics. Marketers rarely choose to challenge on a competitor's strongest ground, e.g., the brand loyal customers.

Different Attribute Ratings

Another example of distinctive hispanic consumer behavior being taken as a basis for regarding hispanics as a "market segment" is presented by O'Guinn and Faber (1986). These researchers asked hispanics and nonhispanics to rate the importance of attributes that they might consider in buying two products, laundry detergent and a TV set. They found that compared with nonhispanics, hispanics rated two attributes (price and friend's brand preference) as more important for laundry detergent, and seven of eight attributes as more important (e.g., price, brand, quality, and credit) for television sets.

Putting aside the issue as to whether it is appropriate to compare the means of the two groups in this manner (see Wood and Howell 1991 for arguments to the contrary), producers may again ask how such information can contribute to their marketing efforts. Designing and promoting a brand that features "low price" as a predominant attribute would not appeal to hispanics for whom price was unimportant (it is surely not suggested that such hispanics are nonexistent), although it would, of course, be interesting to nonhispanics for whom low price is a consideration. And again, besides low price, what attributes should the brand possess?

Spanish Language Preference

Another unexamined reason for recommending ethnicity as a basis for marketing strategy is the characteristic preference for the Spanish language by many hispanics. For example, it is recognized (O'Guinn and Meyer 1983) that many hispanics use Spanish language media, primarily radio and television and thus, for a marketer to reach this "market segment," advertising messages must be communicated in Spanish. There are at least two ways to consider the issue here: (1) as a purely business decision, and (2) as a decision guided by considerations of social justice or public relations.

(1) Considering first a purely business approach, the advertising decision is properly just one aspect of overall marketing strategy. On the assumption that within-activity wants are similar across ethnic groups and that Spanish speaking targets will not be reached other than by Spanish-language messages, it comes down to conducting a media buy analysis, applying the same criteria that are applied for the campaign generally. Based on those criteria, analyses show how available funds are best spent--on general media, or some mix of general and special language media (including various mixes of special language media, given that there are a number of ethnic groups, some of whose members may not understand English). It should be clear, however, that one is not thus targeting "hispanics," but rather attempting to reach the Spanish speaking prospects who fall into one's targeted segment. (For example, if the marketing analysis described earlier shows that the best national strategy for our brand of laundry detergent is to be formulated for light laundry of delicate fabrics, then our national media selection is going to seek media vehicles believed to offer a high concentration of individuals who want such attributes. Extending the media buy to include Spanish speaking targets attempts, similarly, to locate hispanics who do light laundry.) If it seems that including Spanish speaking targets is feasible within the budget on a *ceteris paribus* assumption, before giving the final "go" decision, the assumption should be examined. For example, the presence of a well-entrenched regional or ethnic brand that has been formulated for light laundry might argue against the decision because, presumably, the national campaign is not geared to challenge a well-entrenched competitor. Thus, management might decide that although Spanish speaking targets can be reached economically, such

funds would be misspent in that the chances of achieving a return on the investment are reduced because of the special competitive conditions existing within the hispanic market. (To keep the analysis simple, we are making the point here for the most straightforward case, i.e., where it is assumed that some hispanics simply will not receive our message unless it is in the Spanish language. Given appropriate documentation, we would extend the present analysis to cases where it is shown that message registration among targets is likely to be improved because of, e.g., greater familiarity with a mother tongue than with a second language, or greater receptivity engendered by feelings of national pride or ego enhancement due to being addressed in one's mother tongue. We stress, however, that we do not regard anecdotal evidence acceptable and that we would require research submitted in support of such claims to meet commonly accepted professional standards.) (2) Secondly, if one has decided, for social justice or public relations reasons, that regardless of return, it is proper to divert funds to special language media, the economic implications of so doing should nevertheless be estimated.

Whether as a purely business decision (i.e., expected return on investment), for reasons of social justice, or, more ambiguously, for public relations considerations, if management decides to use Spanish-language media, the translated advertising message should be checked for communicative problems to achieve good registration of the message and to avoid running afoul of culturally-given meanings that might be counterproductive (Valencia, 1983). The attentional aspects of the ad should also be checked to ensure that it is well designed to achieve processing by the targeted segment within hispanics (Fennell 1979). Note that the present analysis does not suggest changing the ad's essential message. Before such a change could be made on sustainable grounds, it would be necessary to redo the marketing analysis described above, but now defining one's prospects as hispanics who engage in the focal activity. The likely cost of such an analysis could well approach that of the original nationally based studies, and should be assessed in light of the number of ethnic groups that are candidates for such special treatment.

It must be fairly clear by now that the cause of "hispanic marketing" is not well-served by such studies reported in the "marketing to hispanics" literature. Most basically, a research design that is chosen to show differences between hispanics and nonhispanics is irrelevant to how a producer should proceed in trying to find favor with hispanics, and it establishes nothing to show a producer that his/her scarce resources are going to be well spent by being diverted to a special hispanic effort. Even if "hispanics" differ from "nonhispanics" on a particular want, no information is provided about the extent to which the want is well satisfied by the brands available to hispanics. Between-group differences, even when they achieve statistical significance, are far removed from the considerations that are relevant to a producer. An offering stands or falls depending on how well its attributes, compared with those of

competing offerings, match the concrete physical and psychological contexts in which individual human beings pursue a task or interest. Goods/services are judged, chosen, used and evaluated, not by "between group differences," but by individual human beings, hispanics or nonhispanics, in real world circumstances.

Consider the case of a producer who has already decided to try to make inroads into the "hispanic market." The producer's task is to create and announce the availability of an offering that some hispanics will find appealing, relative to their other options, so that they will repeatedly select that offering over the competition, and do so at a rate that gives the producer a satisfactory return on investment. What is going to be relevant here are exactly the same considerations that any producer deals with in deciding to try to gain a share of some market--identify the characteristics of the contexts in which the focal activity is performed, form the segments of demand, investigate how well such segments are being served by existing brands, judge the probability that the producer can successfully claim to be more appropriate than the competition for some subset of the contexts in which people (hispanics here) perform the focal activity (e.g., Fennell 1982a). In other words, the hispanic market is, from the point of view of marketing analysis, exactly on the same ground as the national, or black, or oriental markets. At the widest definition, a market consists of prospects for a producer's offering--people in a naturally-occurring population (or population subgroup), who are likely to be interested in using a particular category of good/service (e.g., dog food, live theater). Such interest is usually indexed by their engaging in some activity for which the category of good/service could conceivably be used (e.g., feeding a dog, regularly patronizing entertainment outside the home). A market *segment* consists of individuals *within* a market, i.e., a subset of such prospects, whose wants *regarding the focal activity* are sufficiently alike as to be addressed by the same *brand* formulation (physical and psychological).

We are now in the fourth decade of an era in which marketers act on the assumption that the wants of individuals who engage in a particular activity, who form a "market" in the broadest meaning of that term, are heterogeneous to the extent that they cannot be well-served by a single brand formulation. Recall, again, that a marketer does not hope to appeal to the entire national population: for any product the market is always smaller than a naturally-occurring population. A first cut through a naturally-occurring population gives the outside limits of a market, for convenience usually stated in terms of individuals who perform some activity. Moreover, *within* a market as defined, a producer does not hope to appeal to all prospects. Similarly, no one producer can count all hispanics as prospects, only those who engage in a particular activity and, *within* that group, a producer does not expect to find favor with all hispanic prospects. In a word, a producer does not plan to appeal to the entire national market, or to the hispanic, or black, or oriental, market by means of an

undifferentiated marketing effort. And beyond the market as defined, there are other members of the national population, and of the hispanic, black, and oriental populations, who are not in the picture for any individual marketing effort.

CONCLUSION

As to wants, markets are heterogeneous, and market segments are homogeneous. Accordingly, there is no sense in which it is proper to speak of a hispanic, or black, or oriental market segment. Doing so tends to reinforce the notion that ethnic groups can be stereotyped. To suggest that producers and advertisers can readily "appeal to" an ethnic group by some simplistic marketing gesture does disservice both to ethnic groups and to marketing practice.

Such a conclusion says nothing about the value of hispanic studies in general, nor does it seek to discourage interest in studying cultural diversity and pluralism. Moreover, it does not minimize concern for addressing minority disadvantage. Rather, the intention in the present context is to focus on maintaining our integrity as consumer researchers and marketers. To that end, we must try to ensure that our terminology with reference to marketing strategy is coherent, and our recommendations to management are such that we can stand behind, as scientists and practitioners.

In that connection, issues under a number of headings should be disentangled, including:

Social justice According to hispanics and other ethnic groups their due place as part of the fabric of American life,

Marketing science Developing marketing science and formulating guidelines for marketing strategy that enable producers to use productive resources to good advantage in serving people's wants,

Marketing practice Equipping marketing practitioners with analytic tools to use in advising management and clients regarding--

(1) the claims made and research presented by representatives in support of diverting funds to ethnic (language) media;

(2) the bottom line implications of allocating funds, to according ethnic groups their due place as part of the fabric of American life on social justice grounds, as well as where the line is blurred between social justice and responding to pressure for reasons of public relations; the implications of alternative ways of achieving social justice/public relations in the context, e.g., use of minority spokespersons, buying space/time in minority media, etc.;

(3) legitimate, sustainable arguments to use in approaching advertisers in order to achieve due recognition for ethnic groups as part of the fabric of American life.

As marketing professionals, we are properly called upon to advise management, business and nonbusiness, in regard to the implications of engaging in marketing in a pluralistic society. In this paper, we have but traced the outline of the kind of formulations and analytic tools that must be developed. We look for further developments toward achieving these goals.

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Cultural Value Orientations: A Comparison of Magazine Advertisements from the United States and Mexico

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ABSTRACT

This paper suggests that the understanding of cultural value orientations may be important when marketing products and services to other cultures. Cultural value orientations represent the basic and core beliefs of a culture; these basic beliefs deal with human's relationships with one another and with their world. The study evaluated the extent to which value orientations were present in advertising from the United States and Mexico. The analysis showed that the majority of ads did not express core cultural beliefs. Furthermore, when value dimensions were displayed in advertising, the position expressed on the dimension tended to be related to the nature of the product advertised rather than the orientation of the culture in which the ad appeared.

A debate in marketing over the past few years relates to the issue of how to market products internationally. The central aspect of this issue is the level of standardization that can be achieved when marketing in different cultures. Levitt (1983) has argued that the world is becoming more similar and more Westernized, therefore, companies desiring to market their products internationally can realize economies of scale by marketing globally with a single strategy. While such a possibility is enticing, many major blunders in international marketing such as those outlined by Ricks, Fu and Arpan (1974) are still fresh in marketers' minds. Kotler (1986), among others, has cautioned against the extreme position held by Levitt. Keegan's (1989) discussions of global marketing management clearly indicate that a decision on how to market internationally is a very complex one and relates to all aspects of the marketing mix. Therefore, which direction to take with regard to the issue of global marketing versus more local marketing will likely relate to the nature of the product, the business environment, and the cultures where the product is to be marketed. Wind (1986) suggests that the level of standardization may indeed differ as a function of which aspect of the marketing strategy is being considered. Clearly, international marketing is complex process and it is likely that standardization across all the marketing variables will be a rarity.

Given that complete standardization will generally be an unusual case, it would seem that an understanding of culture and cultural differences will be important to those who desire to market internationally. Culture is the complex system of meanings that a group has in common and this set of ideas may be very different from the culture of another group. Culture pervades every aspect of a society and affects the thinking and acting of every member of a group. Yet because culture is so pervasive and basic to a group, there are subtleties about the culture that group members may know and understand, but are unable to articulate to others outside of the group.

This, in a sense, is the fundamental problem of understanding a different culture from one's own: members of the culture may not be able to clearly articulate the culture to an outsider since the culture is such a basic part of their lives.

McCarty (forthcoming) has suggested that a starting point for understanding a culture and differences in cultures may be cultural value orientations. Kluckhohn (1951) defined value orientations as "a generalized and organized conception, influencing behavior, or nature, of man's place in it, of man's relation to man, and of the desirable and nondesirable as they may relate to man-environment and interhuman relations (p. 411)." Cultural value orientations, therefore, represent the most basic and core beliefs of a society. These beliefs form the central understandings that members of the culture have and, as suggested by Kluckhohn, they relate to human's relationship with one another and the world around them. McCarty argued that an understanding of these core beliefs may be important for those who wish to market their products in different cultures.

Cultural Value Orientations

Different cultural value orientations have been discussed by numerous social scientists over the past few decades (Hofstede 1984; Kluckhohn 1956; Kluckhohn and Strodtbeck 1961; Triandis 1989). These authors have identified dimensions on which cultures may vary and several of these will presently be discussed.

Individualism-Collectivism. The dimension of individual-collectivism relates to human's relationship with one another and it has been investigated by several social scientists (Hofstede 1984; Kluckhohn and Strodtbeck 1961; Triandis 1989; Triandis, et al. 1988). Individualistic societies are those which value the individual relative to the group. Individual achievement, recognition, etc. are encouraged and rewarded. Collectivistic societies, on the other hand, place an emphasis on the group rather than the individual. Individuals are important only in that they are members of the group. Collectivistic cultures stress cooperation among group members and the importance of group goals rather than individual goals.

Research has generally shown many of the industrialized countries such as the United States, Sweden, Great Britain, and Germany are individualistic cultures, while Mexico, Peru, Thailand, and Chile are relatively collectivistic cultures (Hofstede 1984). Triandis (1989) has noted that cultures tend to evolve from collectivistic to individualistic as they become more industrialized. Therefore, it is likely that countries like Mexico are moving toward more individualism as time passes.

Masculinity-Femininity. The dimension of masculinity-femininity deals with the extent to which the characteristics of one sex are favored in the culture relative to the characteristics of the other sex (Hofstede 1984). Therefore, this dimension relates to the extent to which a particular culture values traits associated with males such as achievement, aggression, and dominance versus the extent to which the culture prizes such feminine characteristics as nurturance, helpfulness, and affiliation.

Mexico, Japan, Italy, and Switzerland are highly masculine cultures while Sweden, Norway, Chile, and Denmark represent feminine cultures (Hofstede 1984). The United States is somewhat in the middle on this dimension, but tends to lean toward being more masculine than feminine.

Time Orientation. Kluckhohn and Strodtbeck (1961) argued that cultures may vary in terms of whether they are primarily oriented toward the past, the present, or the future. Past oriented societies tend to have reverence for tradition and their cultural heritage. Such cultures are apt to believe that the way things have always been done is the way that they should continue. Future oriented societies tend to embrace the future and, in a sense, look forward to change and all that the future will bring. Other cultures live for the present and, as Kluckhohn and Strodtbeck note, consider the past as unimportant and the future as unpredictable. For these cultures, therefore, an orientation toward the present is the only one that makes any sense.

As Kluckhohn and Strodtbeck point out, the United States is a very future oriented society. Members of this society believe that the future will generally bring good things and members of the culture orient themselves toward that eventuality. The evidence suggests that most Spanish-American cultures, including Mexico, tend to have a present orientation.

Uncertainty Avoidance. Cultures vary on the extent to which they are willing to tolerate ambiguity and uncertainty (Hofstede 1984). As Hofstede notes, uncertainty about the future tends to create anxiety and stress and societies differ on the extent such uncertainties exist and the extent to which the uncertainty and resulting anxiety is avoided or tolerated. Generally speaking, high avoidance of uncertainty is more common among cultures which are experiencing a rapid change such as newer democracies while more advanced societies, such as the older democracies, tend to have more tolerance for uncertainty. Mexico, Japan, Spain, and Greece are examples of cultures which have relatively high avoidance of uncertainty, according to Hofstede, while the United States, Canada, Great Britain, and Hong Kong are cultures which tend to have a greater tolerance for uncertainty.

Activity Orientation. Activity orientation focuses on the stance which a culture takes with regard to action versus reflection. As Kluckhohn and Strodtbeck (1961) indicate, doing versus being as stances toward human activity have been discussed in much of the philosophical literature over the centuries. Doing cultures are those which place a

premium on activity and action. Accomplishment is considered important in these cultures and one can only accomplish something by acting or doing. Being cultures, on the other hand, focus on reflection and understanding.

The United States is a very doing oriented culture (Kluckhohn and Strodtbeck 1961). This is apparent in almost every aspect of the culture of the United States. Accomplishment and action tend to be rewarded in this culture. Traditional cultures tend to be more being oriented compared with advanced cultures.

Human's Relationship with Nature. Kluckhohn and Strodtbeck (1961) argue that how humans view nature and their relationship with it is yet another basic arena with which humans must deal. They identified three stances that a culture can take concerning nature. A culture can feel that it lives in harmony with nature, it is dominant over nature, or that it is subjugated to nature. Cultures which believe they are subjugated to nature feel that there is little they can do about the forces of nature, while cultures which hold a dominance stance believe that they can control and change natural forces. As Kluckhohn and Strodtbeck note, the culture of the United States tends to believe in dominance over nature while most Spanish-American cultures take a subjugation stance with regard to nature.

The cultural value orientations that exist in a culture reflect the general leanings of a culture as a whole. The beliefs of individuals within any given culture on particular value dimensions may vary and deviate from the general stance of a given culture. The extent to which there is homogeneity or heterogeneity of individual beliefs within a culture is itself a dimension on which cultures may vary. Triandis (1989) argues that there are "loose" cultures which tolerate differences in people and there are "tight" cultures which are relatively intolerant of differences. Tight cultures have stronger sanctions against norm violations, for example, than loose cultures.

It should also be stressed that value orientations may change over time. As previously pointed out as cultures become more Westernized and industrialized, they tend to become more individualistic. These changes may be apparent in advertising. Mueller (1987), for example, showed that advertisements from Japan tended to reflect the Western value of individualism rather than the traditional collectivistic nature of that culture.

The Present Study

The present investigation had several related purposes. The primary question was to what extent are cultural value orientations reflected in the advertising of a culture? Similar comparisons have been made previously by numerous authors (e.g., Belk and Bryce 1986; Mueller 1987; Tansey, Hyman and Zinkhan 1990; Tse, Belk and Zhou 1989; Wayne 1956) for a variety of cultures including Japan, the Soviet Union, China, Hong Kong, Brazil, and the United States. Most of these studies compared the advertising of different cultures, however, the comparisons were not always at the level of core cultural value orientations. The current investigation compared print advertising

in the United States with that of Mexico on the several value-orientation dimensions discussed.

One purpose of the analysis was to determine the extent to which value orientations are expressed in advertising. It has been argued that these basic value dimensions are important for marketers to understand if they choose to market internationally. This importance does not necessarily mean that value orientations will be expressed in advertising. That is, even though core beliefs are important to a cultural group, these beliefs may not represent the best appeal for products or services. It is expected, therefore, that while value orientations may be represented in ads, they will not necessarily be the main appeal. The analysis in the study evaluated the way in which the value orientations were present in the ads.

An additional aspect of the analysis related to the extent to which expressed value-orientation appeals are consistent with the stance of the culture or inconsistent with the cultural beliefs. Intuitively, it would seem that the values expressed in advertising would be consistent with a culture's beliefs. As noted, however, Mueller (1987) has suggested that value orientations expressed in advertising may tend to be consistent with the direction in which a culture is evolving rather than the traditional beliefs of the culture.

METHOD

Print advertisements in magazines published in the United States and Mexico were analyzed to determine the prevalence of cultural value orientations in the advertisements. This study was an initial exploration in the evaluation of cultural value orientations in advertising. It was designed to aid in identifying important issues and concerns for future work in this area and to evaluate whether the study of cultural value orientations in advertising is a fruitful research path. Therefore, the following represents a preliminary analysis based on the coding of values themes made by one coder. The coder, fluent in both English and Spanish, analyzed the advertisements in both the Mexican and American magazines. Therefore, this reports work in progress and the results and conclusions should be considered tentatively, given that multiple coders have not been used.

The value orientations of interest in the current study were individualism versus collectivism, masculinity versus femininity, time orientation, activity orientation, human's relationship with nature, and uncertainty avoidance.

Mexico and the United States were selected for investigation since these two cultures tend to differ on the value orientations that were investigated. The United States is very individualistic, future oriented and oriented toward doing. This culture tends to believe in mastery over nature and is relatively tolerant of uncertainty. Mexico is a relatively collectivistic society which is present oriented and oriented toward being rather than doing. The one dimension which these two cultures do not differ dramatically is masculinity-femininity. Mexico is a highly masculine culture while the United States is a relatively masculine culture. One hundred ninety-five

Mexican advertisements from eleven magazines were analyzed, while 100 advertisements from six magazines from the United States were analyzed. A variety of magazines in both cultures were used, including women's magazines, men's magazines, parenting magazines, and gossip magazines.

The analysis of cultural value orientations in the advertising was conducted in the following manner. An advertisement was evaluated to determine whether each of the cultural value orientations was present in the advertisement or not. If a value-orientation was present, it was further analyzed to see if the orientation was consistent or inconsistent with the culture. For example, if individualism was expressed in an advertisement from the United States, it would be coded as a consistent value-orientation. In a Mexican advertisement, an expression of individualism would be coded as inconsistent. A third aspect of the coding related to the level that value orientations were expressed in the advertisements. The three levels at which the value orientations were coded as present in an advertisement were 1) the value-orientation was the main appeal of the advertisement, 2) the value-orientation was an appeal in the advertisement but not the main appeal, or 3) the value-orientation was present in the advertisement, but was not used as an appeal.

RESULTS

Thirty-five percent of the advertisements from the United States displayed at least one of the value orientations that were investigated. Forty-one percent of the Mexican advertisements had one or more of the value orientations present. Table 1 shows the percentages of the advertisements containing each of the value orientations for the magazines from each of the cultures. The table also indicates the extent to which the displayed value orientations are consistent with the culture or inconsistent with the orientation of the culture.

As the table indicates, the individualism-collectivism dimension and the activity orientation dimension were the two value orientations that were displayed in the advertising most frequently for both cultures. All other value orientations were present in less than 10% of the ads in both cultures. In the case of individualism-collectivism, a slight majority of the advertisements were consistent with the culture. That is, 61% of the ads from the United States that dealt with this dimension were individualistic; 53% of the Mexican ads dealing with individualism-collectivism were collectivistic. Therefore, a sizable percentage of ads in both cultures were *inconsistent* with the dominant orientation of the culture.

For the activity orientation dimension, all of the advertisements from the United States dealing with this dimension were consistent with the doing orientation of the culture. For Mexican advertisements, nearly all of the ads relating to this value-orientation were also of a doing theme, thus being inconsistent with the dominant orientation of the culture. This doing orientation in the ads seems to relate to the nature of the products advertised. Most advertised products solve some problem for consumers

TABLE 1
Value Orientations in Magazines from the United States and Mexico

<u>United States</u>			
<u>Value Orientation</u>	<u>Percent Having Value</u>	<u>Percent Consistent With Culture</u>	<u>Percent Inconsistent With Culture</u>
Individualism/Collectivism	31%	61%	38%
Time Orientation	5%	80%	20%
Activity Orientation	21%	100%	0%
Masculinity/Femininity	3%	0%	100%
Human's Relationship with Nature	2%	0%	100%
Uncertainty Avoidance	3%	0%	100%

<u>Mexico</u>			
<u>Value Orientation</u>	<u>Percent Having Value</u>	<u>Percent Consistent With Culture</u>	<u>Percent Inconsistent With Culture</u>
Individualism/Collectivism	32%	53%	47%
Time Orientation	8%	50%	50%
Activity Orientation	14%	4%	96%
Masculinity/Femininity	3%	66%	33%
Human's Relationship with Nature	9%	100%	0%
Uncertainty Avoidance	4%	100%	0%

Note - Total number of ads is the base for the first column percentages. Percentages in the other two columns are based on ads having that value-orientation.

and thus action to solve the problem must be taken by the consumer. In other words, most products tend to relate to doing rather than being.

For other value-orientation dimensions, the percentages were too small to evaluate the importance of the level of consistency with the cultural orientation. It was noted during the analysis that the orientation expressed in the advertisements appeared to be a function of the nature of the product. For example, the majority of ads dealing with uncertainty avoidance were for pregnancy tests; the inherent nature of such a product is to alleviate uncertainty and anxiety about pregnancy.

For only 22% of the ads from the United States and 19% of the ads from Mexico, the value-orientation mentioned in an advertisement was the primary appeal. The value-orientation in the ad was a secondary appeal for 52% of those from the United States and 60% of the ads that showed a value-orientation in Mexico. The value-orientation was merely present in 25% of the instances for the United States and in 21% of the Mexican ads that displayed a value-orientation.

DISCUSSION

A number of tentative conclusions can be drawn from this preliminary analysis of advertisements from the United States and Mexico. Although it has been

argued that the core cultural value orientations are important in international marketing, the current results indicate that appeals to these values do not appear in advertising very frequently. A majority of ads from either culture expressed none of the value orientations. In only a few instances was a core cultural value the main appeal of an ad. Moreover, appeals to a value dimension were often inconsistent with the traditional stance of a culture.

While most cultural values are rarely represented in advertising, these tentative results indicate that individualism-collectivism may be an important dimension, relative to the other dimensions studied. This dimension was represented in nearly one third of the ads in both the United States and Mexico.

The analysis suggests that the nature of the products advertised affects the way a value dimension is portrayed in an advertisement, regardless of a culture's traditional stance on the dimension. For example, even in a being oriented culture where members prize reflection rather than action, ads tend to express a doing theme since most products are designed to help people accomplish something.

The analysis also indicated that recent trends in cultural beliefs may be important in advertising, regardless of the traditional beliefs of a culture. Although the United States is a culture that has traditionally believed in dominance over nature, the

recent greening movement is consistent with a harmony with nature stance. It is the harmony with nature position that was apparent in a few of the ads that displayed a theme related to human's relationship with nature.

These results do not mean that a knowledge of cultural values is unimportant for marketers. The results do show that for current advertising in the United States and Mexico, appeals to these core beliefs do not form the basis for most promotional appeals. This is not surprising, if one considers that fact that these cultural beliefs are very basic and, hence, are not likely to form the basis of effective advertising. Although not critical for promotion decisions, an understanding of the value orientations of a culture may be essential for the design of distribution systems, packaging and other product decisions, and other aspects of the international marketing program.

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What It All Adds Up To: Culture and Alpha-Numeric Brand Names

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The majority of human behavior, including consumer behavior, is learned. Acquired solely through social contact with other human beings, this enormously complex system of learned ideas, beliefs, norms, values and behaviors is referred to as "culture." This paper explores culture in the context of a specific set of learned attitudes regarding the use of numbers and letters in brand names. Focusing on American society, the authors delineate and analyze patterns of learned associations and multiple meanings associated with alpha-numeric brand names and brand name components. Our data suggest that brand names send powerful, sometimes unintended messages to the consumer, thereby affecting perceptions and behavior.

At birth, the human animal is virtually a *tabula rasa*, waiting for that learned complex of behaviors called culture to provide understanding, sustenance and meaning. Among the messages to be socially inscribed are the interpretation of otherwise arbitrary symbols connected with the act of consumption. This paper explores the meaning of alpha-numeric brand names in American culture. The authors contend that, like other symbolic representations, brand names carry with them covert meanings. The American consumer receives powerful cues from the specific type of brand name under consideration here, alpha-numeric brand names. These cues are learned through experience with other products, gender constructs within the society, and other patterns of behavior and interpretation in American society.

CULTURE

Culture remains an underexplored topic in the field of consumer behavior. Although many theorists implicitly assume that culture affects consumer behavior, most scholars are either unaware of their own assumptions or choose not to explore fully the concept of culture. When culture is brought to the forefront of an analysis, it is often in the form of cross-cultural comparisons, a procedure which highlights differences among cultures but frequently fails to bring out the depth to which culture itself influences all human behavior. Prime examples of full, in-depth analyses of cultural effects on consumer behavior are few; Costa and Belk (1990), McCracken (1988, 1989) and Sherry (1990), for instance, represent exceptions rather than the rule.

Enculturation, Systems, and Cross-Cultural Comparisons

The influence of culture on the growing human being begins *prior* to birth through the eating, sleeping and other behavioral patterns of the pregnant mother. In the first few years of life, the human child is exposed to an elaborate system of shared understandings, "culture," which imparts meaning to actions, behavior, objects and existence. This process of acquiring culture is referred to as

enculturation (Durkheim 1895). Through both overt and covert means, the individual learns "that complex whole which includes knowledge, belief, art, morals, law, customs and any other capabilities and habits acquired by man as a member of society" (Tylor 1958, p. 1). Either through internalization of norms or through social pressure, members of a society understand and enact, or choose not to enact, the socially accepted behaviors and norms (Barrett 1984). Virtually all sensory inputs pass through the cultural screen, distorting the perception process selectively and skewing the interpretation of messages accordingly. Since the systems of meaning vary from one culture to the next, messages are interpreted differently. It is the purpose of this paper to determine the nature and extent of American cultural influences on the interpretation of messages encoded in alpha-numeric brand names.

Cultural anthropologists have described broad areas of cultural systems, the structure, function, meaning and interpretation of which vary from one society to the next. Among others, these broad areas include patterns of ownership, exchange and inheritance, social organization for production, distribution and consumption, and for decision-making, influence and control, ideas and beliefs concerning the cosmos and the nature of the world, social systems involving family size, form and function, extended kin and non-kin ties, gender constructs, and material culture.

Theorists in the fields of marketing, consumer behavior and international business have focused on several specific dimensions of human behavior as manifesting critical variations cross-culturally. Hall and Hall (1987, 1990), for instance, describe differences in speed, context, space and time. Harris and Moran (1987) deal with cross-cultural variations in leadership and management styles, communication, job expectations and performance, and work culture. Within consumer behavior, Wallendorf and Arnould (1988) have looked at object attachment and the meaning of possessions; other theorists have focused on specific cultures, describing them in depth and providing a basis for further cross-cultural comparison (e.g., Arnould 1989, Costa 1989, McCracken 1988).

Cultural Learning and the Interpretation of Brand Names

The case study presented here is concerned with alpha-numeric brand names. "Alpha-numeric" refers to those brand names which are mixtures of letters and numbers, the latter of which can appear either as digits or written out in word form. Examples include combinations of letters and numbers (e.g., WD-40; V-8; 3M) or words and numbers (e.g., Alberto VO5; Saks Fifth Avenue; Colt 45 Malt Liquor). In some cases, the numeric component actually describes a model or model number used by the consumer to identify the product. For example, in the case of "Porsche 911,"

the "911" is the model number. However, for the consumer, the number may be an important component of the brand name, identifying the specific product and distinguishing it from other brands such as the Porsche 914. In such cases, the model number itself is considered to be part of the brand name.

Excess Meaning

In the context of alpha-numeric brand names, three general areas of culture and cultural learning are implicated. First, numbers are a special category of symbols which carry "excess meaning." That is, a number is not just a number. Rather, like other symbols, a number evokes numerous thoughts and connotes many things beyond mere quantity, a fact which has been documented in many societies. In the United States, for example, three (3) is a "sacred" number (de Lys 1957), connoting Christianity and the triple God-head, strength and power (FBI, CIA are three-letter acronyms), and business acumen or quality (IBM, RCA). Euroamericans have numerous beliefs which involve numbers; 7 and 13 are thought to be "lucky" or "unlucky," for instance (de Lys 1957; Lasne and Gaultier 1984). According to a study by Knapp and Chen (1964), American respondents feel that small numbers are "simple, complete, and weak," whereas larger numbers (above three) are "smooth, powerful, complex and masculine." Similarly, odd numbers are seen as "lucky and powerful," while even numbers in American society are thought to be "smooth and feminine" (see also Battig and Spera 1962; Cockran and Wickens 1963). In many Native American societies, four (4) is a number with special meaning related to the four directions; in Chinese culture, eight (8) signifies good fortune:

"Eight indicates prosperity: on the 8 August 1988, 8-8-88, an unprecedented number of new businesses were registered or opened in Hong Kong in the hope that they would be blessed with this prized commodity...Likewise the number 4 is associated with death because the number and word death share a phonetic similarity...In Japan too the use of the number 4 is also to be avoided since the word for it, *shi*, is also the word for death" (McDonald and Roberts 1990, p. 13).

The "excess meaning" of numbers may be perceived at a subconscious level, as are perceptions of personal space invasion, territoriality and other aspects of the cultural code (Barrett 1984; Hall and Hall 1987, 1990). It should not be surprising to find that "excess" meanings associated with numbers in a particular society carry over into numbers used in brand names, thereby affecting individuals' interpretations and perceptions about the named products.

Gender Constructs

A second general area of cultural influence on the interpretation of brand names in American society is gender constructs. In all societies, the basic physiological differences of male and female are elaborated into complex gender schemata whereby

expected or "appropriate" modes of dressing, working, speaking and other behaviors, as well as personality characteristics, are attributed to individuals on the basis of gender. Because the enormous cross-cultural variation extant in gender constructs is not widely known among the general populace, these gender-based systems of differences are often perceived to be biologically induced rather than culturally created. In American society, learned gender constructs have included the *stereotypical* beliefs that, *in general*, males are "better" at math, more competent in technical matters, more quantitative in orientation, more impersonal and objective, less emotional and more "balanced." American women, on the other hand, are *stereotypically* considered to be less competent in math, less oriented toward quantitative perspectives, less able to handle technical equipment and technical matters well, more emotional and subjective (Bellah et al. 1985, Epstein 1988, Harris 1981, Kitzinger 1980). Careful scrutiny reveals an intimate connection between *learned* gender constructs and *learned* attitudes about numbers (see Deboer 1984; Markoff 1989; Marshall 1983, 1984; Marshall and Smith 1987; Newton 1986; Sherman 1983; Tracy 1987; Ware and Lee 1988). Discussion of the nature and origin of these stereotypes is beyond the scope of this paper. What is of importance, however, is that the stereotypes exist and seem to affect perceptions about alpha-numeric brand names; this connection is explored more fully below.

Learned Associations

The third area of culture critical to the interpretation of alpha-numeric brand names is learned associations of numbers, letters and names with specific products. It is important to recognize that this again is cultural learning that may result in sub-surface or unconscious awareness and interpretation. Thus, individuals are not always certain *why* they associate particular number and letter combinations with certain products. Our informants felt certain brand names seem to "fit" a product; other theorists have reported similar responses. Peterson and Ross' (1972) data indicate consumers may feel a certain product name is more suited to one product class than to another; their respondents felt "Whummies" was "remindful" of cereals, whereas "Nemlads" was not, for instance. Zinkham and Martin's (1987) study concluded that brand names which seem "typical" for a product category benefit from consumers' inferential beliefs. As a result, these products may be easier to promote than those in which the given name does not seem to "fit" the product (see also Anon 1985, Boyd 1985). In some cases, this perception of "fit" may be due primarily to learned associations of given brand names with particular products, rather than to gender constructs or other learned patterns.

As might be expected, it is difficult to separate the underlying bases of such responses from one another. This is at least partially the case because components of culture are so intimately related to one another. Like a complex woven tapestry, the various parts of culture are patterned and integrated. Thus, a respondent's interpretation of a brand name may be the

result of learned assumptions about certain sounds, letters or numbers, gender-based constructs, or associations with certain product categories. So, for example, the letter "X" may imply harshness and angularity, seem masculine to some informants, and remind respondents of fast, sporty cars through association with the Mazda RX-7 *all at the same time* (see Pavia and Costa 1991a; 1991b). We contend, in fact, that it is this patterning and integration, this mutual reinforcement of the various cultural facets, which makes some brand names seem so compellingly appropriate and others seem so dismally inappropriate.

Numerous studies indicate letters themselves may have subsurface or covert meanings to members of a particular society. For example, Dogana (1967), following Sapir (1929), found that speakers of Romance languages interpret certain vowels and consonants as "bigger." Taylor's (1963) work indicated English speakers associate G and K with largeness and T and N with smallness, while Korean speakers feel T and P imply largeness, and J and M indicate smallness. When studies such as these suggest the implied associations or meanings of the letters vary from one society/language to another, we can assume such variations are a product of learning and culture (see also Davis 1961; Heath, Chatterjee and France 1990; Schloss 1981; Schmitt, Leclerc et al. 1988).

The Enculturation Process

A final part of culture which deserves some attention here is the enculturation process itself. If, as we contend, members of American society learn that certain numbers and letters fit with certain products and that these numbers/letters/products have gender and other associations, at what point do such associations solidify in the individual? Our preliminary studies seem to indicate that these associations are largely congealed by the time American children enter adolescence.

INVESTIGATION AND INTERPRETATION

The Investigative Process

In order to examine more fully the 'excess' meaning of numbers and letters in alpha-numeric brand names, the authors used a combination of quantitative and qualitative methods. Literature searches and initial depth interviews helped define the parameters for eight focus groups of 6-10 participants each, using a total of 63 college-level informants. These qualitative methods were followed by a quantitative approach in which we administered open-ended questionnaires to 144 students. Presented with hypothetical alpha-numeric brand names, respondents were instructed to "describe the product that seems most appropriate to you to have this brand name."

In the most recent stage of the research, we attempt to determine the point at which children in American society begin to perceive and express an association between alpha-numeric brand names and particular products. To this end, the authors and

student assistants conducted 28 depth interviews with children aged 4 to 12. Based on the outcome of these interviews, questionnaires were designed and administered to 24 fourth grade children, 9 and 10 years of age (5 female; 19 male). The findings from these questionnaires were consistent with those from the depth interviews. All data bases are open and available for verification and perusal by other researchers.

Cultural Interpretation of Alpha-Numeric Brand Names

A brand name provides important information to the consumer which can affect consumer interpretations and purchase decisions. The data provided in our study support the contention that brand names send important culturally-based messages to the consumer; the content of the messages is determined by and interpreted through a cultural screen; it is, therefore, intimately related to and integrated with other parts of the culture.

Marketers generally agree that a brand name should be distinctive, descriptive, short and easy-to-say and remember (Kotler 1988). For cross-cultural effectiveness, McDonald and Roberts (1990), following Collins (1977) indicate the brand name should also be "easy to read in all the countries in which the brand is to be marketed" and "of such a verbal form as to have semantic and or symbolic associations, i.e. conveys feeling" (1990, p. 10). The latter recommendation is of particular interest to us in the context of this study. Our data indicate consumers often have strong, if subsurface, feelings about the brand names they encounter. These feelings have numerous sources, learned through association with other products, through shared cultural ideas about certain sounds and figures, or through other cultural contexts.

In American society, it is apparent that a clear, strong relationship exists between gender constructs and numbers. This relationship carries over into interpretations of alpha-numeric brand names. Our data indicate American consumers tend to associate alpha-numeric brand names with complex, technical products, such as computers, radios and stereos, cars and planes. Additionally, they believe alpha-numeric brand names are appropriate to express chemical content, scientific formulae and nutrient value. Both the qualitative and quantitative data support this finding. The focus group responses presented below are representative of consumer interpretations of alpha-numeric brand names as indicative of the technical and scientific (focus group number and informant gender indicated):

- (FG#3) F: I think anything scientific, something that denotes that it's higher technology is appropriate [for an alpha-numeric brand name].
- (FG#5) M: Well, they use a number because of science.
- (FG#5) M: ...any number denotes high-tech, in my mind, you know.

In the open-ended questionnaires, respondents were presented with hypothetical brand names and were asked to free associate, describing what types of products they felt would "go with" the presented names. The association of alpha-numeric brand names with cleaners, soaps or detergents and with cars and car-related items was strong and consistent. For example, fully 67% of the informants indicated "A 909" would be an appropriate brand name for such products. When the "A" was changed to an "X," the underlying association of certain *letters* with technicality became more evident; 84% of respondents felt "X 909" would be an appropriate brand name for soaps and cleaners or car and car-related items, for example. Those responses which could not be categorized as cleaners/soaps/detergents or car and car-related items nevertheless indicated items that are technical or chemical in nature: computer, CD player, scientific calculator, high quality mountain bike, and bug spray.

Informant responses to questions concerning what type of product would have an alpha-numeric brand name reinforced the gender-based association of products and alpha- numerics:

- (FG#1) M: Motorcycles or airplanes or computers or something that at least until recently were more a part of a man's domain, so therefore, more a man's product...
- (FG#2) F: I think, as far as cars go, the numbers are more for the masculine, because the higher they are, the more powerful the car is. Whereas women don't care as much about how powerful it is.

The data became increasingly interesting as we began to explore the meanings associated with *specific* numbers and letters. In this context, it became clear that underlying, often unconscious, meanings of particular numbers and letters are intimately related to gender constructs in American society. Thus, informants said:

- (FG#5) M: I don't know, a smaller number, twenties or teens, might denote a feminine number...
- M: Maybe the smaller numbers denote petites...
- (FG#8) M: I think larger numbers like four digit numbers, five digit numbers, seem more masculine, too, than, say, smaller numbers, like 55. And even triple digit numbers seem feminine, I don't know why. But larger, like 10,000, sound masculine, seems masculine to me.

In some cases, informants indicated the shapes and sounds of both letters and numbers are related to American gender constructs. Thus, "soft," "rounded," "flowing" numbers and letters are interpreted as feminine; while "harsh," "angular," "blunt" forms are suggestive of masculinity:

- (FG#5) F: I was thinking that 36 might be feminine...I was thinking of, like, when you said 88, the shapes of the numbers, I think make a big difference...
- F: Like 44, to me, seems masculine. It's very sharp, it's very cut, it's very precise, square...
- M: And the numbers that seem, that are rounder and softer, it makes a difference somewhat.
- (FG#6) F: I kind of think a number like 21 is kind of masculine because it's just kind of blunt, kind of like - - hard.

The association of angular form with technical, hence stereotypically male in American society, was further supported by the open-ended questionnaire data, as indicated above in the example of "A 909" versus "X 909" (see Pavia and Costa 1991a for further discussion). As number and letters are combined into brand names, the gender-related meaning is carried over into both the name and the product, then, if we accept the contention that Americans stereotype "technical," "powerful," "large" or "scientific" as more related to males than to females:

- (FG#5) M: It seems that like the number/letter combination names -- and I never thought of this before -- but, it seems like the majority of them denote some masculine product, or at least some masculine image when you think of them. I'd never thought of that before, but it seems like most of them are masculine. I don't know. Is there a reason to have more products in those categories [that] have a masculine image? Do you think of males when you think of technology, or advanced features, or those kinds of things?
- M: Yeah, kinda, only because I don't think women are pushed into science.

Our research with children indicated that the perceived association of alpha-numeric brand names with specific types of products is already manifest in some children by the age of 5 or 6. By 9 years of age, the associations are even more prevalent and predominate the fourth grade sample. Thus, "A 2"

consistently suggested the technical; responses included "robot," "scientific calling of something," "computer" and "plane," for example. On the other hand, "Whummies" was suggestive of softness, animals, candy and toys: "gross squishey things," "little animals," "toys that are soft to hit people with," and "a good!! food." While the alpha-numeric brand names were consistently identified with 'technical' products, however, the association of this type of products with masculinity is emerging, but not solidified by this age. For example, while some informants indicated "XV75" would be an appropriate name for "airplane, new and improved robot, car, a secret submarine, tank, a code word, VCR," and that such products are "boy" products; others felt "XV75" would suggest "car motor, car (2 responses), jet, robot (2 responses), computer, B-1 bomber, missile, radio station, explosive, code, license plate," but that these products had no gender distinction, being neither consistently "boy" or "girl" products. It appears that such gender associations, perhaps not surprisingly, may solidify during adolescence. By the time respondents reach college age, the age of the majority of those in our combined samples, gender-based interpretations were definitely forthcoming. It is important to recognize, as well, that American culture changes rapidly and that, despite a mere 10 years' difference in age between our college-level informants and the fourth grade sample, quite different gender stereotypes may be developing.

CONCLUSIONS AND IMPLICATIONS

It has been possible here only to consider briefly the numerous culturally derived connotations and interpretations associated with brand names. Our data indicate that alpha-numeric brand names carry "excess" meaning. A consumer in American society, confronted with an alpha-numeric brand name, is thus likely to receive messages about the product which go beyond the manifest, surface content and evoke underlying cultural constructs related to gender and product type. While we have focused on alpha-numeric brand names, our adjunct data and the studies of numerous other theorists indicate brand names in general carry meanings and evoke interpretations beyond those immediately evident.

Specifically, as the American consumer matures, he or she is exposed to numerous messages which indicate that gender and numbers are related in very specific ways. These messages are derived from past association of certain types of names with certain products, through cultural stereotypes regarding male and female expertise in science and math, or through other learned beliefs and attitudes about gender-based personality structures and behavioral patterns. In any and all of these cases, the gender-based meaning is transferred to various components of the alpha-numeric brand names, resulting in the phenomenon of "excess" or covert cultural meanings attributed to the brand/product.

In order to understand the full impact of culture on consumer behavior, it is appropriate to focus on very specific, context-bound examples. In this paper, we have attempted to provide a brief illustration,

elaborated upon elsewhere, of the ways in which culture is manifest in and affects consumer interpretation of brand names. Our analysis points to the complexity of culture and its effects, specifically delineating the patterned and integrated interactions of various cultural components and systems. Thus, in the case presented here, we have illustrated the interwoven nature of product category, cultural expressions of masculinity and femininity, and arbitrarily assigned symbols in the form of alpha-numeric brand names. It is clear that culture influences interpretation and behavior in numerous and varied ways. We conclude that culture as a construct is critical in understanding consumer behavior in general and that culture must be incorporated more fully into analyses by consumer behavior theorists. As meaning is created and shared by members of a society, they encode that meaning in and through various objects, persons and symbols. We have tried to show here that the components of alpha-numeric brand names are culturally encoded in this way.

Through the alpha-numeric brand name case presented, we believe we have shown both the analytical and theoretical importance of utilizing the concept of culture in consumer behavior studies. The way in which alpha-numeric brand names capture cultural themes has managerial implications as well; appropriate branding strategies can be undertaken only when the marketing manager understands the culturally derived meanings of the specific numbers, letters or other symbols utilized in the brand name. Given the cultural basis of the interpretation, the work presented here suggests that a thorough investigation of the covert or "excess" meanings of given characters is particularly important in the context of developing international brand names or brands for diverse ethnic groups, where products are expected to cross cultural boundaries.

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Meaning Construction in a Cultural Gallery: A Sociosemiotic Study of Consumption Experiences in a Museum

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ABSTRACT

The recent cross-fertilization of different semiotic traditions has resulted in a sociosemiotics that combines sophisticated textual analysis with a pragmatic, socially-situated approach to meaning and message reception, and this new form of sociosemiotics has proven a useful tool for investigating a wide variety of marketplace behavior. This paper presents a study of visitor experiences in a cultural gallery of the Indianapolis Children's Museum. The study made use of this methodology and perspective, along with Mihaly Csikszentmihaly's concept of optimal experience and George Herbert Mead's notion of the collapsed act of the artefact. It is argued that the meanings the gallery has for visitors are the product of a complex interaction between the pragmatic strategies visitors (and their partners) bring to the experience and the meanings implied by the ways the displays themselves are structured.

CHANGING PERSPECTIVES ON BEHAVIOR IN MUSEUMS

At the same time that a growing number of voices are demanding that increased attention be paid to the full range of human experiences in museums, and to the social and political contexts of those experiences (e.g., Annis 1986; Carr 1990; Grabum 1977; Karp and Lavine 1991; Kelly 1987; MacDonald and Alsford 1989; Véron and Levasseur 1989; Zunzunegui 1990), evaluative research done in museums, even when using naturalistic observation methods (e.g., Wolf 1980; Wolf and Tymitz 1979a, 1979b) continues to be dominated by a positivistic paradigm in which the transfer of educational content from curator to individual visitor is assigned a preeminent position (see, e.g., the review in Screven 1984). Based on an implicit Durkheimian split between the *cognitive*, seen as problem-solving, rational, and individual, on the one hand, and the *emotive*, seen as irrational and social, on the other, evaluation tends to take on the task of solving the curatorial problem of how to teach visitors for whom a visit to a museum is first and foremost a social experience, pursued as a leisure activity and with the primary goal of entertainment and self-enhancement. Screven outlines this situation as follows:

There is nothing wrong with free exploration and social interaction in exhibitions. There are very important natural elements of human behavior in museum environments and *probably are among their major attractions*. But if exhibitions are to serve educational purposes, these features must be *harnessed*. The challenge is to link communication objectives with these intrinsic exploratory, social and recreational interests. (1986, p. 113) [emphasis added]

In this perspective, human behavior that an android such as Data on "Star Trek" would have trouble understanding is lumped together and, to pursue Screven's metaphor, seen as the "baser" part of human nature that must be "harnessed" or "put to good use" in the interest of cultivating the "higher" human behavior of learning "substantive content" or "information-processing."

This model is not only hierarchical in terms of visitor "motivations" or drives, but also in terms of the social relationship between the curator, a content expert with specialized knowledge stored in his or her head, and the visitor, a fun-seeking novice whose head needs to be filled with new ideas, if only one can distract him long enough to "get through" the annoying filter of socializing, dreaming, status seeking, emoting, and the like; (cf. Karp and Lavine 1991; MacDonald and Alsford 1989). It is no wonder that, with this the model implicit in the majority of evaluative studies, "the interaction between viewer motivation, exhibit content, the museum environment, and visual design are complex and poorly understood by both psychologists and exhibit planners...[and] better information must be obtained about how viewers respond to and learn from the design and content of displays" (Screven 1986, p.118-19). As Miles and others have noted, most museum visitors are "casual" ones, who spend only a few seconds at each display and are "concerned with the consummatory rather than the educational use of knowledge, i.e., they are using it for pleasure and for passing the time in a largely passive way." (Miles 1987, p. 121). Before museums can accomplish their acknowledged educational goals, they "must above all begin to pay attention to their visitors' concerns, interests, expectations and so on, and make an effort to speak to them in a familiar language." (Miles 1987, p. 121)

This reorientation requires a radically different model of human behavior and society than the information-processing and information-transferring one. Carr (1990), drawing upon Polanyi's concept of "indwelling" and Jerome Bruner's narrative psychology, uses the metaphor of the museum as an

evocative text, a private mnemonic environment that summons a range of memories, thoughts, and meanings—images like those we find surviving in diaries and letters, in accumulated snapshots of enduring experiences, in fragments and allusions. The user carries permanent, evolving texts and an array of private captivities: visions, dreams, encounters without language. In the presence of objects we go beyond objects to recognize our continuous histories. Out of these continuities we articulate silent hypotheses, and as we gain new information, we alter them. Each new encounter in the museum means the

revision of one life: new understandings, even drastic or unexpected reorganizations expand the bursting backpack we carry. The museum is a place for the dreamer to see private dreams in public places, deep memories framed anew. The content of the museum has to do with choices and desires, with things that please the senses, satisfy values, and explore human fears. In museums we are living examples of Jerome Bruner's idea that 'perceiving takes place in a tuned organism' (Bruner 1973, p.92). The museum evokes those strands of experience and memory that human beings use to attune themselves, to remember themselves, to remember themselves as actors framed by the continuities in their lives. (1990, p. 368-69)

Learning in a museum must be *re-creation* "to create anew, to restore, refresh" (Quinn and Bedworth 1987; cf. Zunzunegui 1990), addressing on an equal footing the intellectual, sacred, and social needs of visitors (cf. Graburn 1977; Kelly 1987; MacDonald and Alsford 1989) rather than catering primarily to cognitive needs. Evaluation must involve investigative techniques that can provide what Clifford Geertz calls a "thick description" of visitor experiences in museum settings.

A SOCIOSEMIOTIC APPROACH TO BEHAVIOR IN MUSEUMS

Semiotics, like other human sciences, has been caught up in just such a shift from a positivist to interpretivist approach to human behavior. Culture is now viewed not as a stock of information transmitted passively from generation to generation, but as sets of strategies for transacting or negotiating meanings and thereby resolving dilemmas. Renouncing the Durkheimian split noted above, what is sought is the elaboration of a "theory of active social actors, located in time and space, reflexively and recursively acting upon the world in which they live and which they fashion at the same time" (Lave 1988, p. 8). Culture and cognition are seen as two aspects of the same phenomenon. Cognitive processes are culturally constituted phenomena.

...the central concept of a human psychology is *meaning* and the processes and transactions involved in the construction of meanings.... This conviction is based upon two connected arguments. The first is that to understand man you must understand how his experiences and his acts are shaped by his intentional states, and the second is that the form of these intentional states is realized only through participation in the symbolic systems of the culture. Indeed, the very shape of our lives—the rough and perpetually changing draft of our autobiography that we carry in our minds—is understandable to ourselves and to others only by virtue of those cultural systems of interpretation. But culture is also constitutive of mind. By virtue of this actualization in culture, meaning achieves a

form that is public and communal rather than private and autistic. (Bruner 1990, p. 33)

One of the byproducts of this shift in semiotics is the growing emphasis on meaning as a socially-situated process determined not by the code which enables a sign to stand for an object so much as the relationship of the sign to other signs which also represent that object, that is to the sign's interpretant signs. This Peircean view of semiosis "allows for a much more hermeneutic concept of interpretation, where meaning develops out of a continuing translation of the sign" (Liszka forthcoming, p. 18). As a pragmatic theory of semiosis, the intentions and problem-solving goals of sign users also become an indispensable part of the semiosis.

This view of semiosis as dialogic and interpretive implies a dynamic concept of communication, contrary to that of Ferdinand de Saussure, which, "based on Locke's theory of telementation,... was simply the transference of thoughts from one human mind to another by a process of decoding and encoding." (Liszka forthcoming, p. 18). Although Saussure saw semiotics as a part of the social sciences, he conceived of culture as a pool of *knowledge* and thus, in effect, did away with any serious attention to the socially situated nature of signs and communication. Over the last dozen years, there has been such a vital cross-fertilization of ideas between the Saussurean, code- and language-centered semiology and the pragmatic, interpretive, Peircean-inspired semiotics that it would be difficult to find any semiotician today who did not believe in the necessity of developing an interpretive, pragmatic sociosemiotics. This has been especially fruitful for the study of marketplace behavior and communication, resulting in a flowering of hybrid studies combining sophisticated narrative and rhetorical analyses not just of texts (in the broad sense this term has in semiotics) but of consumer responses to them. Pragmatic semiotic studies have ranged over a wide spectrum of consumer contexts—including subways, banks, museums, libraries, gift shops, swap meets, and hyperstores— and message forms—including print ads, TV commercials and programs, clothing catalogs, packaging, a wide range of consumer products, magazines, and newspapers, to name a few (see, e.g., Bachand and Cossette 1988; Defrance 1983, 1986, 1987, 1988, forthcoming; Floch 1988, 1990; Fouquier 1984, 1986, 1988, forthcoming; Fouquier and Véron 1985, 1986; Péninou 1972, 1983, 1988; Semprini 1990a, 1990b, forthcoming; Véron 1983, 1985, 1989; Véron and Levasseur 1989).

MODEL OF MESSAGE RECEPTION

The model of message reception chosen for the current study of museum visitors takes reception to be a form of social action and self-expression, rather than passive re-action. Summarizing this model for marketing scholars, Fouquier writes:

Reception hinges on a series of partial synthetic moments, namely *figures*. These

objects, which thus become the fundamental subject matter of analysis, are composite units, *arranged in chain-fashion*, partially or wholly combining three links, namely an operation, a motif and a resonance. These links need to be seen as experiential qualities of various kinds (subjectively felt experiences, cognitive contents, emotions, etc.), partly generated by the structure of the work, and partly by the receiver. Figures may differ in 'length', they may be more or less complete (some have only one link, others display all of them). These links are interlinked into a *dynamic*: a particular aspect of the work may stimulate a specific reading operation, which in turn triggers a given resonance, depending on some internalized disposition, and in the process the text is compared or contrasted with another particular text, which in turn gives rise to a judgement based on some internalized norm whose subsequent effect is to direct the attention — and hence the motifs one perceives — to this or that aspect of the text, and so on....subjects clearly hierarchize the different components of the figures that they experience...[and] the link that is stressed [is called] the *theme* of the figure. (1988, p. 341-42).

Operations may be behavioral, perceptual, or cognitive. *Motifs* are plastic (the physical, perceptual space of reception), worldly (the fabricated, sometime fictitious space of the message), or pivotal (a space where the receiver observes the worldly space from his or her own particular vantage point and takes a position vis-à-vis the message). *Resonances* include emotions, evocations or associations, cognitions, and incitements. The system of internalized skills, or *habitus*, against which reception of a particular message takes place includes: "a *repertoire* of forms, themes, knowledge, a background culture with the aid of which receivers classify, nurture, compare and complete what they read..."; *centers of interest*; *postures* or attitudes toward certain kinds of messages; and "the individual's *horizons of expectation*, personal 'canons,' or system of preferences, tastes, expectations with regard to forms, styles, languages, stories, rhythms..." (Fouquier 1988, p. 338). Reception, in this conception, is a "process of confrontation...a ceaseless process of comparison" between the message and [the] *habitus* (Fouquier 1988, p. 338).

OPTIMAL EXPERIENCE AS A PART OF *HABITUS*

One of the first goals of the study of visitor experiences in the Passport to the World gallery of the Indianapolis Children's Museum was to identify major variations in this confrontational process of interpreting gallery exhibits. This would include a description of visitors' expectations concerning optimal experiences, an important schema for structuring the gallery visit. The reception of the gallery's "messages" takes place within the lived

narrative of the visit itself, which can be looked upon as a form of social drama in which visitors seek out, as best they can given the particular circumstances of their visit, what Csikszentmihalyi calls "optimal experiences":

The optimal state of inner experience is one in which there is *order in consciousness*. This happens when psychic energy—or attention—is invested in realistic goals, and when skills match the opportunities for action. The pursuit of a goal brings order in awareness because a person must concentrate attention on the task at hand and momentarily forget everything else. These periods of struggling to overcome challenges are what people find to be the most enjoyable times of their lives. (Csikszentmihalyi 1990, p. 6)

In a crowded museum gallery, the achievement of optimal experience requires a willing plunge into the concentrated drama of personal (or, it should be emphasized, *interpersonal*) struggle within the context of a particular display, no easy task given the many sources of distraction or obstacles to an unimpeded approach to and interaction with an exhibit. Like any form of dramatic action, attention must be focused on the logic of the drama itself, with other interpretive schema, such as that of the ritualistic "doing" the museum and gallery, which the vast majority of museum visitors bring to their visits (Falk 1981), temporarily shifted into the background (which does not mean that they do not help to shape the optimal experience). (In fact, for want of additional pages, this paper is arbitrarily abstracting a visit to the Passport to the World gallery from the other events in which it is embedded, such as the visit to the rest of the museum, other activities planned for a Saturday afternoon, etc., all of which contribute to the meanings created for that gallery. See Umiker-Sebeok 1991a for a full discussion of this process of the intermeshing of narrative schema.) Optimal experience is a form of dramatic narrative, obeys the laws of narrative logic, and therefore different expectations about it may be described through application of narrative analysis. Since visitors organize their experiences in terms of stories, narrative analysis is an important part of this, or any, sociosemiotic study. The form of analysis used in this study, as a part of the description of message reception patterns, is described most succinctly in Courtés 1991. On the importance of narrative to the study of human behavior and for research interview analysis, see, e.g., Bruner 1990; Mishler 1986; Sarbin 1986.

THE TEMPORAL STAGES OF RECEPTION

A final layer of framing involved in visitor reception of the gallery is the temporal sequencing of the visitor's interaction with displays. Objects are assigned a privileged place in a sociosemiotic model of consumer interpretation since they are not defined, following McCracken's suggestion, as a mere "diacritic of culture" but powerful rhetorical devices

due to their concreteness, use as synecdoches, economic value, ambiguity, and ability to persuade below a conscious level (McCracken 1988). Meaning and identity are created as much through what George Herbert Mead (1934) called the "collapsed act of the artefact" as through interaction with generalized others:

As we interpret self from the perspective of the other, so we also take the perspective of the object. As we interpret the group from the position of the generalized other, so too we define our acts from the perspective of objects generalized (one might say contextualized) into a setting. As generalized, the setting becomes a constellation of acts collapsed into symbols which, like the generalized other, inform our actions and give them their particular character. (Richardson 1989, p. 174).

The three stages of Mead's collapsed act of the artefact provides a simplified model of the sequence of steps through which a consumer interacts with exhibits and transforms them into significant symbols. In the first, *perceptual*, stage, the visitor must perceive an invitation to engage with some possible world. In this future-oriented phase, what Peirce (1931-66) called "firstness" is dominant, with the object's iconicity signalling various possibilities for interpretation and action.

Assuming that the consumer accepts the invitation to engage the world represented by the object, the second, *manipulatory* stage is marked by the interaction of the consumer with the object, during which he or she experiences its "otherness." Here, in this emergence in the present, "secondness" reigns, as the consumer explores the indexical aspects of the exhibit, its links to "reality" and existence.

As a result of his or her preceding acts of interpretation, in the third, *consummatory* stage the consumer translates the exhibit into a symbol, or conventional sign. In this, past-oriented phase, "thirdness" (habit, law, or rule) predominates. The symbols that emerge in this third phase are the stuff of the visitor's *habitus*, and inform future acts of interpretation.

METHODOLOGY

In the study of the Passport to the World gallery of the Indianapolis Children's Museum, 41 visitors were randomly chosen from among visitors approaching the gallery. Ranging in age from 5 to 75, 21 subjects were male, 20 female. They were asked to visit the gallery in any manner that they felt was natural for them and their partner(s). They were then tracked through the gallery, with an observer noting on a floorplan where they went, paused, and stopped, as well as what they did and said. When visitors indicated that they had completed their visit to the gallery, they accompanied the observer to a nearby room where they were interviewed. The first part of the interview consisted of survey questions eliciting demographic and lifestyle information about them and their families as well as queries concerning their

overall visit to the museum. Subjects were then asked to "draw a map" of the gallery on a plain, 8 1/2 by 11 inch piece of paper. Following this, the observer initiated an open-ended interview, based on the model presented in McCracken 1988, which was structured around the visitors' narrative account of their trip through the gallery.

A first, sociosemiotic analysis was made of the maps and interviews. This included a structural-generative analysis, described in detail in Courtés 1991 and Floch 1988, 1990, for verbal texts, and in Semprini forthcoming, for the maps. A pragmatic discourse examination of these texts according to a model described in Fouquier 1988 was also made. For a more complete description of the methods used, see Umiker-Sebeok 1991. On the basis of these analyses, visitors were classified into four major groups, representing four primary reception themes or strategies, as described below.

With this classification in hand, each of the 54 permanent gallery exhibits was analyzed according to which types of visitors were attracted to it and which were not, and whether or not it provided different types of visitors with something approaching an optimal experience (as judged by their descriptions in interviews). Using the same sociosemiotic methods used for the analysis of interview narratives, a cross section of exhibits of varying degrees of attractiveness and success in providing optimal experiences was analyzed in detail in order to provide an explanation of visitor interpretations and experiences in terms of the three stages of the collapsed act. In other words, how successful were exhibits in attracting one or more groups through the three stages of interaction, and why?

RESULTS

The 54 permanent exhibits showed a wide range of levels of attraction and engagement, from those at which none of the visitors in the study stopped to one where 73% stopped. Less than half (24) of the permanent gallery exhibits attracted 50% or more of one or more types of visitor (as described below). Of these, twelve attracted 50% or more of only one of the four groups, five 50% or more of two groups, two 50% or more of three groups, and five 50% or more of all four groups. In all, only 10 exhibits attracted 50% or more of all visitors. Thus, most of the gallery permanent exhibits appear to have lacked the semiotic structures required to engage visitors, especially two groups (utopian and pragmatic), which constituted 61% of the visitors. Only 10 of the 54 permanent exhibits in the gallery attracted 50% or more of all the subjects, and only five provided an experience that might be called one approaching "optimal". 50% or more of the critical group—the smallest of the four groups—found fully 20 exhibits attractive, and the next largest, utopian group, was attracted to 11. The largest, diversionary group was attracted to only 7 exhibits, the next largest, practical group to only 9.

As Csikszentmihalyi (1990) has reported, people can create optimal experiences through a wide variety of activities, and individuals are not limited to one source of such experiences. The same was true in

the gallery under study, where visitors reported peak experiences in interaction with a number of diverse exhibits. On the other hand, from examination of the *habitus* visitors brought to bear on their gallery experiences (described fully in Umiker-Sebeok 1991), it was found that individual visitors tended to employ fairly consistently one of four basic strategies of reception — called pragmatic, critical, utopian, and diversionary —, each of which structures the gallery visit in a different manner. It is assumed that, given the socially-situated nature of all interpretation, a given individual might change his or her strategy in different contexts, depending on a number of variables such as the social relationship he has with his or her companion(s), his or her personality, mood, amount of time already spent in the museum, types of preceding and anticipated experiences in the museum, and so on (see Umiker-Sebeok 1991 for a discussion of these factors).

Figure 1 presents a schematic representation of these four reception strategies are described briefly below.

PRAGMATIC RECEPTION STRATEGY

29% of visitors, ranging in age from 7 to 75 (average age = 21), were classified as relying predominantly on the pragmatic reception strategy. The group was evenly divided between males and females. The average time spent in the gallery was 28 minutes, with visits varying from 6 and to 70 minutes.

For the *pragmatic* strategy, the primary figure of reception is utility, and optimal experience is defined as the efficient accumulation of a store of either new information which can be applied outside the museum setting, or new applications for existing facts. Utilitarian values are a key part of this strategy, with the gallery as a type of (work)shop for the acquisition of discrete skills or ideas.

For this group, the first, perceptual stage of interaction with an exhibit must be marked by the perception of the potential for the optimal experience, defined, again, as the acquisition of a useful idea or skill. Not only this "content" must be present, but it must be communicated in a way that is efficient and promises a timely manipulative stage, for this group of visitors will not "invest" time in interacting with an exhibit unless they can judge, during the perceptual stage, that there will be a concrete "payback" for spending time at the display. The musical displays in the gallery, for example, attracted this group by promising experience in learning to play a tune or communicate through music, an underwater scene through providing information about solutions to pollution, or a storytelling performance by furnishing examples of the skill of storytelling.

During the second, manipulatory stage, this group favors a rational verbal and visual presentation of easily-identified "information" or training in a practical skill, with emphasis on concrete problem-solving applications. The experience at this stage should be challenging, but with easy-to-reach and easy-to-operate exhibit elements. This group likes to engage in practice aimed at achieving a defined goal,

or manipulations which result in the concrete application of information to problem-solving.

If the first two stages have been successful, the pragmatic visitor will come away with the satisfaction of knowing that he has acquired a new piece of useful information, a new skill with which to solve the problems presented by the world. The experience of the exhibit will have become, within their narrative schema of the trip to the museum and gallery, a generalized symbol of a rational, utilitarian approach to life, with the visitor playing the hero of the drama and the museum the role of helper-instructor.

While space limitations make it impossible to describe in detail the interactions between the features of exhibits and their reading by different groups (for this, see Umiker-Sebeok 1991), we may briefly summarize some of the dominant elements of this type of reception framework (see Fouquier 1984):

The preferred image of the *message sender* (called the *constructed message sender*) (i.e., the positions the sender attributes to himself and including the relationship between the sender and what is said) is that of a experienced (but not necessarily professional) instructor.

The preferred image of the message receiver (called the *constructed receiver*) is that of problem-solving learner or apprentice. The preferred figure of *enunciation* (specifying the relation(s) (e.g., pedagogical, ludic, persuasive) within the message between the constructed sender and the constructed receiver) is pedagogical. The preferred figure of the world as represented in the message (i.e., *the constructed world*) is that of a reality to be controlled through the application of appropriate methods. The preferred figure of *modalization* (representing the type of relationship existing between the constructed sender and the reality about which he/she speaks) is that of a person who has mastered control of a part of the world. The preferred figure of *implication* (characterizing the relations that the constructed receiver is supposed to establish with the reality being shown in the message) is that of mastery of means-ends relationships with the world. The preferred figures of *expression* (translating the relationship that the sender maintains with his own message as a formal product (e.g., as the implied author, paid presenter of a message authored by someone else, etc.) is that of implied author or a professional communicator talking about someone else's mastery. The preferred figure of *perception* (constructing the relations between the constructed receiver and the message as an ensemble of signs, e.g., active vs. passive message reception) is that of passive receiver of information but in the interest of actively using the information outside the museum context. The preferred figures of *representation* (including the different "manners" or "forms" the message adopts in order to present reality (e.g., direct vs. indirect, as narrative or analytical discourse) are direct, factual descriptions and demonstrations with possibility for repetition by the visitor.

FIGURE 1
Semiotic Square of Major Interpretive Strategies in the Passport to the World Gallery

Gallery as Classroom (Work)shop

"Useful" Information
Ease of Interaction with Displays
Ease of Moving through Gallery
What can I do with this?

Gallery as Hall of Mirrors

Self-exploration through Interaction
and Imagining "The Other"
Friendly volunteers
What can this say about me?

utilitarian values

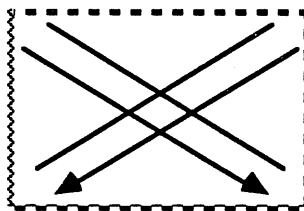
existential values

PRAGMATIC



CRITICAL

non-existential values



UTOPIAN



DIVERSIONARY

non-utilitarian values

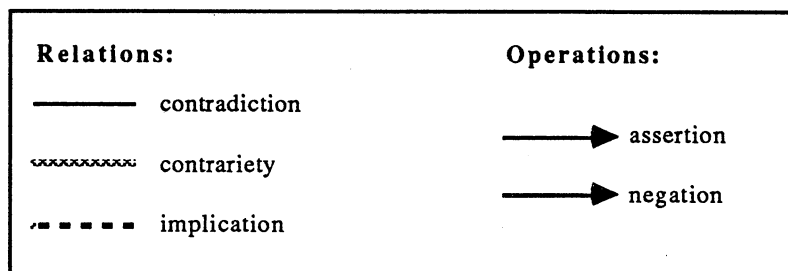
Aesthetics of Displays
Features of "Collection"

Systems of Classification
What can be thought about this?

Sheer enjoyment ("fun")
Physical stimulation
What can I feel about this?

Gallery as Museum

Gallery as Amusement Park



CRITICAL RECEPTION STRATEGY

17% of visitors, ranging in age from 10 to 49 (average age = 28 years), were classified as relying predominantly on the critical reception strategy. This was the only group where males constituted a significantly greater percentage (71%) than females. The average time spent in the gallery was 40 minutes, with visits ranging from 10 to 74 minutes.

The *critical* visitor favors the acquisition of ideas, which are valued for their form or place in an abstract order, whether or not this proves "useful" in any concrete way. The visit is evaluated in terms of non-existential values as well, as a principle of organization or abstraction rather than as a tool. For this form-, collection- and classification-oriented group, visits tend to be long and thorough in comparison with those employing other strategies. The metaphor of the gallery as a museum might evoke the interpretations of those employing this strategy. The optimal experience for this group is the production of new models of the world, either in terms of form or content.

During the first stage of interaction with an exhibit, the critical visitor is less concerned about the efficiency of the interaction than that it will involve an intellectual or aesthetic challenge. While the practical visitor might judge the musical displays on the basis of its being identified as a tool of communication or for the opportunity to learn to play a tune, the critical visitor was more likely to be attracted by the promise of identifying the geographical source of the music, the comparison of different aesthetic styles of the music, or for appreciation of the collections of musical instruments (with collections seen as objectival forms of classification). This first stage need not promise an efficient, economical approach to the optimal experience, but it must promise the challenge of ordering information in ways this group finds attractive.

During the second stage of interaction, the task of identifying a "proper" order is more important than the amount of time it takes to do so, within the constraints of the optimal experience as involving "reasonable" tasks, and so visits by this group on average lasted much longer than those of other groups. Critical visitors often spoke as if from the vantage point of a curator rather than that of a visitor, as they tried to relate particular exhibits to the general themes of the gallery in order to divine the overall schema of knowledge they assume the staff intended to communicate. Their manipulations of the exhibits tend to be thorough, doing most of the things that the exhibit suggests they do, including reading long written messages (a rare occurrence outside this group).

If the first two stages have been successful, the critical visitor will come away from an exhibit with a sense of satisfaction in having mastered a subset of knowledge, another chapter of a textbook, and the exhibit has become a generalized symbol of that knowledge as well as the visitor's skill in conquering its subtleties. The ideal visitor in curators' minds, the

challenge for this group is to assimilate the order imposed by the curator, rather than finding a person meaning.

The preferred image of the *message sender* is that of a professional lecturer. The preferred image of the message receiver (*constructed receiver*) is that of expert. The preferred figure of *enunciation* is pedagogical. The preferred figure of the *constructed world* is that of a reality to be understood or modelled. The preferred figure of *modalization* is that of someone who organizes and focalizes information about the world. The preferred figure of *implication* is that of evaluation. The preferred figure of *expression* is that of professional communicator. The preferred figure of *perception* is that of active organizer of information. The preferred figures of *representation* are the direct statement of rules or collections that exhibit logical system of classification.

UTOPIAN RECEPTION STRATEGY

22% of visitors, ranging in age from 8 to 40 (average age = 22 years), were classified as relying predominantly on the utopian reception strategy. This was the only group where females constituted a significantly greater percentage (67%) than males. The average time spent in the gallery was 24 minutes, with visits ranging from 7 to 42 minutes.

The *utopian* strategy defines the visit in terms of its expression of existential values, with the optimal experience involving an imaginative self-exploration, preferably as a joint achievement with significant others, either companions or friendly gallery workers. While those employing this strategy of interpretation as the gallery visit becomes an act of self-expression, including a kind of group expression in which the visitor and his or her companion are intent on an expression of their social relationship. The metaphor of the gallery as a hall of mirrors is appropriate for this group, and the experience of the gallery itself becomes one of the values sought in the utopian narrative schema.

During the first stage of interaction with the exhibit, the utopian visitor requires a promise of a reality and challenge that can be approached through conjoint effort with his or her companion(s) in the gallery and/or one that offers self exploration through interaction and imagining "the other". Musical exhibits were attractive to the utopian visitor, for example, if they promised a shared listening or communal dancing experience, the possibility of recalling significant, music-related events in the visitor's life, or the exploration of ethnic identity. An underwater scene opened up the possibility of imagining a new and different "world" and thus adding to their stock of experiences with which they may shape their identity through identification of their personal reactions to it.

The manipulative stage for the utopian visitor must provide indices of the visitor's self, and the challenge becomes one of achieving the recall of memories or the creation of self-reflective "other worlds" through acts of imagination. Manipulations of exhibits by this group are quite varied, in keeping

with the conception of the gallery visit as a form of self-expression rather than an assimilation of the messages intended by curators. This group, more than any other, engages in the joint manipulation of exhibits.

If the first two stages have been successful, the exhibit has become a generalized symbol of the social identity of the visitor, who plays the hero in a story about extending the bounds of the imagination and self-awareness, the visitor's companions and volunteer workers in the gallery being cast in the role of helpers-communicators.

The preferred image of the *message sender* is that of an empathic facilitator, professional or non-professional. The preferred image of the *constructed receiver* is that of sensitive companion. The preferred figure of *enunciation* is inspirational. The preferred figure of the *constructed world* is that of possible worlds to be experienced. The preferred figure of *modalization* is that of someone who explores possible worlds. The preferred figure of *implication* is that of increased awareness and appreciation. The preferred figure of *expression* is that of personal communicator. The preferred figure of *perception* is that of active beneficiary. The preferred figure of *representation* is that of direct, dramatic discourse.

DIVERSIONARY RECEPTION STRATEGY

32% of visitors, ranging in age from 5 to 51 (average age = 17 years), were classified as relying predominantly on the diversionary reception strategy. The group was evenly divided between males and females. The average time spent in the gallery was 28 minutes, with visits ranging from 13 to 72 minutes.

The *diversionary* strategy stresses the non-utilitarian values of the gallery as an amusement park. With sheer enjoyment as the kind of optimal experience sought, the visit is judged according to cycles of individual stimulation. This is the strategy most antithetical to that of most curators, but, at least in this study, characterizes the largest group of visitors.

Diversionary visitors are attracted to the promise of new physical or emotional stimulation. Musical exhibits were alluring to the diversionary visitor, for example, if they offered a chance to move rhythmically, sing, or dance rather than as a means of accumulating new ideas about the world or learning something new about himself. It is not necessary for these experiences to be shared with others. An underwater scene was interesting for its promise of a chance to crawl around under a dock and for the thrill of being in a dark, slightly threatening place.

The diversionary visitor is the least likely to practice the kind of exhibit manipulations desired by museum staff. While the critical visitor seems to be most interested in rules and laws that can be developed from the concrete experiences of the manipulative stage, and the pragmatic visitor is drawn to the practical "objects" or tools he or she can take home as a result of the gallery visit, the diversionary visitor, like the utopian visitor, is interested in the experiences of the gallery for their own sake rather

than as paths to the acquisition of something lasting. Unlike the utopian visitor, however, who is constantly re-creating him- or herself through these experiences, the diversionary visitor seems to take fun as simply a sign of itself. The challenge of this stage is to engage in physical experiences of one sort or another, and the forms of manipulation are more or less limited to such experiences. This stage tends to be shortest for this group, since the manipulation will continue only while the "fun" lasts.

This means that for this group the third stage is marked by the creation of the exhibit as a generalized symbol of action. Dancing is a sign of participation in dancing, drumming a sign of drumming, and so on. The visitor has become the hero in a story where success is marked by "getting to do or feel" something enjoyable despite whatever obstacles might have been put in his or her path. The fun is an end in itself, the thing of value to be achieved by the narrative contract.

The preferred image of the *message sender* is that of an entertainer. The preferred image of the message receiver is that of someone who is the beneficiary of the message (i.e., the experience). The preferred figure of *enunciation* is that of entertainment. The preferred figure of the *constructed world* is that of disconnected clusters of activities and spectacles. The preferred figure of *modalization* is that of professional entertainer. The preferred figure of *implication* is that of entertainment. The preferred figure of *expression* is that of professional organizer. The preferred figure of *perception* is that of active participant in activities and spectacles. The preferred figure of *representation* is that of nonverbal enactments of activities and scenes (i.e., "spectacles").

CONCLUSIONS

As curators are well aware, and this study demonstrates for the one gallery in question, there are a myriad of ways in which a display can fail to engage a visitor. In Umiker-Sebeok 1991, sociosemiotic analysis of a number of both successful and unsuccessful exhibits documents a variety of common errors. These flaws can usually be traced to a failure to take into account the *habitus* of different visitors, especially their needs concerning achievement of optimal experience. This failure can be total, affecting all of the figures mentioned above as well as many others which space did not permit us to mention. More commonly, only a portion of the message elements are a problem. Sometimes it is a question of adequately expressing the *habitus* of one or more groups during the first stage of the collapsed act of the artefact but violating it in the second stage.

Visitors *act upon* the museum, dynamically building meaningful "spaces" in which to move and maneuver to their own advantage. Exhibitors must understand these spaces in all of their complexity if they are to do more than merely try to force their own (typically pragmatic or critical) predilections on reluctant visitors, usually with unwanted results. Different reception strategies stem from as well as construct different perspectives on the world. It is not enough to clarify what these perspectives are, for

curators wish also to know how to engage the visitor who approaches with one strategy and invite him or her to adopt another. A clever invitation to adopt an alternative role must start from where the visitor starts, and can only "propose," never impose a new perspective. This is the primary challenge for museum staff, aided by a more highly developed sociosemiotic habitus.

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Parallels Between Hypnotic Suggestion and Persuasive Marketing Communications: Insights for New Directions in Consumer Communications Research

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ABSTRACT

Hypnotic phenomena, especially suggestions and related waking state phenomena in everyday life, offer significant parallels to the effects of persuasive marketing communications. These parallels are developed in terms of consumers' states, roles and a stimulus-state-response model. Research implications are offered and finally a conclusion regarding the relative position of consumer research to hypnosis research is discussed.

A number of writers have presented views (either their own or others) which find in comparing the reputed powers of persuasive marketing communications, particularly advertising, to hypnotic suggestion that they are similar in effect (Fromm 1976; Packard 1957; Pollay 1986). But is this point of view valid and if so, in what ways do these two communications phenomena function similarly? This paper seeks to explore these questions by discussing the parallels as well as the dissimilarities between the two phenomena and to provide a framework for assessing them.

COMPARING PERSUASIVE MARKETING COMMUNICATIONS AND HYPNOTIC EFFECTS

In comparing the effects of persuasive marketing communications to hypnosis, it is appropriate to consider hypnotic-like states which reflect the fact according to Hilgard (1965, p. 312) that "there are many continuities between experiences outside hypnosis and those inside." Both hypnotic and hypnotic-like states involve the relative dissolution of everyday cognitive reality and a particularly focused orientation on a small range of preoccupations (Shor 1960). Similarly, persuasive marketing communications may be said to be 'hypnotic-like' in that they are said to involve focused absorbing states and/or heightened suggestibility (Hirschman 1985; Shor 1960). Persuasive marketing communications and hypnotic phenomena may also be viewed as part of a larger hierarchy of states involving variations in focus along a continuum which ranges from total absorption in a particular focus to being completely awake and aware of one's surroundings. Moreover, hypnotic-states have been found to involve conformity, role-playing, and impulsivity, i.e. in playing the hypnotic subject (Hilgard 1965; Sarbin and Coe 1972; Shor 1960), characteristics also found in relation to persuasive marketing communications and other consumer behavior phenomena (see Venkatesan (1966), MacInnis and Jaworski (1989), and Stern (1964), respectively). Thus, I expect that the consideration of hypnotic suggestive communications will inform our understanding of persuasive marketing

communications processes and models in several aspects by: (1) focusing on the consumer exposed to a persuasive marketing stimulus as experiencing transformed hypnotic-like states which may render him or her more susceptible to its message, (2) considering him or her as a conscious role player in such exposure, i.e. the consumer reception role, in which s/he has certain personally and socially derived expectations about how to react and behave, and (3) focusing on the relative importance and effect of these two on persuasion, i.e. states versus roles.

From a social psychological perspective, hypnotic-like phenomena may be viewed according to the degree of involvement they reflect with a situation (Sarbin and Coe 1972). For example, Sarbin and Coe note that a supermarket consumer would be at a very low level of involvement relative to a hypnotic subject. In this regard, persuasive marketing communications induced states might be seen as similar to waking states used in hypnotic persuasion experiments to contrast with actual hypnotic states. In one such study which may serve as a potential bridge between persuasive marketing communications and hypnotic phenomena, Malott, Bourg and Crawford (1989) found that that highly hypnotizable subjects generated more favorable thoughts and agreed more with a persuasive message than did less hypnotizable subjects, no matter whether they were in a waking or hypnotic state. Based on this study, it can be hypothesized that high hypnotizability should be positively related to advertising response, other things being equal (cf. Snodgrass and Lynn 1989 for a related discussion and study). It seems likely that an analogue to hypnotizability may exist, i.e. susceptibility to advertising which reflects an individual's capacity or likelihood of becoming absorbed in advertising. This analogue may actually be an intermediate variable between hypnotizability and response to persuasive marketing communications with highly hypnotizable individuals being being more susceptible to such persuasion than less hypnotizable individuals. There also may be more specific hypnotic-like susceptibilities such as susceptibility to ads with sexy models or emotive appeals or susceptibility to particular types of advertising such as television commercials.

SUGGESTION AND THE ISSUE OF INVOLUNTARINESS RESPONSE

So far we have considered persuasive marketing communications as a type of waking state phenomena which nonetheless may possess some hypnotic-like characteristics. Moreover, highly hypnotizable individuals may be more responsive to such communications than less hypnotizable individuals. These ideas lead us to consider the possibility that marketing communications are most related to

hypnotic phenomena in terms of waking state suggestions. Suggestions in general are said to be suggestive because the resulting effects are not thought to be voluntary acts (Weitzenhoffer 1980). Suggestion is the end product of hypnotic processes. A suggestion is a communication (or sequence of communications) delivered to a subject with the intent of bringing about some action (Weitzenhoffer 1989). It provides perhaps the most important link between various hypnotic-like and hypnotic experiences in terms of persuasive marketing communications since the results of hypnotic suggestion have been related to waking state or non-hypnotic suggestions (Weitzenhoffer 1989). For instance, the process of suggestion has been directly identified in the dynamics of the sales situation which may be likened to the effect of asking leading questions to provide particular answers sought by the salesperson and to exclude those not sought (Gheorghiu 1989). As Gheorghiu (pp. 101-102) observes:

The influential process initiated by suggestion, if indeed it is effective, preconceives a confrontation with the rival alternatives... If a suggestion does prevail, then the person concerned does not realize - at least not while responding - that at the same time other possible reactions have been eliminated... Suggestions always offer answers or solutions, so to speak, even when they create (suggest) the problem in the first place. They implicate proffered solutions as the only valid ones. Finally, the suggestions can be considered effective when they are able to eliminate rival alternatives whilst being unnoticed. The directedness which is put into effect in the suggestive situation turns into an unambiguous directedness within the subjects' own cognitive reality.

Weitzenhoffer (1980) further notes that there are waking state suggestions which occur when there is no formal hypnotic process occurring. Thus for instance persuasive advertising communications which affect consumers, especially under conditions of low elaboration and/or involvement (Petty, Cacioppo and Schumann 1983) may be seen as a form of waking state suggestion in which a thought or non-verbal cue is planted in the consumer's mind eventually resulting in purchase or other behavior later or also as a form of 'suggestive communication' in which the receiver of a message must 'read between the lines' or make inferences from the message's context (Fiedler 1989).

However, the degree of involuntariness of a response has been an important issue in suggestion research and the limits and boundaries of persuasion in that process remain problematic (Weitzenhoffer 1989). Weitzenhoffer (1980) notes some individuals will view their responses to suggestions as involuntary while others will take the view that their responses are more voluntary. Moreover, many people will probably be unwilling to admit that they made an involuntary response to persuasive marketing

communications or even be able to articulate or comprehend how they could make such a response. Furthermore, they might build elaboration around involuntary responses which obscure their real response. For example, Janiszewski (1988) found that a person would respond more favorably to a product if an ad for it was placed on one side of a magazine as opposed to another. Yet, if we were to ask that person why s/he (dis)liked the product, it is very unlikely that s/he would make such an attribution. Thus, suggestions made in advertising and other persuasive marketing communications stem from myriads of possible executional factors (Stewart and Koslow 1989) which may result in some or all of the following on the part of the message receiving consumer: central and peripheral cue processing (Petty, Cacioppo, and Schumann 1983), automatic behavior (Cialdini 1984), unconscious processing (Pratkanis and Greenwald 1988); classically conditioned learning (Allen and Madden 1985), and possibly even subliminal processing (Moore 1988). Regarding subliminal stimulation, it should be noted that its effects are not necessary for advertising suggestion to occur and thus the general consensus regarding its lack of positive marketing effects do not detract from our argument here. It is likely, in fact, that most, if not all, advertising suggestibility effects occur in response to directly perceivable phenomena, such as a central message point or a peripheral cue, processed more or less consciously, rather than in response to some covert cue deliberately embedded by an advertiser.

However, the concept of automatic behavior bears more discussion in that there are many tacit or scripted rules which consumers act upon and which those who understand them may use to manipulate others (Cialdini 1984). There are certain mechanistic, ritualistic patterns which comprise what Cialdini calls a "trigger feature." Likewise suggestion has been called the "potential trigger of responses." Thus trigger features in advertising and other marketing contexts as well (e.g. the sales situation) may be seen as suggestive mechanisms. Triggers are usually peripheral cues (e.g. a sexy model) which stimulate favorable responses to ads. However, even central cues may serve as trigger features. For instance, the acceptance of a central message may in turn trigger greater receptivity to peripheral cues and lead in turn to a favorable response to an ad.

NATURE OF HYPNOTIC/HYPNOTIC-LIKE STATES

Another important issue concerns whether hypnotic states are distinctive psychophysiological or altered states of consciousness or whether they are social psychological phenomena in which people engage in role playing, i.e. taking on the hypnotic subject role (Sarbin and Coe 1972). A compromise position on these views has been offered which suggests that some people respond to hypnotic suggestion by taking an active role while others respond more passively, i.e. allowing things to happen to them (Coe 1978). Hilgard (1985) provides another view which, involving the idea of

dissociation, he believes can account for differences in both hypnotic induction and "waking hypnosis." Such dissociation he finds to be amnesic in that there are various gradations of memory which occur in the hypnotic process and which can be explained without resorting to some altered state of consciousness model. Relatedly, it has been suggested that response to hypnotic suggestion involves two potentially dissociative parameters which need to be considered: (1) a respondent's skill or capacity for employing imagination, and (2) the believability or credibility a respondent has concerning the hypnotic situation and applies to any particular suggestion (Sarbin and Coe 1972). In a similar fashion, McGuire (1989) suggests that susceptibility to social influence involves a compensatory tradeoff between two compliance mediators: (1) comprehension (equivalent to imagination) and (2) agreement with the message (equivalent to believability). Assuming as he does that both are the function of a personality trait, such as intelligence or self-esteem, persuasion and/or behavioral compliance will vary negatively with agreement, since a variable such as intelligence reduces gullibility, and vary positively with comprehension, since intelligence facilitates comprehension. With respect to marketing communications, we can hypothesize that individual difference variables (e.g. demographics, beliefs toward advertising in general (Andrews 1989)) along with situational variables (e.g. attitude toward any particular ad, being in the market for a product) parallel the social psychological role-taking perspective on hypnotic effects. Indeed we should consider framing advertising response issues in terms of the dual model of imaginative capacity and credibility.

At the same time, altered state effects as indicated by distinct psychophysiological reactions cannot be ignored. For example, research in both the fields of hypnosis (e.g. Pagano, Akots and Wall 1988) and advertising (e.g. Rothschild, Hyun, Reeves, Thorson and Goldstein 1988) have investigated and turned up some brain laterality effects. Perhaps most intriguing was the recent study of Olson and Ray (1989) which found brain wave response to television commercials involved correlated alpha and beta waves, a finding which contradicted previous beliefs that the two had a reciprocal relationship. This finding suggests in consonance with hypnosis research in which both attention and relaxation occur together (Edmonston 1981) that there may be psychophysiological state parallels between response to at least some marketing communications and hypnotic ones. However, to my knowledge, no one has yet attempted to actually demonstrate such a parallel and thus the issue remains for future research. At the same time to hypothesize parallels should not be misconstrued as hypothesizing identical reactions. It seems more likely that families of states will be found which integrate persuasive marketing and hypnotic phenomena into a hierarchy or patterns of related but distinctive states.

A MODEL OF THE PERSUASIVE MARKETING COMMUNICATIONS SUGGESTIBILITY PROCESS

Hypnotic suggestibility involves the mechanisms involved in the formation of suggestive focus and its transformation into responses based on this focus (Gheorghiu 1989). In terms of the state processes and the actors involved, both hypnotic suggestibility and persuasive marketing suggestibility may be seen as fitting within the traditional sender-receiver model of communications. Hypnosis involves the communication of a persuasive message by a hypnotist to a hypnotized receiver through a trance. Suggestive response either during the hypnotic session or post-hypnotically represents feedback to the hypnotist and also to the hypnotized receiver if the response is shared by the hypnotist with the subject. Similarly, in persuasive marketing communications, the marketer communicates a persuasive message to a target audience through some medium with feedback coming in the form of attitude change, purchase and the like as in various hierarchy of effects models. Here, we might reformulate the persuasive marketing communications model in the following way:

- (1) *Persuasive Marketing Communication Stimulus*. This stimulus includes the source and medium as constituting what has been called the intended suggestion by Weitzenhoffer (1989) to distinguish it from the effective suggestion, i.e. the former is what the marketer intends the consumer to do while the latter involves the consumer actually doing it. The message and its medium should be viewed as equivalent to the hypnotist as source and medium in the hypnosis process.

With respect to the message, we might consider the notion of direct suggestions which are explicitly made and those which are indirect and alluded to or made by association (Weitzenhoffer 1989). Relatedly Fiedler (1989) has advanced the idea of suggestive communication which involves things inferred from textual cues rather than explicitly stated by the communicator. Such concepts parallel the idea of central (direct) versus peripheral (indirect) routes to persuasion (Petty, Cacioppo and Schumann 1983).

- (2) *Consumer State*. In reaction to seeing and/or hearing a persuasive marketing communication (i.e. receiving and decoding the message), the consumer has some affective cognitive reaction. This state is equivalent to the psychic-somatic effect resulting in hypnosis, most especially perhaps waking hypnosis (Wells 1965) in terms of process-specific somatic responses and the attenuation of external stimuli (Chertok 1986).

(3) *Consumer's Behavioral Response.* The consumer may also make a behavioral response to the persuasive marketing communication (e.g. making a purchase may be seen as a form of effective suggestion as well as representing feedback to the marketer). Such a response may be seen as equivalent to one of two hypnotic responses: (a) the consumer encounters a persuasive marketing communication, has a reaction defined in terms of his/her state, and engages in purchase behavior which may be likened to posthypnotic suggestion -- the suggestion to be acted upon by a subject after s/he awakens from an hypnotic induction (Weitzenhoffer 1989) (e.g. being persuaded by a commercial to buy a product and then later doing so sometimes with the aid of various processes such as sleeper [Hannah and Sternthal 1984], delayed [Burke and Edell 1986] and inoculation effects [Lessne and Didow 1987]), or (b) the person makes an immediate purchase while under the influence of a persuasive communication (e.g. responding to point-of-purchase display) which may be likened to an action taken by a hypnotic subject in response to a hypnotist while the subject remains in trance. An especially interesting case of immediate purchase concerns what Stern (1964) calls "suggestion impulse buying" which occurs when a person sees a product for the first time, visualizes a need for it, and purchases it. While we need not limit ourselves to first time impulse purchases as he did, we might consider nonetheless that Stern points out how the product itself as stimulus along with its packaging serve to communicate in a suggestible manner.

SUMMARY AND RESEARCH IMPLICATIONS

In summary, the process of hypnotic suggestion seems most parallel to the marketing communications process in terms of waking state suggestions which follow a stimulus, state and response model. On the other hand, hypnotic suggestions based on formal trance states probably differ from suggestions induced by persuasive marketing communications in terms of the nature of the reception state and role. However, the degrees of parallel and even possible equivalency between the two methods of inducing persuasive suggestion remains for future research to explore. Thus, the most important general implication of this paper is that consumer researchers should investigate the literature of hypnosis and related suggestive processes to identify phenomena which might help to explain consumer communication and persuasion processes. In support of that point and based on the previous discussion, the following research implications are offered:

1. The most basic level of research involving hypnotic-like effects in marketing communications will involve identifying, assessing and measuring the parallel effects, if any, between various forms of suggestion and those which seem implicated in marketing communications. Such research will involve looking both at potential stimulus, state and behavioral parallels, both psychophysiological and social psychological.
2. A subagenda to the first point would involve looking at various waking state phenomena for suggestibility parallels. For example, how can we model and investigate opinion leadership, sales and service exchange-interactions, and advertising in terms of suggestion as well as looking at non-marketing communications phenomena such as those involved in relationship formation. Moreover, within the various categories of persuasive marketing communications we might expect to find differences in conditions prompting suggestion effectiveness (e.g. central (direct) versus peripheral (indirect) suggestive cues; high versus low involvement situations; various media effects).
3. Consistent with Gheorghiu (1989), we need to discover the dialogical structure consistent with suggestion in advertising, sales etc. so as to better understand the depth of consumers' responses to cues. This suggests theoretical development and related experimental studies in which the language of leading questions is investigated and manipulated so as to be able to discover the tacit rules, if any, which exist. In doing so we can discover what sorts of people best deliver such suggestions, under what conditions and how consumers resist such persuasion.
4. Moderators of the suggestive process should be studied directly in relation to suggestibility as possible segmentation variables. These might include such variables as hypnotizability, trust, credibility, gullibility, intelligence, self-monitoring, self-consciousness, comprehension, style of processing, and absorptive capacities among others (Gould 1991; McGuire 1989).
5. Consistent with MacInnis and Jaworski (1989), research should be conducted which considers the six different levels of brand processing for different effects of suggestion and quite probably the different forms of suggestion which are related to each level. For example, their highest

level of processing involves self-generated persuasions which parallel auto-suggestion and which are very different from mood generated affect which may be present in their lowest level of persuasion. In particular we need to describe the underlying suggestive processes functioning at each level as well as the particular cues which prompt, invite, and stimulate these processes.

6. Apart from establishing parallels, future research will need to assess the effects on the public of the perception of advertising and other persuasive marketing phenomena as being 'hypnotic' since such research ala our experience with subliminal persuasion has a way of attracting public attention. The full implications of this issue are troubling and vexing as discussed in the next section.

CONCLUSION: A DILEMMA AND CHALLENGE

In this paper, we have considered the issues involved in assessing suggestive phenomena in relation to persuasive marketing communications and have provided a framework for future theory development and empirical research. Nonetheless deciding whether and how persuasive marketing communications are in any way hypnotic or provide waking state suggestions to consumers seems to pose a difficult although challenging focus of research attention for consumer researchers. However, there remains another issue to deal with which is just as fundamental and perhaps as vexing as the basic research problem. The social implications of linking advertising and other marketing communications with the concept of suggestion and the process of hypnosis is a disturbing prospect when we consider the fact that the popular imagination has already linked advertising with subliminal factors. Moreover marketers are not likely to be happy having their work so linked and we may conjecture that there may be legal, social and ethical ramifications. However, as researchers we cannot ignore this issue. For instance, as a consumer researcher, I was asked by a researcher in the field of hypnotic suggestibility to contribute a chapter on advertising and suggestibility to a book on human suggestibility (Gould 1991). In researching and writing the chapter, I discovered not only that many people had linked advertising and other marketing phenomena with the process of suggestion but also that a plausible case existed for doing so in terms of research in the field of hypnosis research. Given such studies in the hypnosis field which have compared the effects of communications under waking and hypnotic states, and also the interest shown in my contributing an advertising chapter to a book on human suggestibility, it seems inevitable that research will be conducted regarding the relationship of suggestion and persuasive marketing communications. However, if consumer researchers do not engage in such research and involve themselves

with the topic, then the framing of the central issues and the social agenda concerning such communications will be set by others.

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Context Effects on Social Judgments: Implications for Measurement in Consumer Research

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ABSTRACT

This paper provides a summary of a special topic session that focused on context effects in survey judgments. The papers presented in this session showed conditions under which earlier responses to survey items affected later responses and provided theoretical perspectives to explain these results. The broader implications of this work for consumer judgment processes and questionnaire design were also discussed.

OVERVIEW

There has been a growing interest among survey methodologists about the mechanisms which underlie the survey response process and how contextual factors affect these mechanisms (see Hippler, Schwarz, and Sudman 1988; Jabine et al., 1984; Schwarz and Sudman 1991, in press). This work represents a shift from simply identifying response effects when they occur to attempting to understand the processes that underlie such effects. The development of a substantive theory of the survey response process holds important implications for questionnaire design and survey procedures. In addition, survey judgments are similar to other kinds of judgments and decisions people make on a daily basis. Therefore, this work holds implications for these judgment processes as well.

In both applied and basic consumer research, we often require people to answer questions about brand-related beliefs, attitudes, purchase intentions, and past behavior. In answering such questions, respondents must interpret the question, retrieve appropriate information from memory, integrate this information to form a judgment, and report their judgment in the format desired by the investigator (Tourangeau and Rasinski 1988; Strack and Martin 1987). There is substantial evidence suggesting that earlier survey questions affect later responses (see Schuman and Presser 1981 and Feldman and Lynch 1988 for reviews). The nature of these effects, however, is not well understood. Specifically, we lack an understanding of when information rendered accessible by earlier questions will be used to form a later judgment, and if so, how this information will be used. The papers in this session examine factors which influence the use of accessible information in survey judgments from a variety of theoretical perspectives.

Carolyn Simmons and her colleagues present the results of a test of the Feldman and Lynch (1988) model in a survey context. This model suggests that the use of inputs rendered accessible by the context

will be depend on (1) the accessibility of alternate inputs in the respondent's memory and (2) the relative diagnosticity of these inputs. They focus specifically on how an individual difference variables, prior commitment, affects a respondent's use of specific and general information rendered accessible by the context. The results of a survey about voting intentions in the 1988 presidential elections generally support the Feldman and Lynch model.

Leonard Martin and Thomas Harlow present empirical work suggesting that the use of accessible information is related to the amount of cognitive effort respondents expend in making a judgment. They find that people are more likely to partial out accessible inputs when they exert more effort in answering a question, resulting in a contrast effect. In this case, the type of judgment elicited (self versus proxy) appears to be related to the amount of cognitive effort expended in answering questions.

The work of Barbara Bickart and her colleagues shows how contextual factors influence the use of information about oneself in making judgments about others. Specifically, they show that earlier items can both render inputs accessible and suggest a comparison basis for making a later judgment. The combination of these factors appears to determine the extent to which the self report is used in making a proxy report. Further, these factors also affected the convergence between a proxy report and the target person's self report.

Finally, Norbert Schwarz and Herbert Bless present a comprehensive model of contrast and assimilation effects in social judgments. This model shows how categorization processes influence the emergence of assimilation or contrast effects in survey judgments and can account for effects related to important questionnaire and respondent variables. In addition, this model is also useful for understanding and predicting assimilation and contrast effects that occur in other marketing contexts.

In summary, the four papers together highlight how the response formulation process may vary depending on individual characteristics of the respondent and questionnaire design. Comprehensive models such as those proposed by Schwarz and Bless (in press) and Feldman and Lynch (1988) provide important insight into the measurement process. These models hold important implications for understanding consumer decision and judgment processes as well.

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Context Effects in Proxy Judgments

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ABSTRACT

In many surveys, respondents are asked to answer questions about both themselves (self reports) and others (proxy reports). In this paper, we report the results of an experiment that examines the conditions under which respondents use their self report in making a proxy judgment. The findings indicate that the distance between the self and proxy report and the type of comparison strategy evoked by an earlier question affect both the weight given to the self report and the convergence between self and proxy reports. These results are consistent with a theoretical framework proposed by Schwarz and Bless (in press). Implications for reducing measurement errors in surveys via questionnaire design are discussed.

INTRODUCTION

In consumer research, we often ask people to report about both their own behavior and attitudes and those of other people. Reports about others are referred to as proxy reports. For example, one respondent may be asked to answer questions about the purchase and consumption behavior of all household members. Because household members are likely to be similar on these dimensions, a respondent's self report can be a diagnostic, or useful, input to such judgments.

The purpose of this research is to investigate how contextual factors, such as questionnaire format, affect the use of respondents' self reports in making judgments about their partner. In addition, we examine how contextual factors might affect the adequacy of proxy reporting. Specifically, we examine differences in convergence, which is the correlation between the proxy report and the target person's self report.

After a brief review of the relevant literature, we present the results of an experiment that investigates the effects of two contextual factors on (1) the use of one's self report in making a proxy report and (2) the convergence between reports. These factors include the distance between the self and proxy report and the inclusion of questions intended to evoke a comparison basis for making the proxy report. The theoretical and practical implications of these results are then discussed.

LITERATURE REVIEW

In many cases, summary judgments about respondents' own attitudes and behaviors may not be accessible (Lastovicka and Bonfield 1982). For example, while a respondent may go to a restaurant frequently, s/he may not be able to retrieve the number of times s/he visited a restaurant in the last month simply because the information is not accessible in memory. Therefore, it is unlikely that respondents have other people's global judgments regarding various issues and past behaviors stored in memory. Hence, judgments about others are likely to be constructed on the spot, using inputs retrieved from memory.

Hoch (1987) suggests that when making judgments about others, people can use three kinds of information: (1) their own judgment regarding the topic, (2) the perceived level of similarity between themselves and others, and (3) other relevant information, such as prior conversations or observed behavior. For example, Davis, Hoch and Ragsdale (1986) found that people relied heavily on their own preferences in predicting their spouse's preferences for a variety of consumer products. In addition, respondents appeared to use knowledge about their spouse's perceived level of influence in the purchase decision for the product in answering the question. Finally, Davis et al. (1986) found that couples would often be more accurate if they relied completely on their self report and did not adjust it at all based on other information (see also Hoch 1987). This suggests that when people are similar, a self report is a diagnostic input to a report about their partner. Thus, we might want to investigate strategies to encourage the increased use (or weight) of one's self report when making a proxy report.

Questions placed earlier in an interview have been shown to increase the accessibility of information used to answer a later question (see Feldman and Lynch 1988 and Tourangeau and Rasinski 1988 for reviews). Thus, an earlier self report should render self information accessible and increase the likelihood that the self report is used in answering a later question about one's partner. However, Davis, et al. (1986) varied the order in which self and proxy reports were elicited, and found no effect of question order on the weight given to one's own preference in predicting their partners'.

Earlier questions could also invoke a strategy that respondents may use to answer later items. For example, Menon et al. (1990) had respondents give both self and proxy reports of the favorability of political groups. In some conditions, the proxy report immediately followed the self report, and in other conditions, the items were separated by a series of unrelated questions. In addition, in some conditions a question querying the extent of agreement

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between the couple on political issues preceded the proxy judgments. They found that respondents were more likely to report using their self report in answering the proxy question when it was preceded by the agreement question. This only occurred, however, when the self and proxy reports were queried contiguously. Menon et al. (1990) suggest that the agreement question invoked a comparison-based strategy that resulted in the use of the self report *when it was relatively accessible* (e.g., it had been recently queried in an earlier question).

Our research extends this previous work in several ways. First, previous research has dealt only with judgments about purchase intentions and attitudes. We look at judgments about both attitudes and behavioral frequencies. The latter may be especially important in marketing research, since many market share predictions and forecasts are based on consumer reports of how often they purchase and/or use different products. Second, we consider the effects of invoking other types of strategies on the use of one's self report, such as comparisons to a norm. Finally, we explore the relationship between contextual factors and the convergence between the proxy report and the target person's self report.

HYPOTHESES

In this experiment, we attempted to manipulate two factors: (1) the accessibility of the self report, and (2) the comparison basis used in making the proxy judgment. The key dependent measure was the weight given to the self report in making the proxy report. We expected an interaction between the two manipulated variables on this measure. Specifically, invoking a self-based comparison strategy should only affect the weight given to the self report when it is relatively accessible. When the self report is not accessible, invoking a self-based comparison strategy should not affect the weight given to the self report in making the proxy judgment, because the self report is not accessible to the respondent to make this comparison. Assuming that couples are relatively similar in the queried domains, we expect convergence between reports to follow a similar pattern. Thus, convergence should be higher when the self report is accessible and a self-comparison strategy is invoked. Finally, invoking a norm-based comparison strategy should not affect the weight given to the self report under any condition. This is because the self report is not a diagnostic input to a norm-based comparison.

METHOD

This experiment was embedded in a larger study dealing with the cognitive aspects of proxy reporting (see Bickart et al., 1990, Blair, Menon, and Bickart, in press; and Sudman et al., in press). The survey included questions about a variety of topics, including media usage, consumption of alcoholic beverages, health status, political attitudes, and demographics. Most of these questions were taken from other surveys conducted by major survey research institutions. In this paper, we focus on the four questions shown in Figure 1: (1) TV viewing (TV), (2) beer consumption (Beer), (3) an overall health rating (Health), and (4)

attitudes toward the federal government's drug policy (Drugs).

Telephone interviews were conducted with 201 couples. A standard directory-based random digit dial sample design was used to select households (Sudman 1973). Couples were eligible to participate if they were either married or living together as married. Agreement to participate was secured from both partners before either was interviewed. Respondents were requested to ask their partner to leave the room during the interview, and not to discuss the survey until both interviews were complete. The interview averaged 20 minutes per person.

Two variables were manipulated in the questionnaire. First, the accessibility of the self report was manipulated by the distance between self and proxy questions. In half of the questionnaires, self reports on all topics were obtained before the proxy reports, creating a *buffer* between items (the *buffer* condition). In the remaining questionnaires, the self and proxy questions were obtained sequentially for each topic (*no buffer* condition).

Second, the comparison basis used in making the proxy report was manipulated by the addition of a question immediately preceding each of the items in Figure 1. We refer to this as a "priming" question, as the intent was to heighten the accessibility of certain comparison standards at the time the proxy report was made. As shown in Figure 2, there were three types of priming questions. First, in some conditions respondents were asked to assess the similarity between their own behavior or attitude and that of their partner. In a second condition, respondents assessed the *dissimilarity* between themselves and their partner on the topic. In both cases, the intent of the questions was to evoke the use of a strategy suggesting a comparison to the self report. Because there were no differences on the dependent measures when similarities versus dissimilarities were queried, these conditions were combined (the *Prime-Similar* condition). Third, some respondents were asked to compare their partner's behavior or attitude to "most other people". The intent of this question was to increase the accessibility of a "norm-based" comparison process (the *Prime-Norm* condition). Finally, no priming question was included in the *control* condition. Crossing these variables resulted in a 3 x 2 between-subjects design, with two levels of the distance between self and proxy report (buffer/no buffer) and three priming conditions (control, prime-similar, prime-norm). Treatment conditions were randomly assigned to couples. Because the similar and dissimilar conditions were combined, cell sizes varied between 45 and 105 respondents, although the number of observations included in the analysis of individual items may differ due to nonresponse.

RESULTS

The key dependent variable in this analysis was the weight given to the self report in making the proxy report. It was predicted in the no buffer condition, this weight should be greater in the prime-similar condition, compared to the control condition. In the buffer condition, the weight given to the self

FIGURE 1
Wording of Proxy Questions

-
- T.V.:**
"Last week, about how many hours, in total, did *PARTNER* watch TV from Monday through Friday?"
_____ hours
- Beer:**
"Has *PARTNER* drunk any beer in the past month?"

If yes...
"How many times did *he/she* drink it? Please include every time *he/she* drank it, no matter how little *he/she* had."
_____ times
- Health:**
"Would *PARTNER* say his/her health, in general, is excellent, very good, good, fair, or poor?"
- Drugs:**
"On a scale of 1 through 7, where one is not at all effective and seven means extremely effective, how effective does *PARTNER* think the government's efforts to reduce drug abuse has been?"
-

FIGURE 2
Wording of Priming Questions

	(Dis)Similarities	Norm
TV:	"How alike (different) are you and <i>PARTNER</i> in your television watching habits?" ¹	"Compared to most people you know, would you say the amount of TV <i>PARTNER</i> watches is...?" ²
Beer:	"How alike (different) are you and <i>PARTNER</i> in the amount of beer you drink?" ¹	"Compared to most people you know, would you say the amount of beer <i>PARTNER</i> drinks is...?" ²
Health:	"How alike (different) are you and <i>PARTNER</i> in your concerns about health?" ¹	"Compared to most people who are about his/her age, would you rate <i>PARTNER'S</i> health as...?" ²
Drugs:	"How alike (different) are you and <i>PARTNER</i> in your opinion of the government's effort to reduce drug abuse?" ¹	"Compared to most people you know, is <i>PARTNER</i> more supportive, about the same, or less supportive of the government's efforts to reduce drug abuse?"

¹Response Categories are:
Very much alike (different),
Somewhat alike (different),
Not very alike (different), or
Not at all alike (different)

²Response categories are:
More than average,
About average, or
Less than average

TABLE 1
Regression Coefficients Indicating the Effects of Buffer, Prime, and Self Report On Proxy Report

	TV	BEER	HEALTH	DRUGS
Intercept	.98 ² (.52)	2.35 ¹ (1.09)	-.13 ² (.07)	.07 (.09)
Gender	-2.23 ¹ (.72)	-6.15 ¹ (1.43)	.27 ¹ (.09)	-.11 (.09)
Self	.63 ¹ (.05)	.45 ¹ (.10)	.27 ¹ (.06)	.72 ¹ (.03)
Buffer	.08 (.38)	-.26 (.76)	-.03 (.05)	.12 ¹ (.05)
Prime-Similar	.77 (.48)	1.77 ² (.96)	-.03 (.06)	.02 (.06)
Prime-Norm	-.97 ² (.56)	-.57 (1.08)	-.02 (.07)	.06 (.07)
Buffer x Prime-Similar	.23 (.48)	-.51 (.96)	-.02 (.06)	-.03 (.06)
Buffer x Prime-Norm	-.53 (.56)	.13 (1.10)	.01 (.07)	-.001 (.07)
Self x Buffer	-.04 (.05)	.00 (.08)	-.001 (.06)	-.07 ¹ (.03)
Self x Prime-Similar	.03 (.06)	-.09 (.12)	.08 (.07)	-.01 (.04)
Self x Prime-Norm	.01 (.07)	.06 (.13)	-.04 (.08)	.03 (.05)
Self x Buffer x Prime-Similar	.17 ¹ (.06)	.26 ¹ (.11)	.14 ¹ (.07)	.02 (.04)
Self x Buffer x Prime-Norm	.00 (.07)	-.11 (.14)	-.08 (.08)	.03 (.05)
F	22.71 ¹	4.34 ¹	3.75 ¹	49.22 ¹
R ²	.42	.31	.10	.61
Adj. R ²	.40	.24	.08	.60
df	383	126	401	386

Note: Standard Error in parentheses.

¹p < .05

²p < .10

report should not vary by priming condition. Finally, when norms were primed, the use of the self report should not vary significantly from the control condition.

Regression analysis was used to test these hypotheses. Separate regression models were estimated using OLS for each of the four key questions. In these models, the proxy judgment was regressed on the self report, one dummy variable representing question order (Buffer = 1, No Buffer = -1), two dummy

variables representing the priming conditions, all interactions, and gender as a covariate (Males = 1, Females = -1). The dummy variables for the priming condition were contrast coded to compare each priming condition with the control condition (X1: Control = -1, Prime-Similar = 1, Prime-Norm = 0; X2: Control = -1, Prime-Similar = 0, Prime-Norm = 1) (Cohen and Cohen 1983). Both the proxy judgment and the self report were centered on the mean for this analysis.

TABLE 2
Unstandardized Regression Coefficients Reflecting the Weight Given to Self Report in Making Proxy Report Estimated Within Condition

Item	No Buffer		Buffer	
	Control	Prime-Similar	Control	Prime-Similar
# Hrs TV Weekday ¹	.81 ^a (.10)	.53 ^b (.09)	.38 ^a (.14)	.79 ^b (.10)
# Times Drank Beer Last Month ¹	.64 ^a (.12)	.17 ^a (.33)	.29 ^b (.22)	.61 ^b (.14)
Health Rating ¹	.30 ^a (.16)	.21 ^a (.11)	.17 ^a (.14)	.50 ^b (.10)
Attitude Towards Drug Control Policy	.83 ^a (.07)	.78 ^a (.04)	.59 ^b (.11)	.66 ^b (.07)

Note: Standard Error in parentheses.

¹Self x Buffer x Prime-Similar interaction significant, $p < .05$

Pairwise comparisons are between the control and prime-similar condition within buffer groups for each item. Within these pairs, coefficients with different superscripts are significantly different from one another, $p < .05$.

The results of the regression analyses are shown in Table 1. For each model, the independent variables accounted for a significant proportion of the variance in the proxy report, ranging from 10% for reports about health status to 61% for reports about drug control policy. Not surprisingly, there was a significant main effect of gender in three of the four models (TV, Health, and Beer). This suggests that the mean level of reported proxy behavior or attitudes varied by gender. For example, women reported higher levels of beer consumption for their husbands. These differences are reflective of differences in self reports (e.g., men reported consuming beer more often than did women in their self reports). (See Bickart et al. 1991 for a further discussion of gender differences in proxy reporting.) In addition, the self report had a large and significant effect on the proxy report in each of the models.

We were most interested in whether the use of the self report varied as a function of the buffer and prime manipulations. This hypothesis is tested by the significance of the beta coefficient for the Self x Buffer x Prime interactions. A significant interaction suggests that the weight given to the self report varies as a function of the buffer and prime condition, relative to the control condition. The results of the regression analyses suggest that priming similarities, but not norms, affects the use of one's self report differently depending on the accessibility of the self report, compared to the control condition. For three of the four items (TV, Beer, and Health) the Self x Buffer x Prime-Similar interaction is significant,

while for the fourth item (Drugs) only the Self x Buffer interaction is significant. Priming norms, on the other hand, did not affect the use of the self report for any of the items (p 's $> .10$).

We then examined the nature of the Self x Buffer x Prime-Similar interaction. Our hypothesis suggests that the Self x Prime-Similar interaction should be significant in the No Buffer condition, but not in the Buffer condition. To test this, separate regression models were estimated within each Buffer condition, and the significance of the beta coefficient for the Self x Prime-Similar interaction was examined. Contrary to expectations, the weight given to the self report was more likely to vary as a function of the priming manipulation in the buffer condition (versus the no buffer condition).

These results are summarized in Table 2, which shows the unstandardized regression coefficients estimated within buffer and priming conditions. These coefficients represent the weight given to the self report within these conditions. In the buffer condition, greater weight was given to the self report when similarities were primed for both the TV ($E(1,186)=6.18$, $p < .05$) and the Health ($E(1,194)=4.17$, $p < .05$) items. For the other items (Beer and Drugs), the trends were in a similar direction, but were not significantly different. It appears that querying similarities increased the accessibility of self information, which had become less accessible due to the buffer of questions.

In the no buffer condition, the impact of the self report on the proxy report varied significantly as

TABLE 3
Convergence (Correlation Between Proxy Report and Other's Self Report) by Condition

Item	No Buffer			Buffer		
	Control	Prime-Similar	Difference	Control	Prime-Similar	Difference
# Hrs TV Weekday	.52 (47)	.31 (93)	.21 ²	.51 (47)	.35 (95)	.16
# Times Drank Beer Last Month	.91 (24)	.79 (42)	.12 ¹	.87 (17)	.64 (49)	.23 ¹
Health Rating	.68 (49)	.47 (102)	.21 ¹	.39 (50)	.58 (99)	<.19> ²
Attitude Towards Drug Control Policy	.36 (47)	.08 (98)	.28 ¹	.07 (48)	.29 (94)	<.22>

Note: Cell size in parentheses.

¹Dif. ≠0, $p < .05$

²Dif. ≠0, $p < .10$

a function of the priming condition only for the TV item. In this case, the self report received less weight when similarities were primed ($E(1,184)=4.72$, $p < .05$). A consistent pattern occurred for the other items, although the differences were not significant. Thus, contrary to expectations, priming a self-based comparison strategy seemed to result in a reduced use of one's self report in making a proxy report when the self report was accessible.

For the Drug item, the use of the self report varied only as a function of the buffer condition, as indicated by a significant Self x Buffer interaction. In this case, the self report influenced the proxy report more in the no buffer condition, that is when the self information was more accessible. The priming condition had no effect on responses to the drug item, possibly because respondents had not discussed the drug issue with their partner, and thus had little information on which to base their response to the priming question.

Finally, we were interested in seeing if the reduced anchor was associated with lower convergence between reports. Convergence is probably not a good indicant of accuracy in this case, given the social desirability biases that are likely for at least three of the items (TV, Beer, and Health). The convergence correlations, computed within the experimental cells, are shown in Table 3. The difference between correlations in the control and priming conditions within buffer conditions is of key importance. Correlations were transformed using Fisher's r to z transformation prior to significance testing. In the no buffer condition, correlations were significantly lower when similarities were primed compared to the control

condition for each of the items. Thus, priming a comparison-based strategy when the self report is accessible appears to be related to reduced convergence. In the buffer condition, priming a self-based comparison does not appear to affect convergence.

There are two important limitations to the convergence measure used here. First, convergence is likely to represent shared error between the self and proxy report (Bickart et al., 1991). Thus, both reports may be biased in the same direction, especially given the social desirability of the items. Second, convergence may also represent the actual similarity between the couple. Thus, differences in convergence can not be directly related to differences in the use of one's self report until actual similarity is considered.

DISCUSSION

There were several key findings in this experiment. First, when the self and proxy report were separated by a series of questions, people gave more weight to their self report when similarities were primed in a question preceding the proxy report. Priming similarities appeared to increase the accessibility of the self report, which may have been reduced due to the buffer.

When the self and proxy reports were elicited sequentially, the weight given to the self report was consistently *lower* when similarities were primed, compared to the no prime condition. Because the self and proxy reports were elicited sequentially, the self report should be relatively accessible. Thus, in this condition respondents appear to *reduce* the weight given to the self report. This runs directly counter to

the results reported by Menon et al. (1990), who used concurrent protocols as a dependent measure. It is possible that respondents' verbal reports of increased use of self information are a better indication of the accessibility of inputs, versus the actual use of inputs.

Earlier questions may have affected both the accessibility of inputs used to construct a judgment, and the strategy used to form the judgment. If a comparison strategy is activated, the increased use of the self report should be contingent on the similarity of the couple in the given domain. Modal responses on the similarity questions suggest that most respondents felt they were at least somewhat like (not very different from) their partner in the queried domains, with the exception of beer consumption, where people tended to rate themselves as being either very alike or very different. Because the self report was accessible (compared to the buffer condition), the priming question may have increased the salience of any differences between the couple. Thus, the self report may have been given less weight to account for such differences. Future analyses will take this contingency into consideration.

It is also possible that when a comparison strategy was activated and the self report was accessible (e.g., had recently been queried), respondents may have used the self report as a standard of comparison for making the proxy report, regardless of the content of the self report. A framework proposed by Schwarz and Bless (in press) suggests that this is likely to occur when: (a) respondents are aware that the information has come to mind due to a preceding task, and (b) respondents feel that their response will be redundant with earlier answers. The manipulations in this experiment may have produced such effects. Further, the Schwarz and Bless model suggests that if (a) and (b) do not hold, assimilation is likely to occur. Again, this is consistent with the results in the buffer condition, where respondents are less likely to realize that their self report had been rendered accessible due to the context.

Finally, preliminary results from this study suggest that convergence between the proxy report and the other person's self report was lower when a self-based comparison strategy was primed and the self report was accessible. Under these conditions, it appears that respondents may have discounted their self report in making the proxy report. Assuming that the self report is a diagnostic input for the proxy judgment, discounting the self report would result in a less accurate judgment. Because respondents are more likely to use their self report when it is accessible, eliciting self and proxy judgment sequentially may be the optimal strategy. It is important to note that convergence may not be a good indicant of accuracy in this case. High convergence may simply reflect shared error between the self and proxy report, particularly given the sensitive topics queried in this study (Bickart et al. 1991). Further research is needed in this area.

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Assimilation and Contrast Effects in Attitude Measurement: An Inclusion/Exclusion Model

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ABSTRACT

We present a theoretical model of context effects in attitude measurement that predicts (a) the conditions under which context effects are likely to emerge; (b) their direction (i.e., assimilation or contrast); (c) their size; (d) their generalization across related items; and (f) their dependency on the mode of data collection used.

Market researchers have long been aware that attitude measurement is context dependent, and that preceding questions may influence the responses given to subsequent ones. However, the conditions under which context effects may emerge are not well understood -- and when they emerge, it has typically been difficult to predict their direction. In the present paper, we present a process model (Schwarz & Bless, in press) that draws on current theorizing in social cognition (Barsalou, 1989; Kahneman & Miller, 1986) to identify variables that give rise to question context effects and to specify the conditions under which answering a preceding question results in assimilation or contrast effects on subsequent judgments.

ASSIMILATION AND CONTRAST EFFECTS

In short, we assume that individuals who are asked to form a judgment about some target stimulus first need to retrieve some cognitive representation of it. In addition, they need to determine some standard of comparison to evaluate the stimulus. Both, the representation of the target stimulus and the representation of the standard are, in part, context dependent. Individuals do not retrieve all knowledge that may bear on the stimulus, nor do they retrieve and use all knowledge that may potentially be relevant to constructing its alternative. Rather, they rely on the subset of potentially relevant information that is most accessible at the time of judgment. Accordingly, their temporary representation of the target stimulus, as well as their construction of a standard of comparison, includes information that is *chronically accessible*, and hence context independent, as well as information that is only *temporarily accessible*, due to contextual influences.

Whereas differences in the chronic accessibility of information reflect respondent characteristics, differences in the temporary accessibility of information are primarily due to questionnaire variables. Most importantly, information that has been used for answering a

preceding question is particularly likely to come to mind when respondents are later asked a related question, to which it may be relevant.

Assimilation Effects

How the information that comes to mind influences the judgment, depends on how it is *categorized*. Information that is *included* in the temporary representation that individuals form of the target category will result in *assimilation effects*. This reflects that the judgment is based on the information that is included in the representation used. Accordingly, the addition of some positive information results in a more positive judgment, whereas the addition of some negative information results in a more negative judgment.

Suppose, for example, that you are asked to report your opinion about the politicians of the Christian Democratic Party that governs Germany. To do so, you will presumably recall some relevant information from memory. This information makes up the "cognitive representation" of politicians of the Christian Democratic Party. Assuming some basic familiarity with German politics, the chronically accessible information that comes to mind may include that the CDU is a conservative party, that Chancellor Kohl is a member of it, and so on.

Other features of the target, however, will only come to mind on some occasions. These features are therefore said to be "context dependent". For example, if you were just asked a question about Richard von Weizsäcker, a particularly well respected member of the Christian Democrats, information related to Richard von Weizsäcker may come to mind later on. If you include this information in the cognitive representation that you construct of the Christian Democrats, you should evaluate politicians of this party in general more positively than if no question about Richard von Weizsäcker was asked.

Empirically, this is the case. In one of our experiments we asked subjects to recall the party of which "Richard von Weizsäcker has been a member for more than 20 years". Answering "Christian Democratic Party" should include Richard von Weizsäcker in the temporary representation that respondents form of politicians of the Christian Democrats. As shown in the first row of Table 1, this manipulation resulted in a more favorable evaluation of the party in general.

Contrast Effects

However, according to our model, the same piece of information may also result in a contrast effect. We propose that this is the case when the information is *excluded* from, rather than included in, your cognitive representation of the target.

For example, Richard von Weizsäcker has not only been a member of the Christian Democratic Party

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TABLE 1
Evaluation of Political Parties as a Function of the Inclusion or Exclusion of a Highly Respected Politician

Target	Preceding Question about Richard von Weizsäcker		
	Party Membership	None	Presidency
Christian Democrats	6.5	5.2	3.4
Social Democrats	6.3	6.3	6.2

Note. N = 19 to 25 per condition. 1 = unfavorable; 11 = very favorable opinion about politicians of the respective party. Adapted from Schwarz & Bless (in press).

for several decades, but he also serves as President of the Federal Republic of Germany -- and the office of President requires that he no longer actively participates in party politics. The President as a representative figure-head of the Federal Republic is supposed to take a neutral stand on party issues, much as the Queen in the UK. This rendered him particularly suitable for the present experiment because it allowed us to ask other respondents, "Do you happen to know which office Richard von Weizsäcker holds, that sets him aside from party politics?".

Answering this question should *exclude* Richard von Weizsäcker from the representation that respondents form of Christian Democratic Party politicians. If so, it should result in lower evaluations of Christian Democratic Party politicians in general, although it may do so for different reasons, as discussed below. Empirically, this was again the case, as shown in the first row of Table 1.

This contrast effect may reflect either of two processes. On the one hand, Richard von Weizsäcker and his party membership may have been chronically accessible for some subjects who were not asked a question about him. If so, some of our control group subjects may have spontaneously included him in their representation of the party. In this case, the assimilation effect would reflect that the party membership question increased the number of subjects who did so. By the same token, the contrast effect would indicate that the presidency question decreased the number of subjects who did so. Thus, the obtained contrast effect would simply reflect that these subjects "*subtracted*" Richard von Weizsäcker from the database that they used in forming a judgment.

On the other hand, evaluations do not only require a representation of the target stimulus, but also a *standard* against which the target is evaluated. We assume that this standard is just as context dependent as the representation of the target itself, and includes chronically as well as temporarily accessible information. Accordingly, our respondents may not only have excluded Richard von Weizsäcker from their representation of his party, but may also have used him in constructing a standard of comparison against which his party was evaluated. Given that Weizsäcker

sets a high standard, such a *comparison* process would also result in a lower evaluation.

Thus, our model provides two different mechanisms for the emergence of a contrast effect, which are not mutually exclusive: Namely the subtraction of information from the representation of the target, and the possible use of this information in the construction of a standard or scale anchor. How can we distinguish these two processes? The most straightforward way to distinguish them is to assess the generalization of the obtained contrast effect across different stimuli to which the standard of comparison may be relevant. If the obtained contrast effect solely reflects the subtraction of Richard von Weizsäcker from the representation of the target category "politicians of the Christian Democratic Party", the presidency question should only affect the evaluation of politicians of this party. If respondents used Richard von Weizsäcker in constructing a standard of comparison or a scale anchor, on the other hand, the obtained contrast effect should generalize to the evaluation of politicians of other parties, such as the Social Democratic Party, to which this standard is also applicable.

To explore this possibility, we exposed other respondents to the same questions but asked them to provide a general evaluation of politicians of the *Social Democratic Party*. As shown in the second row of Table 1, neither of the questions about Richard von Weizsäcker affected subjects' evaluation of politicians of the Social Democratic Party. This suggests that the contrast effect obtained on the evaluation of Christian Democratic politicians reflects a *subtraction effect*, rather than a change in the standard of comparison or scale anchor.

The Impact of Category Width: Political Scandal Study

Our next study (Schwarz & Bless, in press) extends the inclusion/exclusion logic by demonstrating changes in the standard of comparison. Moreover, it bears on a different variable that may determine the inclusion or exclusion of information, namely the inclusiveness of the question asked.

Suppose, for example, that respondents are induced to think about politicians who were involved

TABLE 2
Evaluation of the Trustworthiness of Politicians in General and of Three Exemplars as a Function of Thinking About a Scandal

Target	Scandal Question	
	Not Asked	Asked
Politicians in General	5.0	3.4
Specific Exemplars	4.9	5.6

Note. N = 8 per condition. 1 = not at all trustworthy; 11 = very trustworthy. Adapted from Schwarz and Bless (in press).

in a political scandal, and are subsequently asked to evaluate the trustworthiness of politicians in general. According to our model, the politicians involved in the scandal are members of the general category "politicians" and are therefore likely to be included in the temporary representation that respondents form of that category. If so, their evaluation of the trustworthiness of politicians in general should decrease, reflecting an assimilation effect.

Suppose, however, that respondents are *not* asked to evaluate the trustworthiness of politicians *in general*, but the trustworthiness of a *specific politician*, Mr. Joe Doe, who was not involved in the scandal. We assume that in evaluating a specific person, this person makes up a category by him- or herself. If so, the politicians who were involved in the scandal should not be included in subjects' representation of Joe Doe. Rather, these politicians may be used in constructing the standard or scale anchor against which Joe Doe is evaluated. If so, Joe Doe may seem particularly trustworthy by comparison, reflecting a contrast effect. Thus, the model predicts that thinking about politicians who were involved in a scandal *decreases* judgments of the trustworthiness of politicians in general, but *increases* judgments of the trustworthiness of specific politicians, provided that they were not involved in the scandal.

To test this implication, we asked subjects to recall the names of some politicians who were involved in a recent political scandal in West Germany (the so called "Barschel Scandal", which bears some resemblance to the Watergate scandal), either before or after they answered the dependent variables. As shown in Table 2, thinking about the Barschel scandal resulted in decreased judgments of the trustworthiness of German politicians in general. This assimilation effect reflects that subjects included the politicians who were involved in the scandal in their representation of German politicians in general.

Other subjects, however, were asked to evaluate the trustworthiness of three specific politicians, who pretests had shown to be not particularly trustworthy to begin with, although they were not involved in the scandal under study. In this case, thinking about the Barschel scandal *increased* judgments of

trustworthiness of these specific politicians. This contrast effect reflects that subjects used the easily accessible politicians who were involved in the scandal in constructing a standard of comparison or scale anchor. Note that this contrast effect cannot be accounted for on the basis of a subtraction assumption. The information that was primed by the scandal questions was presumably never part of subjects' representation of the specific politicians they had to evaluate. Hence, the contrast effect obtained here reflects the use of the recalled politicians in constructing a relevant standard of comparison or scale anchor. This information could only be used in constructing the standard, however, when it was not perceived to bear on the respective target category in the first place.

These findings indicate that the same information may affect related judgments in opposite directions, depending on whether the respective target category invites the inclusion or the exclusion of the information that comes to mind. In general, our model predicts that assimilation effects are the more likely to emerge, the more inclusive the target category is. Accordingly, *general questions* that assess respondents' opinion about a wide target category, that allows for the inclusion of a variety of different information, should be most likely to show assimilation effects. On the other hand, *specific questions*, that assess respondents' opinion about a narrowly defined target, should be more likely to show contrast effects. This reflects that it is more likely that the information that comes to mind can be included in one's representation of a global rather than of a specific target.

On the substantive side, we would obviously draw very different conclusions about the impact of scandals on politicians' trustworthiness, depending on whether we asked a general or a specific question. In the light of these data, it also comes as no surprise that political scandals are typically accompanied by attempts to channel the public's categorization of scandal related information. To the extent that individual politicians, or groups of politicians, can dissociate themselves from the scandal, they may actually benefit from the misdemeanor of their peers,

TABLE 3
 Contrast Effects as a Function of the Dimension Tapped by Preceding Questions Context Stimulus

Preceding Question	Vodka	Beer
Consumption	5.4	4.4
Caloric Content	4.4	4.5

Note. N = 25 to 27 per cell; 9 = "very typical". The mean of ratings of three beverages (milk, wine, and coffee) is given. Adapted from Schwarz, Münkler and Hippler (1990).

although the impact on the perception of the profession as a whole is likely to be negative.

The Role of Salient Dimensions

So far, we have seen evidence for the emergence of subtraction based contrast effects in the Weizsäcker study, and for comparison based contrast effects in the scandal study. Under which conditions, however, are we likely to obtain one or the other? We propose that thinking about some stimulus does only evoke comparison processes in evaluating subsequent stimuli if the stimulus is linked to the relevant judgmental dimension. If the stimulus is thought about with regard to some other dimension, it is unlikely to be used as a standard or as a scale anchor for a later unrelated judgment. With regard to the preceding studies, this suggests that thinking about a political scandal was likely to bring the dimension of trustworthiness to mind. On the other hand, thinking about Richard von Weizsäcker's party membership or office may have been less likely to bring the evaluative dimension to mind that was relevant to subsequent judgments of the Christian Democrats.

In line with this assumption, one of our studies demonstrated that comparison effects do only emerge when the context dependent information is linked to the dimension of judgment (Schwarz, Münkler, & Hippler, 1990). Specifically, we asked subjects to rate how "typically German" a number of different beverages is, namely wine, coffee, and milk. Before they made this judgment, some subjects were asked to estimate the caloric content of a glass of vodka, or of a glass of beer, respectively. Other subjects, however, were asked to estimate how frequently Germans drink vodka or beer.

Both questions should make vodka or beer more accessible in memory. However, only the frequency of consumption question is related to the typicality dimension, whereas the caloric content question is not. If it is sufficient that an extreme stimulus comes to mind, both questions should result in contrast effects on subsequent typicality ratings. If the emergence of comparison effects requires that the extreme stimulus is linked to the relevant judgmental dimension, on the other hand, contrast effects should only emerge when subjects estimated the frequency of consumption.

Empirically, this was the case. When subjects estimated the frequency of consumption, they rated all

beverages as more typically German after thinking about vodka than after thinking about beer, as shown in Table 3. Estimating the caloric content of vodka or beer, on the other hand, did not affect their ratings. Accordingly, we conclude that the emergence of comparison or anchoring effects requires that the context dependent information is linked to the relevant dimension of judgment.

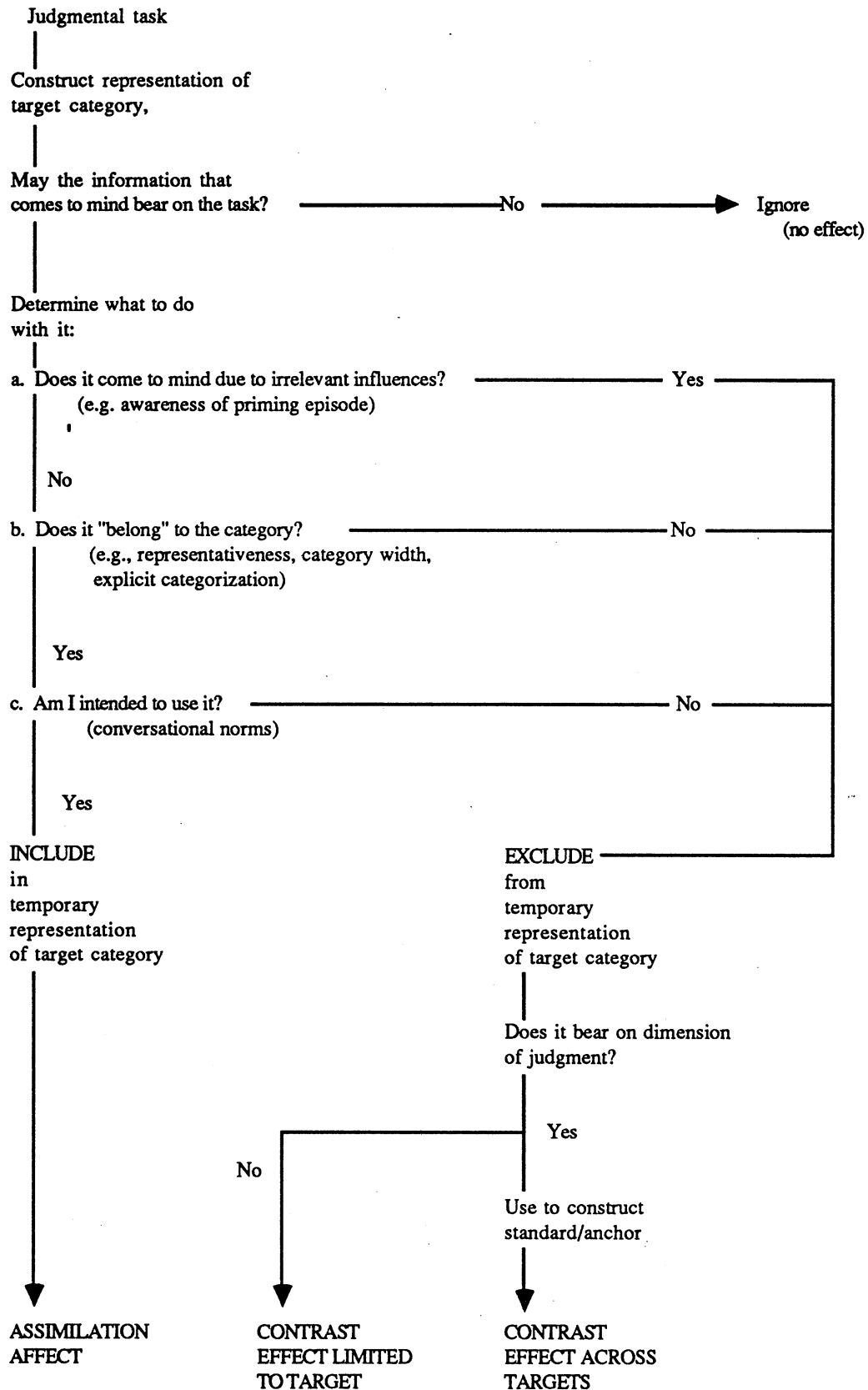
This suggests that we may only see comparison or anchoring based contrast effects when the excluded information is thought about with regard to the relevant dimension of judgment. In that case, it may be used as a standard of comparison or as a scale anchor, resulting in contrast effects that *generalize* across various target categories. If the excluded information is thought about with regard to some other dimension, it may still result in contrast effects, but only by means of a subtraction process. Accordingly, the contrast effects that emerge under this condition should be *limited* to the evaluation of the category from which the information was excluded in the first place, as was the case in the Weizsäcker study.

THE INCLUSION/EXCLUSION MODEL

In summary, when asked to form an opinion about some target, respondents will search memory for relevant information. Some information is likely to come to mind under all circumstances, and is hence called context independent. Other information will only come to mind because it has been used recently, for example, in answering a preceding question. How the information that comes to mind influences the judgment, depends on what respondents do with it. On the one hand, they may use it in constructing a cognitive representation of the target. On the other hand, they may use it in constructing a standard of comparison or scale anchor, against which the target is evaluated.

For which purpose the information is used, depends on a number of categorization decisions that respondents have to make. In the present paper, we have only discussed one of the three decisions shown in Figure 1. This decision reflects if the information "*belongs*" to the target category or not. This decision is influenced by the *content* of preceding questions, as in the case of the Weizsäcker study, and by the *width* of the target category, as in the political scandal

FIGURE 1
Inclusion/Exclusion and the Emergence of Assimilation and Contrast Effects



study, as well as related variables (cf. Schwarz & Bless, in press). If the answer to the "does-it-belong?" decision is YES, the information is included in the representation formed of the target category. This results in an *assimilation effect*. The size of this assimilation effect increases with the amount and extremity of context dependent information, and decreases with the amount and extremity of context independent information.

If the answer to the "does-it-belong" decision is NO, the information is excluded from the representation formed of the target category. This results in a contrast effect that may or may not generalize to judgments about other targets. If the information has NOT been thought about with regard to the underlying dimension of judgment, it is only excluded from the representation of the target category. This results in a localized contrast effect that does not influence related judgments of other targets, as we have seen in the Weizsäcker study. We call this type of contrast effect a *subtraction effect*. The size of subtraction effects again depends on the amount and extremity of the subtracted information, and on the amount and extremity of other information that is used in constructing the representation. If the excluded information HAS been thought about with regard to the underlying dimension of judgment, however, it is likely to be used in constructing a standard, which may be applied to other targets as well. This results in generalized contrast effects, as we have seen in scandal study and the study on drinks. We call this type of context effect a *comparison effect*. Its size depends on the amount and extremity of the context dependent and independent information used in constructing the standard.

In combination, the model predicts the *direction* as well as the *size* and the *generalization* of context effects. Moreover, it provides a framework for the conceptualization of the role of questionnaire variables, which influence the temporary accessibility of information and respondents' categorization decisions, as well as respondent characteristics, which influence chronic accessibility.

As shown in Figure 1, other decisions bear on whether the information comes to mind due to some external influence (e.g., Lombardi, Higgins, & Bargh, 1987), and on whether conversational norms do or do not prohibit its use (e.g., Schwarz, Strack, & Mai, 1991). We provide a detailed discussion of these steps, and a review of relevant research, elsewhere (Schwarz and Bless, in press). In general, these decision steps allow us to conceptualize the impact of introductions to blocks of questions, the presence of filler questions, and other aspects of questionnaire design, including the graphical lay-out of mail questionnaires. All of these variables have been shown to influence inclusion/exclusion decisions and hence the direction of context effects in some of our studies.

One additional point, however, deserves attention. Figure 1 seems to suggest that respondents are engaged in a lot of decision making in a very orderly fashion. Probably, this is not quite so. We assume that the default option is to include what comes

to mind and that decisions that may result in exclusion processes need to be triggered by some salient feature of the questioning process. This suggests that we should be more likely to see assimilation rather than contrast effects in survey measurement, reflecting that assimilation effects are based on the default option, namely the inclusion of what comes to mind. Moreover, exclusion processes require additional cognitive work. Accordingly, we should only see them when respondents are motivated and able to engage in this work (see Martin, Seta, & Crella, 1989). This suggests that contrast effects should be more likely to emerge the more respondents have a chance to engage in the necessary cognitive work, as is for example, the case under the leisurely conditions of responding to a self-administered questionnaire, but less under the time pressure of a telephone interview (cf. Schwarz, Strack, Hippler, & Bishop, 1991). Hence, the model predicts that the emergence of context effects may depend on the mode of data collection, although relevant data are not yet available.

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Rationality of the Culture of Goods

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My paper is about the relationship between the two kinds of "rationality" involved in modern market economies: the pecuniary calculus of gain, or economic rationality proper, and the logics of meaningful properties by virtue of which goods become use values in the society. No doubt this is all too familiar. Even though the 500th anniversary of Columbus' feat is near, I do not pretend to bring you the startling anthropological news of the discovery of America. But would like to do a bit of archaeology on our disenchanting consciousness of rationality with a view toward suggesting that its supposed dominance over the symbolic dimensions of material life is a cultural prejudice.

Indeed the peculiar Western species called *Homo economicus* goes back to Original Sin. By pleasing himself instead of regarding God, man was condemned to the unhappy existence of a "self-pleaser" -- in a world of "thorns and thistles." The punishment, as Augustine said, was the crime. Man (Adam) put love of himself before the love of Him alone who could suffice, disobeyed god to satisfy his own desires, and thus became the slave of insatiable bodily needs: a limited and ignorant creature exiled in an intractable natural world to labor, to suffer, and then to die. This life, concluded Augustine, is a "hell on earth." No wonder that babies are born into it crying and shrieking.

Still, God was merciful: He gave us Economics. By Adam Smith's time, human misery had been transformed into the positive science of how to make the best of our eternal insufficiencies, the most possible "satisfaction" from means that are always less than our wants. It was the same Christian cosmology, only bourgeoisified, which is to say, a more encouraging prospectus of the investment of opportunities that are afforded by human suffering. And even though the neo-classical economists would go on to translate our primordial inadequacies--what Hume had called "the unnatural conjunction of infirmity and necessity"--into elegant mathematics of scarcity, the genesis was not forgotten. "We have been turned out of Paradise," said Lionel Robbins, in a famous determination of the object of Economic Science: "We have neither eternal life nor unlimited means of gratification. Everywhere we turn, if we choose one thing we must relinquish others which, in different circumstances, we would wish not to have relinquished." So Robbins is clear! The Economic Man that inhabits page one of our Economics 101 textbook, this character is Adam.

Robbins skips over a lot of things that happened between the Fall and its Economics, especially the Renaissance change of heart about the blessings of poverty and the contemptibility of this world. No time for that here either. Jump to the seventeenth or eighteenth century. Everything happened as if the developing empirical science together with the emerging market economy, the twin demiurges of the Western rational cosmos, would

complete man's banishment to a godless natural world. Whatever the pan-glosses the intellectuals were putting on it, the full consequences of the tragedy in Eden were becoming apparent to the European progeny of Adam. Even the headier Enlightenment schemes of human progress, insofar as they translated a faith in divine redemption and dogmas of social evolution--the "rationalist corruption of Christian eschatology," as Paul Ricoeur describes it --even these progressive schemes were grounded in a base human nature: a libidinous creature easily driven by continuous wants to viciousness and competitive strife. And at the same time that the *philosophes* were thus revealing the full scope of human imperfections (while talking of the perfectibility of the species), the economy was producing unparalleled "satisfactions" by capitalizing on "one thousand shocks the flesh is heir to."

In this regard, the Invisible Hand of the market place might well have been the wrathful hand of God, as it would create the wrath of the nation out of the sense of privation it visited on the person. If the collective wealth is best secured by each one maximizing his own, it follows that each must be in that recurrent state of insufficiency that is the beginning of economic wisdom--the aforementioned scarcity of material means relative to the possible ends of personal gratification. This was the great industrial revelation: that in the world's richest societies, the subjective experience of need increases in proportion to the objective output of wealth. Or rather, in greater proportion, since needs are presumed to be endlessly expandable: the unnatural conjunction is between infirmity and infinity. Suffice it to say that individual wants, by encompassing an international division of labor, became permanent and inexhaustible. Felt moreover as physiological pangs, like hunger and thirst, such need seemed to emanate from natural dispositions of the body, springing from human nature itself. The bourgeois economy made a fetish of human needs in the sense that needs, which are always social and objective in character, which are always then historical formations, had to be assumed as subjective experiences of bodily affliction. The corollary of Weber's iron cage of pure desire has been an exquisite sensitivity to pleasure and pain, duly installed as the hegemonic motives of people's actions. Sensitivity especially to pain, which is anyhow the condition of the possibility of pleasure and much more lasting -- as every Chicago Cub fan knows.

The development of bourgeois society thus liberated egoistic man from the prison house of Christian morality and allowed desire to parade shamelessly by the light of day. This was no fundamental revolution in the Western concept of human nature, only a moral reversal between the earthly and heavenly sides of man's double being, and exchange of the values of flesh and spirit. Self-love acquired a positive moral status. The original evil and source of vast sadness in Augustine, it became the

"necessary evil" of *philosophes* such as Holbach, or else simply "natural" as in Hobbes, to end in Adam Smith & Co. as the pursuit of happiness and the best thing, since the greatest total good came out of each one's total self-concern. What was slavery to Augustine, every person's endless and hopeless attention to his own desires, is now perceived as the essence of freedom, the sacred right of every individual to do just that.

The argument I would make is that the development of capitalism, by making individual need appear as the cause of collective institutions, motivated a folk consciousness of society that passed too easily for the science of thereof.

Every cultural order fashions representations of itself: modes of appearance that are taken as ultimate realities since they make up the people's awareness of their social existence. Yet this subjective experience of culture is not the same thing as the systematic relations and meanings that historically produced it. Following Karl Polanyi, the decisive institutional moments of modern Western history can be described as the commoditization of land and labor. Brought into the marketplace, land and labor then entered in pecuniary relations with the other goods of existence. But since, as Polanyi reminds us, "labor is only another name for man, and land for nature," this is also to say that all human existence became subject to the dispositions of the supply-demand-price mechanism.

Subjectively, then, a vision that began in the Renaissance (Pico, Manetti) was coming true: we could make ourselves whatever we chose, inasmuch as the whole universe had been commodified. Unfortunately, however, no one has been able to afford it. So the actual effect was to make the recurrent sense of *scarcity* or lack the necessary condition of life -- whether in the perspective of capital, labor or consumption -- the process of accumulation is the reproduction of an initial scarcity, an eternal return to a deficiency of means relative to ends, setting off another cycle of judicious economizing. As for livelihood (so-called), accumulation is a labor of Sisyphus, ever falling back to zero by the act of consumption. Or worse. Even with respect to its apparent satisfactions, livelihood is a tragedy that, beginning in scarcity ends in deprivation, since every acquisition is also a denial of something different that could have been had instead. The commodity (as Marx taught) has a double nature. On one hand, it appears as an abstract exchange-value or price, which is not a property of the object as such but an external mark attached by the market, so making it more or less accessible to us. On the other hand, the commodity is a use-value in virtue of its empirico-meaningful qualities, the content that makes it suitable to our "needs" as historical and social beings -- the way that a filet mignon, being suitable for a celebratory occasion, is not just chopped liver. Now in certain respects, this dualism of value is irreducible, however we try to synthesize it in terms of "satisfaction." For in choosing between different goods, presumably in the interest of maximum satisfaction, one in fact forgoes specific gratifications that in quality (or use-value) are incommensurable with those achieved. The

idea that economic activity is the rational maximization of satisfactions is a cultural *cum* academic mystification. It depends on the supposition that things unlike in their objective attributes and human virtues, their different meanings to us as use-values, are indeed comparable as quantities, which is actually and only true in their capacities as exchange values. Thus the economist is able to subtract oranges from apples and convince us that the remainder is all for the best. But what remains to haunt us in choosing, for example, between taking kids to see their grandparents in California or saving the money to send them to college is that either kinship suffers or else education.

This is where a certain social science comes in: as an academic reflection on the common experience that by satisfying our individual need we create society. Since all use-values are transacted through exchange-values, in people's existential awareness, cultural forms of any description are produced and reproduced according to the calculus of their personal desires. These needs to which scarce resources are rationally allocated, they are nothing less than the system of society perceived as ends of the individual. Society seems to be another trick of the Invisible Hand, a kind of ledger-domain. And in the event, the whole cultural organization of the economy remains invisible, or at least implicit, being explicitly perceived as the pecuniary rationality by which its arbitrary symbolic values are realized. All the idiocies of modern life -- from Walkmans, and Reeboks, mink coats and five-million-dollar-a-year left-handed pitchers, to MacDonalds, Madonnas and other weapons of mass destruction -- this whole curious scheme can appear to the participants as the transparent effects of a universal practical wisdom. Hence the great rationality-paradox of a social science derived from the same native consciousness: that though the society seems to be constituted by rational choice, it is not thus intelligible. Though the total cultural order is generated by acts of practical-material reason, the effects are anything but utilitarian.

For the practical rationality of the things American people need would be difficult to imagine, however prudently they go about getting them. Is the relative cost of filet mignon really a reflect of its superior nutritional values? Are mink coats really warmer? The current sexist dogma, is this the most effective way to organize a division of labor? The streams of five passenger cars on the way to O'Hare airport each occupied by one or two people, is this a rational system of energy use? To say that people are optimizing other ends than material utility does not resolve the problem but merely describes it, as the statement is either a simple tautology or it invokes principles of value different in kind from the means-ends relations of practical action itself. To allege there is no disputing people's tastes is merely a formula for ignorance, for then there can be no social or historical understanding of them. Nor will it do to put the onus on the production side, as if capital creates demand arbitrarily. Somebody or something has to educate the educators. Even the producers who may be perpetuating people's tastes have to be

informed by the order of cultural values, that is, by what sells -- or else they will discover the system of society by their loss. Producers surely expand and manipulate the cultural code, but to do so they have to work out its logical implications. Everything will then happen as if the market economy were a perverse form of Hegel's cunning of reason: a cunning of custom, rather which by harnessing an absolute mode of rationality to a relative logic of signs ushers in a truly golden (i.e., profitable) age of symbolic freedom.

I am not speaking of the "irrational factors" in demand or production, a phrase which recuperates within a traditional paradigm of optimization what is inexplicable by it and thus defends the territory of the economy as the kingdom of the rational. I am speaking rather of another kind of logic, more encompassing than the instrumental and just as systematic, by which the calculus of satisfactions is mobilized and organized. Always the instrumental logic is set in cosmic order of cultural values. Practical rationality is subject to a calculus of meaning whose operations are such as metaphor, identity, analogic proportion, synecdoche, deixis, inversion or negation, and whose effect is to symbolically conjugate a set of material goods with a world of social persons. So it is not only objects which are hard or soft but also persons, even as it is not only persons who are masculine or feminine but also objects. Yet masculinity and femininity cannot be discovered in the physical properties of things such as steaks and tomatoes. It is their integration in the cosmos of symbolic values, the function of their properties as signifiers, that makes goods masculine or feminine, sexy, dressy, not right to eat for breakfast, Californian, upscale, youthful or appropriate on Sundays but not on weekdays. (I am reminded of my teacher Leslie White, of his favorite illustration of the symbolic: no ape, he used to say, could tell the difference between holy water and distilled water.) Pardon me for being so simple. But it sometimes seems necessary to recall that we are one of the others: exiled to a world without immanent spirit, perhaps, yet living a life of things as enchanted as the practitioners of any totemism.

"Every commodity carries with it a practical philosophy and a doctrine of life," observes an historian of the old Asian silk route. Indeed to clothe oneself in silk is to participate in its social significance, a whole doctrine of life, which includes the differentiation of women as "soft as silk" by contrast to the courser manliness of wool. And yet this analogic of the elementary units of apparel -- the "clothemes" of texture, color, line, pattern and the like -- are the beginning only of a vast grammar of clothing whose systematic dimensions are yet to be adequately explored and described. Notice the fascinating structures on the higher levels of clothing "statements": if men are to woman as wool is to silk and trousers are to skirts, still women may legitimately wear woollen pants, although "real men" will not be caught dead wearing silk dresses. But then "unisex clothing" is generally male clothing. And all such examples of the grammar of goods correspond to

the markedness structure of the pronouns of our language, which likewise encompasses the feminine in the masculine and defines the former as a differentiated and opposed subgroup of the latter. A fact that at last allows me to return to the beginning of the paper, to justify it as archaeology, since in the Western mythology woman was indeed made from a part of Adam (Man). What I am trying to suggest, then, is that what we usually think of as a practical praxis, not only in the production of clothing, but food, shelter and everything else, that all this is only the objectification in concrete terms of a total historical and cultural "doctrine of life."

It may not be "you are what you eat" -- or if so, it is because of an *a priori* logic that connects what you eat with what you are. (A friend of mine doing ethnographic work in New Guinea with a people who had formerly practiced cannibalism asked one if he ate his enemies in order to become like them, to assimilate their powers. "You eat chicken, don't you?" The anthropologist nodded in assent "well, does that make you like chickens?") In any event, the studies of Mary Douglas and her colleagues have demonstrated an enormous set of relationships between main social distinctions in modern societies -- distinctions of gender, religion, ethnicity, region and status -- and patterns of food consumption.

The variations concern not merely types and properties of different foods, modes of preparation and the structures of meals, but also daily, weekly and seasonal consumption routines, culinary modes of celebration and ritualization, and much more. There is clearly a complex, heteroglossically expressed code connecting meaningful social and cultural distinctions with objects of properties of food and its preparation. Observations of Bourdieu and others have begun to explore the code, this cast cultural system of diet. But so much remains to be done, perhaps because it is not always appreciated that the task will have to go far beyond the ethnography of eating, into the history and constitution of the cultural order in general. If the outside of the animals is to the "innards" as culture or civilization is to nature, in the way that names of our meats suggest, we will have to open up the whole question of the culture-nature distinction and its connection to concepts of bodies as well as categories of persons. If meat is to vegetables (or steak is to tomatoes) as the masculine to the feminine, we will have to take notice of the historical fact that "meat" was once the generic term for "food," and the livestock, as opposed to the "deadstock" of fixed farm equipment, was the principle of increase in the domestic economy -- whence the well known connection of cattle with stock in the form of capital. And if meat is so mixed up with gender and wealth, let us not forget that we use the concept of inheritance -- which in our society is predominately patrilineal -- to refer equally to the transmission of biological and social identities (genes and names) as well as to the transmission of property. There is a peculiar relation of cultural domains involved in the meanings of food - - and more, there is a whole cultural cosmology.

Person Perception Carry-Over Effects: An Exploratory Look at How Our Partners' Traits Influence The Evaluation Of Ourselves

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ABSTRACT

Research has investigated what traits individuals should possess to receive favorable evaluations. We extend this inquiry by exploring how the evaluation of individuals is influenced by the traits of their romantic partners. Subjects 1) read vignettes which portrayed partners who possessed varying degrees of status, personal warmth and attractiveness, and 2) rated the favorability of individuals associated with these partners. Individuals who had partners with high, versus low, personal warmth were judged favorably, with those who had partners with high personal warmth/low status rated highest. In addition, paralleling past research, males judged individuals by the partners' attractiveness more than females did.

A recent radio advertisement provides the listener with a conversation between individuals who are wondering why they lost out on a promotion. While one individual mentions, "I get along better with the boss than he [the promoted colleague] does," the other remarks, "My wife is prettier than his." The last remark suggests that individuals are evaluated not only by their own characteristics, but also by the traits of their spouse or romantic partner.

Similar to the manner in which the traits of a company spokesperson influence the image of a product, the attributes of a romantic partner may influence judgments about an individual. This "partner carry-over" has many applications in consumer behavior. For example, in the field of advertising, suppose that an advertisement is being constructed to show consumers what type of individual (e.g., a yuppie or a farmer) uses a given product. The inclusion of a romantic partner can be used to reinforce the desired image. In addition, in the field of public relations, individuals who are concerned about projecting a certain image (e.g., political candidates) might be interested in knowing how their partners' characteristics reflect upon themselves. In short, the partner carry-over effect is relevant to any occasion in which it is important that an individual project a certain image to consumers.

While researchers have long noted the potential impact of a partner's characteristics (Whyte, 1956) efforts to explore any carry-over effect have been limited to the examination of the trait of physical attractiveness. In real world situations information about variables other than attractiveness may be available for forming person perceptions. This research is an attempt to explore how personal traits combine to form a partner carry-over effect.

Past Research On Traits Which Influence Person Perception

Physical attractiveness. The partner carry-over effect has been partially examined by researchers investigating physical attractiveness. Past work suggests that individuals who associate with others

who are attractive are evaluated higher than those who do not (Strane and Watts, 1977; Sigall and Landy, 1973). However, other efforts suggest that this effect is dependent upon gender specific stimuli in that it occurs primarily for males who associate with attractive female partners (Harnett and Elder, 1973; Bar-Tal and Saxe, 1976).

When individuals describe one another they often comment upon factors other than attractiveness such as personal warmth (e.g., amicability) and status (e.g., success in professional or intellectual pursuits). When investigated separately these factors have been found to heavily influence the evaluation of individuals (see Sears, Freedman, Peplau, 1985). However, the simultaneous influence of multiple *partner* traits on individual evaluations has not been probed in past work.

Personal warmth. The extent to which an individual has a pleasant personality, or is personally warm, may be assessed by witnessing the degree to which he/she reacts positively to other individuals. Research (Folkes and Sears, 1977) has shown that individuals who have a positive attitude are perceived as having higher levels of personal warmth and more favorable evaluations than those who do not. This perhaps suggests that individuals who have partners with high personal warmth are evaluated more highly than individuals who have partner's with low personal warmth.

Status. An individual's status is often measured through his/her success in professional or intellectual pursuits. For example, individuals are often judged by what college they attended or by their job title. In general, individuals who have high status are evaluated more favorably than those with low status (Kinder and Abelson, 1981). Intuitively it seems reasonable to propose that individuals are more favorably evaluated when associating with a partner of high, rather than low, status.

To summarize, information about attractiveness, personal warmth and status has been shown to influence the evaluation of individuals. In general, when each of these traits is examined separately higher levels of each generate more favorable individual evaluations. This research shifts the focus of trait investigation from those possessed by the individual being evaluated to those possessed by the individual's partner. We attempt to begin exploring how the evaluation of an individual is influenced by a partner's level of attractiveness, personal warmth, and status.

METHOD

Subjects And Procedure

Due to the exploratory nature of this research a small sample was used. Ten female and 10 male graduate students were asked to voluntarily complete experimental questionnaires.

Stimulus Materials

Researchers have used written scenarios, or vignettes, to ascertain how subjects would react in given situations (Gross, Mason, and McEachern, 1958). In this study questionnaires were used which contained vignettes about particular target individuals interacting with their romantic partners.

To compose the vignettes, ten pretest subjects (who did not participate in the final study) completed a preliminary questionnaire in which they rated (a) the level of attractiveness of various physical descriptions (e.g., of a fashion model or of an individual who has a significant weight problem), (b) the level of personal warmth displayed by various actions (e.g., by giving a partner a thoughtful gift or by yelling at a partner in public), and (c) the level of status of various job descriptions (e.g., of a company vice president or of a fast food worker). All ratings were made on a scale of one (1 = low) to ten (10 = high).

Mean item ratings of below and above the arbitrarily chosen cut-off of five were respectively designated as negative and positive descriptions of attractiveness, personal warmth, and status. Then, questionnaire vignettes were constructed using the different descriptions to convey information about the target individual's romantic partner.

Below is a sample vignette with a partner who is of low attractiveness, personal warmth, and status. The target individual is John.

John's girlfriend stopped by to ask if he could give her a ride from the fast food stop where she worked to her Weight Watchers meeting that evening. When John agreed, she said, "Don't make me wait."

It should be noted that, departing from the procedures used in previous research in which information about attractiveness was presented visually, the presentation of all traits was standardized by being presented in verbal print form. This procedure, in addition to presenting the traits in an identical manner, allowed us in this preliminary effort to avoid some of the confounds which may stem from subjects' different opinions of what is considered visually attractive. In future research photographs or film may be used to more fully explore how physical attractiveness interacts with personal warmth and status.

Sixteen vignettes were written to rotate all combinations of the variables. Two randomizations of the vignettes were made to form two versions of the questionnaire. Finally, the gender of the subject was noted in order to examine any differences in evaluation style. Thus, this is a gender of target individual (2) X partner's level of attractiveness (2) X partner's level of personal warmth (2) X partner's level of status (2) X gender of subject (2) within subjects design.

Dependent Variables

After reading each vignette the subjects were asked to rate how favorably the target individual would

be evaluated on a scale of one (1 = extremely unfavorably) to ten (10 = extremely favorably).

RESULTS AND DISCUSSION

A comparison of means was conducted across the levels of attractiveness, personal warmth, and status, and across both the gender of the subject and of the target individual, retaining subject as a factor. An initial analysis showed that there were no significant effects of the gender of the target individual. Therefore, the data were collapsed across this variable and subsequent analysis were conducted across the factors of attractiveness, personal warmth, status, and the gender of the subject.

Target Individual Evaluations

There were two interactions in the data, one which highlights the differences across levels of personal warmth and status, the other which accentuates how male and female subjects differentially react to the attractiveness of the partner.

Level of personal warmth and level of status. As displayed in Figure 1, the evaluation of the target individuals differed significantly across the partners' levels of personal warmth and status: $F(1, 319) = 4.59, p < .001$.

This interaction qualifies a significant main effect of personal warmth whereby the subjects more favorably evaluated target individuals when their partners had high, versus low, levels of personal warmth: $M = 6.11$ and $M = 4.67$, respectively, $t(319) = 9.47, p < .001$. In addition, subjects evaluated target individuals more highly when their partners possessed high personal warmth and low status than when their partners possessed high personal warmth and high status: $M = 6.43$ and $M = 5.78$, respectively, $t(319) = 3.16, p < .05$.

According to the study findings, individuals who want to be evaluated favorably should associate with partners who have high levels of personal warmth. There also appears to be a hierarchy in the importance of different traits: While there was a main effect of personal warmth, status had only interactive effects.

Somewhat counter-intuitively, low rather than high partner status increased evaluations when paired with high personal warmth. To gain insight into this finding one subject was asked to explain verbally the reasoning behind his provided responses. The subject stated that the described target individuals who associated with partners of high status could be accused of using their partner to obtain prestige and power. In contrast, target individuals who had partners of low status were not as suspect; for this subject, high ratings were given to target individuals who had partners with low status and high warmth due to the assumption that the target individual was truly caring without ulterior motives. As we do not have open ended measures of the subjects' thoughts we can only speculate that perhaps the interaction of partner warmth and status conveys information about an individual's interpersonal motives and sincerity.

FIGURE 1
Evaluation of Target Individual: Level of Personal Warmth by Level of Status Interaction

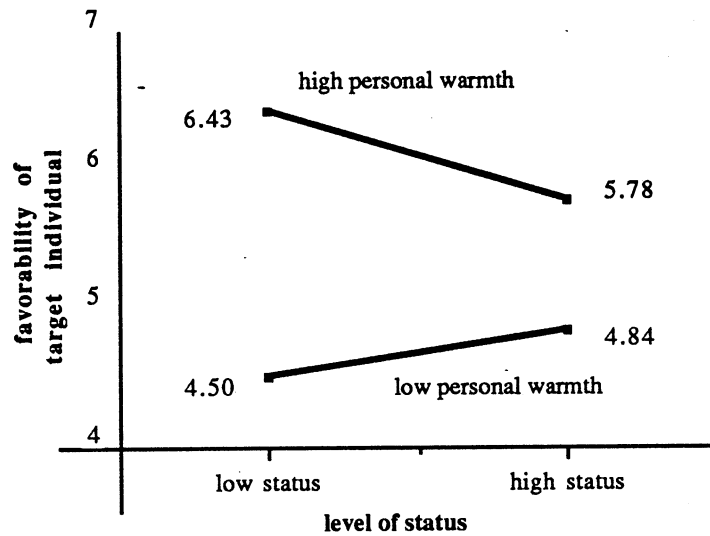
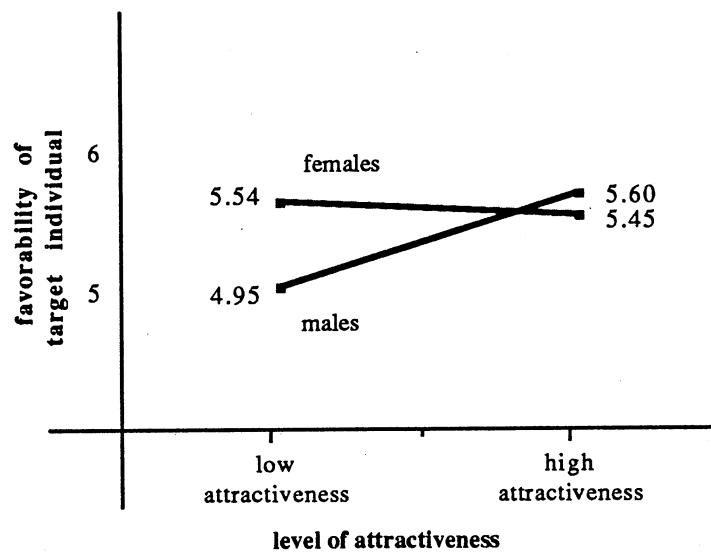


FIGURE 2
Evaluation of Target Individual: Gender of Subject by Level of Attractiveness Interaction



Gender of subject and level of attractiveness. As illustrated in Figure 2, the target individual was evaluated differently by the male and female subjects according to the level of attractiveness of the partner: $F(1, 319) = 9.84, p < .001$. Post-hoc comparisons reveal that males evaluated target individuals with partners who had low levels of attractiveness more unfavorably than did females: $M = 4.95$ and $M = 5.54$, respectively, $t(159) = 2.47, p < .05$. In addition, the male subjects evaluated target individuals less

favorably when the corresponding partners had low, versus high, levels of attractiveness: $M = 4.95$ and $M = 5.60$, respectively, $t(159) = 2.72, p < .05$.

Hence, male subjects were more likely than females to consider the level of attractiveness of the partner when evaluating the favorability of the target individual. This finding is similar to that of past research in which males place greater value than females on a target individual's physical attractiveness when selecting a partner (see Feingold, 1990).

However, as we found no differences based upon the gender of the *stimuli*, these research findings differ from that of past studies in which male individuals were evaluated more favorably when associating with attractive partners (Harnett and Elder, 1973; Bar-Tal and Saxe, 1976).

FUTURE RESEARCH

There are many ways to test the generalizability of these results by improving and expanding upon this initial effort. For example, while information about high and low traits levels was manipulated in this study the weight of these factors was not controlled. To convey high status in one vignette the partner was described as a company vice president, while the same trait was conveyed in another vignette by describing the partner as a student at an ivy league college. Some subjects might view the former as higher in status while others might favour the latter. In future research care can be taken to ensure that the weights of each factor are similarly valued for all individuals.

In addition to testing the generalizability of these results, having found some evidence of partner carry-over effects, another future endeavour is to investigate why the different findings occurred. For example, females were less likely to evaluate target individuals based upon the partner's attractiveness than were males. Perhaps the different genders truly do place different emphases on the value of physical attractiveness. If so, it would be interesting to investigate when and how this difference develops, how persistent and pervasive the difference is, and what can be done to lessen any negative consequences resulting from this discrepancy.

Or, equally interesting is the possibility that the genders similarly emphasize this factor but approach the evaluation task differently, with females trying particularly hard to be unprejudiced by responding to descriptions with attractive and unattractive partners as equivalently as possible. To test for this "matching" effect, these results may be contrasted with those of a study using a between subjects design in which subjects are placed in conditions to read about only attractive or unattractive partners.

In addition, these findings pertain to circumstances in which information is conveyed verbally (e.g., via print or radio media). Individuals may react quite differently to visual or visual/verbal data. For example, unlike the results of previous efforts (e.g., Bar-Tal and Saxe, 1976) the findings of this study do not differ across the gender of the target individual. That previous studies were conducted with visual stimuli suggests that individuals' evaluations are less sensitive to biases caused by gender-based stimuli when the information is provided verbally. This visual/verbal difference may have interesting implications for the manner in which information is conveyed in pictorial versus written/spoken materials. If the evaluation of an individual is less subject to gender biases when the information is conveyed via nonvisual media—even when the gender of the individual is identified—then this media should be used

when evaluations are to be made without regard to gender differences. It would suggest, for example, that the practice of attaching photographs to applications (e.g., as requested by some college admissions offices) should be eliminated. Insights into how information is conveyed visually and nonvisually can be gained by asking subjects to respond to open ended thought questions.

In short, many steps may be taken to improve upon this initial effort. These include constructing the stimuli with equal attribute weighting, using a between subjects experimental design, incorporating visual as well as verbal information, and requesting that subjects respond to open ended thought questions.

CONCLUSION

The findings of this exploratory effort suggest that the traits of partners carry over to influence the evaluation of individuals with whom they associate. The three traits of attractiveness, personal warmth, and status, and the gender of the evaluator all influenced the evaluations. Future research will attest to the generalizability of these findings across different evaluation tasks and different sources of trait information.

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Effects of Involvement, Arousal, and Pleasure on the Recognition of Sponsorship Stimuli

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ABSTRACT

This paper examines the effects of involvement with a sports event, and arousal and pleasure in reaction to this event, on the recognition of embedded sponsorship stimuli. A study shows that involvement with a soccer game has a curvilinear effect on the recognition of embedded billboards. Arousal in reaction to the game has a negative effect on this recognition. These effects are distinct from each other. Pleasure did not have the expected positive effect. It was also observed that the recognition of the sponsorship stimuli was significantly lower among females than among males.

INTRODUCTION

Sponsorship can be defined as "the provision of resources (e.g., money, people, equipment) by an organization directly to an event or activity in exchange for a direct association to the event or activity" (Sandler and Shani 1989, p.10). Sports Sponsorship as a communication tool has recently become very popular among marketers. According to Meenaghan, (1989), in 1987 in the United States, 35,000 companies spent \$1.75 billion to sponsor sporting events, and in 1989 worldwide sponsorship expenditures were valued at \$4.1 billion. Marketing practitioners' marked interest in sponsorship communication (e.g., Otker 1988; Ryssel and Stamminger 1988) is in sharp contrast with academic researchers' lack of attention (Gardner and Shuman 1986; Meenaghan 1983; Sandler and Shani 1989).

One of the main reasons for the practice of sponsorship is the achievement of media coverage (Abratt, Clayton, and Pitt 1987). Hence, sponsorship effectiveness is most often expressed in terms of the amount of media coverage generated through it (Waite, 1979; Mintel 1986). However, while sponsorship stimuli (e.g., billboards) embedded in sports events can receive dramatic exposure (see e.g., Welling 1986), there is evidence that attention to and memory for these stimuli are, in fact, very limited (Nebenzahl and Hornik 1985; d'Ydewalle et al. 1987). Therefore, there is a need to better understand the factors that affect the processing of sponsorship stimuli and, consequently, moderate the effectiveness of their exposure.

The purpose of this paper is to explore how involvement with a sponsored event, and affective reactions to this event, moderate the effectiveness of

exposure to embedded sponsorship stimuli. The measure of effectiveness considered here is the subsequent recognition of these stimuli. The effects of event-induced affective reactions are studied along two main dimensions, pleasure and arousal (cf. Mehrabian and Russell 1974). The literature about the effects of involvement, arousal, and pleasure is briefly reviewed, leading to three hypotheses. The results of a study testing these hypotheses are then reported and discussed.

SPONSORSHIP STIMULI IN CONTEXT

The selection of events to sponsor is partly determined by the assumption that sponsorship stimuli will be processed somewhat differently as a function of the events in which they appear. This issue parallels the stream of research that relates the context of an ad to its performance (e.g., Axelrod 1963, Thorson et al. 1985). For instance, Pavelchak, Antil, and Munch (1988) have recently investigated the effects of emotional experience induced by a Super Bowl game on the recall of embedded commercials. They found that arousal induced by the game decreases the number of commercials recalled. There is, however, a critical difference between commercials and the type of stimuli considered in this study: sponsorship stimuli (e.g., billboards around a soccer field, brand names on racing cars, logos on team players' shirts) *do not interrupt* the programs in which they are embedded. Therefore, the issue is to determine how factors related to the processing of a sports event affect the *concurrent* processing of sponsorship stimuli. Three variables are considered here: 1) involvement toward the sponsored event, 2) arousal in response to this event, and 3) pleasure when watching the event. Although involvement and arousal are strongly correlated, especially in a sports context, it is suggested here that they have distinct effects on the processing and subsequent recognition of sponsorship stimuli.

Effect of Involvement

Consumers' processing of a sponsored event is influenced by their motivation, ability, and opportunity to process this event (cf. Batra and Ray 1986; MacInnis and Jaworski 1989). These factors should also affect the concurrent processing of any embedded stimuli. Motivation to process information is often referred to as *involvement* with the informational object (e.g., Celsi and Olson 1988; Petty, Cacioppo, and Schumann 1983). This motivational state is governed by the perceived relevance of the target object (Greenwald and Leavitt 1984; Zaichkowsky 1985). Consistent with Celsi and Olson (1988) and Houston and Rothschild (1978), it is proposed that the phenomenological experience of involvement with a particular sponsored event results from the combination of enduring (or intrinsic) and situational sources of personal relevance. For

¹ The data reported in this paper were collected while the author was at the Catholic University of Mons (FUCAM, BELGIUM). The author is indebted to Michel Bomboir for his assistance at various stages of the study and to Richard Celsi, Christian Derbaix, Susan Fournier, Rich Lutz, Piet Vanden Abeele and Luk Warlop for helpful comments on earlier drafts of this paper.

instance, while an individual may be involved with soccer in general or with a specific team in particular (i.e., enduring involvement), situational factors such as the opponent (e.g., two teams from the same city), the stakes (e.g., a World Cup final), or the score (e.g., 3-3) can increase or decrease the perceived personal relevance of a given game. This perceived personal relevance, or "felt involvement" (Celsi and Olson 1988), will influence the processing of the event, and thereby, the processing of the sponsorship stimuli.

Consistent with Mitchell (1979;1981), (felt) involvement with a sponsored event is conceptualized as having both intensity and directional properties, each exerting a different effect on the processing of embedded stimuli. The more a person is involved with say, a soccer game, the more *intense* his/her processing of the game (cf., Burnkrant and Sawyer 1983). At low levels of involvement, little attentional capacity (effort) will be allocated to the event as a whole. Because they are inlaid in the event, sponsorship stimuli should also receive little attention. As involvement increases more overall attention is devoted to the event and also, as a result of their embeddedness, to the sponsorship stimuli.

However, involvement also has a *directional* property. Because of limited cognitive capacity (Kahneman 1973), as involvement or motivation to process reaches high levels, attention becomes more focused on the relevant source of information (Celsi and Olson 1988; MacInnis and Jaworski 1989), i.e. the game itself, and away from irrelevant information such as the sponsorship stimuli. Thus, at high levels of involvement, attentional selectivity should overcome the positive effect of processing intensity on the processing of sponsorship stimuli. Highly involved people are no longer "willing" to process irrelevant billboards when watching a soccer game. Therefore, a curvilinear relationship is hypothesized between audience involvement with a sponsored event and the processing of sponsorship stimuli. This should be reflected on people's ability to recognize the stimuli in a subsequent task.

- H1 Felt involvement with a sponsored event has an curvilinear (inverted-U) effect on the recognition of embedded sponsorship stimuli.

This curvilinear relationship between felt involvement and the recognition of sponsorship stimuli is essentially driven by people's *motivation* to process the event. It is argued that this effect is distinct from the effect of arousal, discussed here below.

Effect of Arousal

Sports events can induce intense affective reactions among audience members. The intensity dimension of affective reactions is often operationalized as arousal (e.g., Clark 1982; Pavelchak et al. 1988). Arousal refers to the activity of the autonomic nervous system, particularly in its sympathetic division (Mandler 1975). Its experience is defined as a feeling state varying along a single

dimension from drowsiness to frantic excitement (Mehrabian and Russell 1974, Humphreys and Revelle 1984).

In dual task studies, heightened arousal has been shown to impair performance on the secondary task (Eysenck 1982). Easterbrook (1959) suggested that heightened arousal produces an attention narrowing process, restricting the range of cue utilization. Primary task cues are attended to at the expense of secondary task cues. This attention narrowing process results from capacity limitations associated with high arousal. Two explanations can account for this increased attentional selectivity. First, it has been proposed that arousal cues arousal-related material in memory (Clark 1982; Clark, Milberg, and Ross 1983). Because more, and more diverse, material enters consciousness, there is a decrement in the amount of processing capacity available (Worth and Mackie 1987). It is also plausible that arousal in the autonomic nervous system generates internal cues that compete with external cues for the limited attentional capacity in the conscious field (Mandler 1975).

A parallel can be drawn between the dual task paradigm and the concurrent processing of a sponsored event and of embedded sponsorship stimuli. When watching sports event, limited processing capacity must be shared by the event itself (e.g., a tennis match) and other sources of information including sponsorship stimuli. As arousal increases, available processing capacity decreases. Because of this reduced *ability* to process information, attention is narrowed to the game itself. Therefore, arousal induced by a sponsored event will have a negative effect on the processing of embedded sponsorship stimuli. This reduced processing of the stimuli should result in a lower ability to subsequently recognize them.

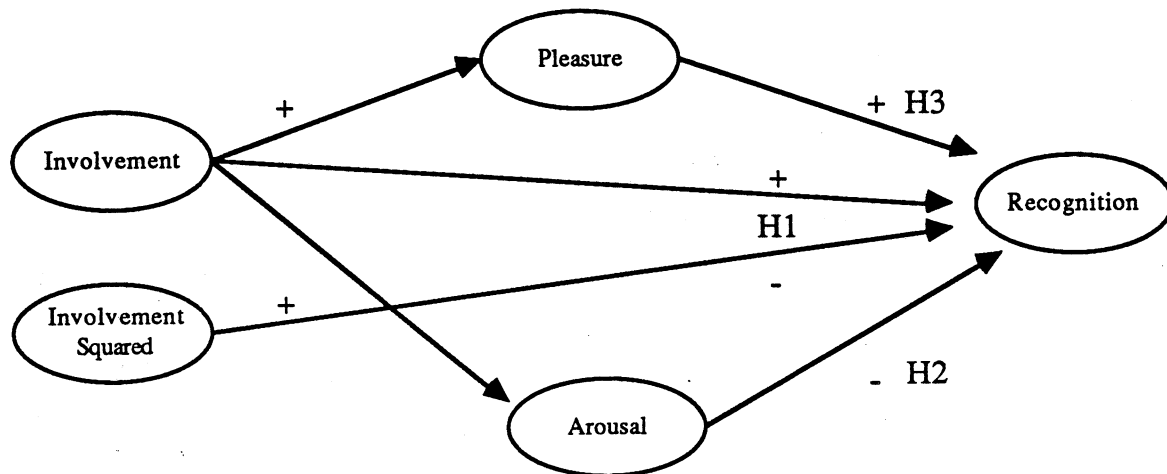
- H2 Arousal induced by a sponsored event has a negative effect on the recognition of embedded sponsorship stimuli.

High involvement with a sporting event should result in higher arousal in reaction to this event. People to whom the event is personally relevant should experience more intense affective reactions to it. Nevertheless, it is speculated that the curvilinear effect of involvement is distinct from the negative effect of arousal. Conceptually, whereas the former reflects people's motivation to process information, the latter results from their *ability* to process such information (Sanbonmatsu and Kardes 1988).

Effect of Pleasure

Besides their intensity, affective reactions can be characterized by their polarity (i.e., pleasure versus displeasure). Sporting events have the potential to create highly polarized affective states among audience members. It has been suggested that people learn more material when in a positive mood than when in a negative mood. For instance, Goldberg and Gorn (1987) observed that commercials were better remembered when inserted in a happy TV program than when inserted in a sad program. Mayer (1986) proposes that negative affective states impede

FIGURE 1
Hypothesized Relationships Among Involvement, Arousal, Pleasure, and Recognition of Sponsorship Stimuli



learning by decreasing motivation and inducing the interjection of negative thoughts. Isen (1984) suggests that positive affective states produce changes in cognitive organization that enable a more efficient processing. Specifically, people in a positive affective state categorize material in fewer but broader categories. This use of broader categories allow them to organize the material more efficiently and consequently to memorize it better. In line with these arguments, it is hypothesized that event-induced pleasure will have a positive effect on the recognition of sponsorship stimuli.

H3 Pleasure experienced in reaction to a sponsored event has a positive effect on the recognition of embedded sponsorship stimuli.

The path diagram in Figure 1 summarizes the hypothesized effects of involvement, arousal, and pleasure. Although they are not central in this study, the expected relationships between these independent variables are also presented. It is anticipated that both arousal and pleasure will be enhanced by an increase in felt involvement. As already stated, people to whom the sporting event is personally relevant should react more intensely than people to whom the event is less relevant. Also, although highly involved people might feel displeasure if their favorite team or player is losing, on average, watching a sporting event should be a more pleasurable experience to involved viewers than to noninvolved ones. Pleasure and arousal are depicted as uncorrelated because they are conceptually orthogonal constructs (Russell, Weiss, and Mendelson 1989). However, a positive correlation is sometimes observed between them (e.g., Pavelchak et al. 1988). An artificial variable, the square of felt involvement, is included to express the curvilinear effect of involvement on the recognition

of sponsorship stimuli (H1). Felt involvement and its square are described here as uncorrelated, which is expected if the former is normally distributed and expressed in deviation form. Arousal will decrease the recognition of sponsorship stimuli (H2); pleasure will increase it (H3).

METHOD

Overview. Eighty-five undergraduate students at a Belgian university took part in the study to fulfill a course requirement. They watched, in a single session, a 25-minute edited version of an unaired recent soccer game with embedded billboards. After viewing the game, subjects were administered a surprise recognition test concerning the embedded billboard.

Material. Given the objectives of the study, it was necessary to generate sufficient involvement, arousal, and pleasure among the subjects. The perceived relevance of the material to the subjects was enhanced in three ways. First, the selected game concerned a confrontation between two of the most prestigious Belgian teams. Second, it was known in advance that the game would not be broadcast prior to the study, except for short excerpts during TV news. (This was also essential for the internal validity of the study.) Finally, the study took place only six days after the actual game, and before either team had played another game. A full recording with original commentaries was made available by Belgian French speaking Television (RTBF). The recording was professionally edited in order to select the most interesting sequences (as in real televised summaries) and to control exposure to the billboards. In order to obtain sufficient power (Sawyer and Ball 1981), the edited program was 25-minute long (i.e., much longer than usual summaries).

Procedure. The study was run in a single session in order to minimize communication effects. The projection of the stimulus material took place in a

conference hall with excellent viewing facilities. The subjects were first assigned well-spaced seats, and then given the following cover story: "The Belgian Soccer League has recently observed a steady increase in the attendance at the matches of the Top League Championship (a slide was projected to support graphically this true assertion). The Soccer League attributes it notably to increased quality of the games resulting in a higher potential to interest the viewer. Our study aims at analyzing the ability of the matches to induce interest among TV viewers". They then completed a questionnaire concerning their possible "centers of involvement" (i.e., soccer in general, or a team in particular), their level of enduring involvement toward each "center", and their knowledge of soccer. They were also questioned about their acquaintance with the particular game (e.g., unseen, seen portions during TV news, attended the game).

After the first booklet had been collected, subjects were shown the game on a giant screen. They were instructed to imagine that they were in their living room watching sports news on TV.

After the projection, a second booklet containing the independent variables measures was distributed. Subjects were asked to report their felt involvement while watching the game and their affective reactions (pleasure and arousal) to it. To measure any demand characteristics, control questions were included about the objectives of the study. After the second booklet was collected, the recognition task was administered. After completing this task, subjects were asked to estimate how well they performed on it. They also explained why they thought that their recognition performance was good or poor.

Independent Variables. Zaichkowsky's (1985) 20-item PII scale was adapted to better capture the phenomenological nature of felt involvement. Zaichkowsky's antonyms (e.g., "important/unimportant") were inserted into small sentences such as "Watching this game has been important/unimportant to me" and "I have found this game boring/interesting." In order to measure experienced pleasure and arousal, the scales developed by Mehrabian and Russell (1974) were adapted in a similar way. For example, the 6-item pleasure scale included the item "While watching the game, I was happy/unhappy." The 6-item arousal scale included items such as "During the game I was jittery/dull". All three scales were presented in a single random order with end-points counterbalanced. Because the effects of involvement are easily confounded with the effects of knowledge, the latter was also measured in this study. Thirteen multiple-choice questions about soccer and the teams, with various degrees of difficulty, were developed. The measure of knowledge was simply the number of correct answers.

Dependent variable. Recognition of the sponsorship stimuli was measured on the basis of 8 billboards that were clearly visible during the program (mean duration of exposure = 118.5 sec). Each of these 8 billboards was projected to the subjects for 10 seconds among 3 other billboards that did not appear in the program. No other cue but the billboard itself

(e.g., a player, a portion of the stadium) was projected. The subjects were asked to indicate which of the billboards presented in groups of 4 they recognized as appearing during the program. They were instructed not to rely on their beliefs nor to attempt to guess. The recognition score was simply the number of correct answers.

RESULTS

Control of Artifacts

Control questions about the objectives of the study were asked just after the projection of the game and before the recognition test. They revealed that no subject guessed the true purpose of the study. After the recognition test, as a second control, subjects were asked to explain their recognition performance. Seven subjects explicitly attributed their good performance to their acquaintance with the stadium or with the home team; they were thus disregarded for subsequent analyses. Two other subjects were dropped because of evident carelessness. The final sample was composed of 76 subjects, 35 males and 41 females (mean age = 19.2). While 16 of these subjects had been previously exposed to small portions of the game broadcast during TV news, there was no significant effect of this previous exposure on the recognition score ($F(1,73) = .09$, $p > .77$). Hence, these 16 subjects were retained in the analyses.

Reliability and Discriminant Validity of the Independent Variables

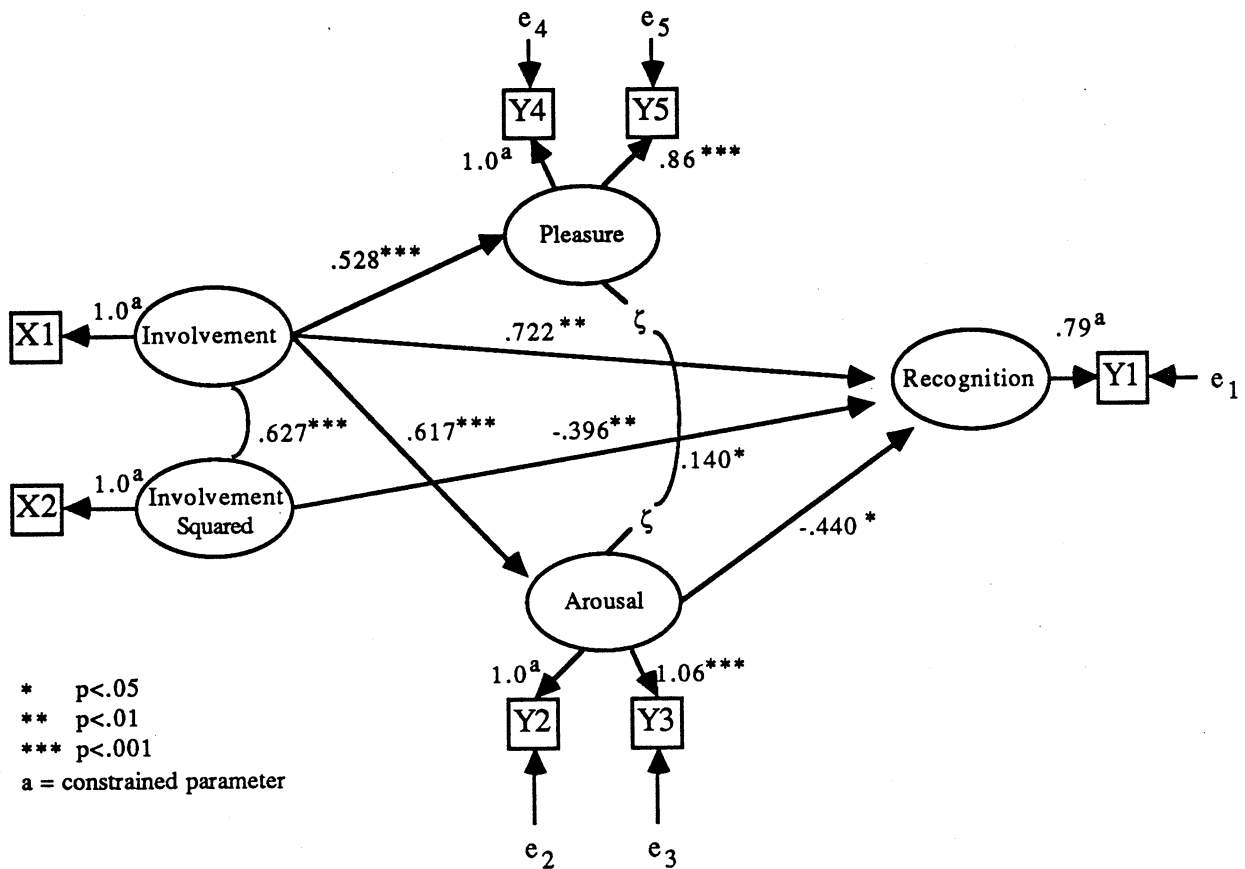
Scales for felt involvement (Cronbach's $\alpha = .98$), arousal ($\alpha = .86$), and pleasure ($\alpha = .88$) exhibited high internal consistency. To test the discriminant validity of the felt involvement, arousal, and pleasure constructs, the 32 items measuring them were factor-analyzed. Because involvement and arousal were anticipated to be highly correlated, an oblique rotation (OBLIMIN) was applied to the extracted factors. A three-factor solution accounted for 72% of the total variance.

The rotated factor loadings (not reported here because of space limitation, but available from the author) clearly indicated that three different constructs were indeed measured. All felt involvement items loaded on factor 1, pleasure items on factor 2, and arousal items on factor 3. As anticipated, factor 1 (involvement) and factor 3 (arousal) were strongly correlated ($r = .462$). The correlation between factor 1 and factor 2 (pleasure) was $r = .368$. Although pleasure and arousal are theoretically orthogonal (Russell, Weiss, and Mendelson 1989), factor 2 and factor 3 were positively correlated in this study ($r = .264$).

Effects of Involvement, Pleasure and Arousal

To review, felt involvement was hypothesized to have a curvilinear effect on the recognition of sponsorship stimuli (H1). Arousal was hypothesized to have a negative effect, distinct from that of felt involvement (H2). Pleasure was hypothesized to have a positive effect on recognition (H3). The hypothesized relationships depicted in Figure 1 were

FIGURE 2
Observed Relationships Among Involvement, Arousal, Pleasure, and Recognition of Sponsorship Stimuli



tested using LISREL-VI maximum likelihood procedure (Jöreskog and Sörbom, 1984). It is recognized that the inclusion of a squared variable (felt involvement squared) violates the assumption of multivariate normal distribution made by maximum likelihood estimation. However, a previous study (Hayduk 1987) also using a squared variable in LISREL, found maximum likelihood estimates to be little affected by this violation. Hence, maximum likelihood estimates are reported here. (generalized least squares estimates were very similar.)

Rather than directly path-analysing the observed summated scores (see e.g., Pavelchak et al. 1988), it was judged preferable to take measurement error into account. The recognition score had an estimated reliability of KR-20 = .62. Following common practice, this measurement error was introduced in the model by setting the corresponding factor loading equal to the square root of the reliability estimate and the measurement error equal to 1 minus this estimate. Although both pleasure and arousal were measured with good internal consistency (alpha = .88 and .86, respectively), it was decided to split each of the two 6-item scales into two 3-item scales to have two separate

measures of each construct. Finally, since felt involvement had a very high reliability (alpha = .98), it was assumed that the observed summated score was an error-free single indicator of the latent construct. This allows to consider the squared involvement score to be itself an error-free measure of the latent squared factor. (This is clearly a simplifying assumption, but it would also have been made had path analysis or multiple regression been used instead.)

The final estimated model is depicted in Figure 2. It shows a very good fit to the data (Chi-square (df=10)= 13.94, p > .18), goodness-of-fit index = .955, root mean square residual= .042). Felt involvement had a strong positive effect on experienced arousal (.617, t= 6.88, p < .001). It also increased subjects' pleasure experiences when viewing the game (.528, t= 5.39, p < .001). There was a residual correlation between pleasure and arousal that was not accounted by the structural model (.140, t = 2.01, p < .05). This is probably because, on average, subjects experienced more pleasure than displeasure in reaction to the game (mean = 27.07 on a scale from 6 to 42). This resulted in an overall polarized affective reaction that was accompanied by heightened arousal.

In support for the first hypothesis, the effect of felt involvement on the recognition of the stimuli was clearly curvilinear. The path from (unsquared) felt involvement to recognition was positive (.722, $t = 3.19$, $p < .01$), whereas simultaneously the path from felt involvement squared to recognition was negative (-.396, $t = -2.26$, $p < .01$). It can be observed that felt involvement, although expressed in deviation from its mean, was strongly correlated with its square. This unexpected correlation probably stemmed from the skewness of this sample's felt involvement distribution. Even when the effects of felt involvement and its square were accounted for, arousal significantly decreased the recognition of the stimuli (-.440, $t = -1.898$, $p < .05$). This effect of arousal corroborates the second hypothesis. However, it is possible that involvement has a curvilinear effect on recognition only because it has both a positive direct influence and a negative indirect influence mediated by arousal. To test that mediation explanation, the direct path from squared involvement to recognition was removed, resulting in a nested "mediation" model. This mediation model fitted the data significantly worse than the model depicted in Figure 2 (Chi-square difference ($df=1$) = 4.98, $p < .05$). Adding a path from felt involvement squared to arousal did not improve the fit of the mediation model (Chi-square difference ($df=1$) = 1.01, $p > .30$). Therefore, it appears that the curvilinear effect of felt involvement and the negative effect of arousal are distinct from each other. Contrary to the prediction of third hypothesis, the effect of pleasure on recognition was not significant ($t = .615$, $p > .25$). The corresponding path was consequently dropped. Felt involvement (squared and unsquared) and arousal accounted for 22% of the variance in the recognition of sponsorship stimuli.

Effects of Knowledge and Gender

An alternative interpretation of the data is that the effects of felt involvement are confounded with the effects of knowledge. Therefore, a measure of subjects' knowledge of soccer and of the teams was taken before they saw the program. This knowledge index had a strong internal consistency ($KR-20 = .84$). As could be expected (Celsi and Olson 1988; Sujan 1985), it was strongly correlated with felt involvement ($r = .595$, $p < .001$). To test for this potential confound, a knowledge factor (adjusted for measurement error) was included in the causal model as a predictor of recognition. Its effect on recognition was not significant ($t = .885$, $p > .15$).

Marked gender effects were also observed. As could be expected, females had less knowledge of soccer and of the teams than males ($F(1,74) = 27.465$, $p < .001$, Omega-squared = .26), and reported a lower level of felt involvement ($F(1,74) = 18.826$, $p < .001$, Omega-squared = .19). Females were also less aroused ($F(1,74) = 4.417$, $p < .039$, Omega-squared = .043), but their pleasure when watching the game did not differ significantly from males ($F(1,74) = 2.457$, $p > .12$). Females scored consistently poorer ($M = 2.65$) than males ($M = 3.80$) on the recognition test ($F(1,74) = 8.195$, $p < .01$). Unexpectedly, their performance was still significantly lower when; previous exposure to

the game, knowledge, arousal, felt involvement, and its square were entered as covariates ($F(1,67) = 4.053$, $p < .05$, Omega-squared = .037).

CONCLUSION AND DISCUSSION

In a recent editorial, Lutz (1991) called for more research on substantive consumer behavior issues that are important to someone other than the researchers themselves. Sponsorship communication is important to marketers. If they are to continue to rely on generated exposure as a measure of sponsorship effectiveness, understanding what happens *beyond* this exposure is clearly needed. In this study, extensive exposure to the billboards yielded only limited effects on recognition. On average, the billboards were visible for 118.5 seconds. Yet, on average, they were recognized by only 39 percent of the subjects (although the a priori probability to choose the correct billboard in a set of four is 25%). This replicates the findings of previous controlled studies (d'Ydewalle et al. 1987; Nebenzahl and Hornik 1985). That billboards achieved only limited recognition stresses the need to identify potential influences on the processing of sponsorship stimuli. Three of these were studied here, (felt) involvement, arousal, and pleasure. Felt involvement was found to have an inverted-U effect on the recognition of sponsorship stimuli, arousal a negative effect, but pleasure no effect. Involvement and arousal accounted for a fairly large proportion of recognition variance. This has some implications both for the selection of events for sponsorship and for the evaluation of sponsorship effectiveness. For a given audience size, highly involving and arousing events might not offer the sponsor his/her best advantage. On the other hand, it is also true that potentially involving and arousing events are likely to attract a larger audience.

Pleasure did not affect the recognition of the billboards. The effects of pleasure on memory for billboards may be too subtle to be captured in a recognition task. It may also be that the incidental learning of billboards does not lend itself to the processing efficiency principles suggested by Isen (1984). These principles may apply only to more goal-directed processing. In a related context, it was also found that pleasure experience when watching a football game did not increase recall for the embedded commercials (Pavelchak et al. 1988).

The distinction between involvement and arousal needs to be clarified, especially when involvement is defined as a state of arousal or activation (e.g., Cohen 1983; Mitchell 1979; Rothschild 1984). For instance, Thorson et al. (1985) purportedly measured and manipulated involvement with TV programs. However, both their manipulation of program involvement (sexual program segments) and their measurement of involvement (cortical arousal recorded by EEG) could be interpreted in terms of arousal. In this study, a distinction was drawn between (felt) involvement and (physiological) arousal. One difference between these two constructs is that involvement is object-specific (e.g., Celsi and Olson 1988; Mitchell 1979; Zaichkowsky 1985), whereas arousal is nonspecific (Derryberry 1988;

Eysenck 1976) and can be misattributed (cf. Schachter and Singer 1962). This distinction between involvement and arousal seems to exhibit construct validity, even in a context where these two constructs are likely to be confounded. A factor analysis indicated that distinct factors underlie the felt involvement and arousal scales. Moreover, this study shows, in a nomological sense, that involvement and arousal have distinct effects on a critical dependent variable. Conceptually, felt involvement reflects people's motivation to process the event and the embedded stimuli, whereas arousal affects their ability to do so (cf. Sanbonmatsu and Kardes 1988).

Males unexpectedly outperformed females on the recognition task. This gender effect remained significant when arousal, felt involvement, knowledge, and previous exposure to the game were controlled. A post hoc explanation can be suggested for this gender effect. As reflected by their knowledge scores, females were presumably less expert than males in processing soccer. A well known consequence of expertise in a task is a reduction of the amount of cognitive effort required to perform the task (cf. Alba and Hutchinson 1987). Therefore, processing the game (as demanded by the experimental task) should have been comparatively more effortful for females than for males. As females invested comparatively more effort in processing the game, less capacity was available for the processing the sponsorship stimuli. For instance, Navon (1984; Navon and Gopher 1979) has argued that an increased processing efficiency in the performance of a primary task should result in enhanced performance on a concurrent task that draws on the same pool of resources. This processing-expertise explanation of the gender effect is worth testing in future research.

Several limitations of this study deserve mention. First, the independent variables were not experimentally manipulated. Hence, third-variable explanations cannot be fully excluded. It should be noted, however, that a knowledge interpretation of the results has been ruled out. Second, the type of sponsorship stimuli investigated here is restricted to billboards. Other stimuli (e.g., brand names on players' shirts or on racing cars) that are closer to the audience members' "center of involvement" may be affected differently by involvement and arousal. For instance, in a racing context, it is possible that stimuli on the cars, provided that they are visible, may actually benefit from the increased focus of attention created by high involvement and arousal. In contrast, this study suggests that signs around the circuit should be negatively affected. The moderating effect of the proximity of the stimuli to the audience's center of involvement awaits future research. Third, no measure of focused attention was collected. Therefore, it is difficult to ascertain whether the observed curvilinear effect of involvement and the negative effect of arousal resulted, as hypothesized, from increased attentional selectivity. Fourth, background factors such as subjects' familiarity with the brands advertised on the billboards were not controlled. This is a common drawback of using real marketing stimuli instead of artificial ones. However, to have biased

these result, these background factors should have had very specific interactions with the independent factors. Finally, this study only considered conscious processing of and explicit memory for the stimuli. However, there is growing evidence that even nonattended material that is subconsciously processed can be influential (e.g., Janiszewski 1990). The subconscious processing effects of sponsorship stimuli deserve future research.

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The Relationship Between Distractor Similarity and the Recognition of Print Advertisements

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ABSTRACT

This paper reports the findings of an investigation of the impact that distractor similarity has on the recognition memory for print advertisements. Two issues are investigated. First, the direct impact of distractor similarity on brand and claim recognition memory scores is investigated. Second, the attenuating impact of distractor similarity on the study of other variables posited to impact memory is investigated. A method for assessing distractor similarity is discussed, along with implications for advertising research.

INTRODUCTION

The use of recognition as a measure of memory has increasingly become a prominent topic in both academic and applied research (Leckenby and Plummer 1983; Stewart et al. 1985; Singh et al. 1988). Much of this interest stems from the growing concern that recognition may be more appropriate than recall for assessing certain types of advertising effects (Bettman 1979; Krugman 1972, 1985; Singh et al. 1988; Zielske 1982). The fundamental difference between these two measures is that in a recall task an individual must describe a non-present stimulus, while in a recognition task a stimulus is judged on the basis of whether it had been previously seen or heard (Bettman 1979).

Critics of recognition contend that it is a less sensitive measure for detecting differential memory effects than is recall. This belief is based on the substantially higher memory scores and resulting ceiling effects that are often associated with recognition (Haber 1970; Krugman 1979; Shepard and Chang 1967). However, the ease with which a stimulus is recognized is partially a function of the similarity between the stimulus and relevant distractor items. Specifically, researchers in cognitive psychology have shown that stimulus recognizability decreases as distractor similarity increases (Jorg and Hormann 1978; McNulty 1965; Postman et al. 1948).

Despite the potential inverse relationship between distractor similarity and the recognition of an advertisement, this issue has been largely ignored in the marketing literature. The typical approach used by advertising researchers has been to arbitrarily assess the similarity between a target stimulus and its distractors. This subjective procedure for selecting distractors creates two major problems for advertising researchers. First, the level of difficulty for a particular recognition task can not be quantified. Second, and potentially more important, a similarity bias may exist due to the inability to equate distractor similarity across advertisements and/or experimental treatments. These are critical issues that must be addressed before recognition tests can be effectively employed in advertising research (Singh and Cole 1985).

We report the findings from an experiment that examines the effect that distractor similarity has on the recognition of brands and claims presented in print advertisements. In addition, an attempt is made to determine which level(s) of similarity is (are) most sensitive to memory differences. A simple method for equalizing distractors across advertisements and treatments is also discussed.

LITERATURE REVIEW

This section is organized into two separate parts. First, the different types of recognition tests are described. Second, the extant literature that has investigated distractor similarity is examined.

Types of Recognition Tests

In general, recognition tests involve exposing subjects to target stimuli, then, after a specific length of time, the subjects are asked to select those stimuli from a list of items, some of which are distractor items (e.g., they have not been previously seen). There are essentially three different ways to administer a recognition test:

Yes/No Test. Subjects are shown a set of stimuli one at a time. For each item, subjects are asked to respond 'yes' if they have previously seen that item and 'no' if they have not. Typically, there is one distractor for every item in the original list of stimuli.

Batch-Testing. In a batch-testing recognition test all of the original stimuli and all of the distractor items are presented at the same time. Subjects are asked to select those items that they had previously seen.

Forced-Choice. In this method, subjects are asked to identify a previously seen stimulus from a list containing one or more distractor items. This task is repeated once for every stimulus on the original list. Unlike batch-testing, there is only one 'correct' response per set. When one distractor is used this is called a two-item test, when two distractors are used it is a three-item test, and so on.

An additional measure that is often obtained along with recognition is to have subjects indicate the degree to which they are confident with their responses. Confidence ratings are typically obtained via a three- to five-point scale ranging from very confident that the response is correct to not confident at all. The confidence ratings are then used to transform correct and incorrect responses into a more sensitive multi-point scale. It has been argued that this procedure contributes considerable information for data analysis. In particular, statistical analyses can be conducted on the transformed data that are free of distortions (Singh and Rothschild 1983b).

Distractor Similarity Literature

While the issue of distractor similarity is of extreme importance for measuring advertising

effectiveness, it has received surprising little attention in the marketing literature. The work that has been done in this area has been of a conceptual nature. Specifically, Singh and Rothschild (1983a) suggested that recognition scores could be lowered, and thus made more difficult, by employing very similar distractors. More recently, Singh and Cole (1985) stressed the importance of equalizing distractor similarity across test ads and treatments.

There is a body of knowledge within the cognitive psychology literature that has examined how distractor difficulty affects recognition memory. Furthermore, each type of recognition test has been used as a dependent measure. Early work by Postman et al. (1948) using a four-item forced choice recognition test showed that subjects incorrectly selected similar distractors more frequently than dissimilar distractors. McNulty (1965) found analogous results via a batch recognition test--subjects performed more poorly for similar, rather than dissimilar distractors. Using a yes/no test, Dale and Baddeley (1962) showed that stimulus recognizability decreased as distractor similarity increased.

The robustness of the distractor similarity findings is evidenced by the variety of stimulus devices that have been used to manipulate this construct. Specifically, distractor similarity has been manipulated via nonsense syllables/words (McNulty 1965; Postman et al. 1948), numbers (Dale and Baddeley 1962; Shepard and Chang 1963), line drawings (Bahrack et al. 1967; Bower and Glass 1976; Jorg and Hormann 1978), and other pictorial stimuli (Bahrack and Bahrack 1964; Nagae 1980). In all cases, distractor similarity had a significant negative impact on stimulus recognizability.

Distractor Similarity and Advertisements

The degree to which the distractor similarity findings in the cognitive psychology literature can be generalized to an advertising context is not well documented. Part of this dilemma is in measuring the similarity between distractors and advertising stimuli. In particular, measuring the similarity between distractors and specific brand names and advertising claims is a much different process than for nonsense syllables, numbers and line drawings.

In general, the measurement of target-distractor similarity in previous research studies focused on the structural relationship (i.e., what they looked like) between a target stimulus and its distractors. Conceptually, when measuring distractor similarity for words (e.g., brand names) and phrases (e.g., claims), both the structure and the meaning of these items must be compared to the target stimuli. In principle, distractors and stimuli that share comparable meanings may be judged similar even if structurally they are not, and vice-versa.

HYPOTHESES

The research project reported here had two major objectives. One of the objectives was to explore the effect that brand and claim distractor similarity have on recognition memory. The

cognitive psychology literature provides insight into this phenomenon. The following prediction is tested:

- H1: An inverse relationship will exist between brand and claim distractor similarity and recognition.

The contention that recognition tests attenuate memory differences due to task simplicity (difficulty) and resulting ceiling (floor effects), suggests that an experimental manipulation may be judged unsuccessful when this not the case. Exposure time is manipulated in this study for the purpose of creating experimental conditions where recognition differences are expected to occur (Rothschild et al. 1989). If Singh and Rothschild (1983a) are correct, making recognition tests more or less difficult by manipulating distractor similarity should affect recognition within and across exposure time treatments.

This suggests the following hypothesis:

- H2: A significant distractor similarity X exposure time interaction will exist, with recognition memory differences being eliminated as distractor similarity approaches the extremes.

Each of the above two hypotheses are investigated in the study discussed below.

METHOD

Subjects and Design

Ninety-one undergraduate students were randomly assigned to conditions in a 4 (degree of distractor similarity: very similar, similar, somewhat similar and very dissimilar) X 2 (exposure time: 15 seconds and 10 seconds) within and between factorial design. Degree of distractor similarity was the within subject factor and exposure time was the between subject factor.

Procedure

The cover story given to subjects was that a local advertising agency wanted feedback on a number of print ads that they had developed. Eight test ads were then viewed via a slide presentation in small groups of approximately 15 subjects. Order effects were controlled for by developing four different ad presentation sequences. It should be noted that a significant order effect was found for the various memory scores.

After the slides were viewed, subjects completed a three minute distractor test. The dependent measures were then administered. In a response booklet, subjects were given a verbal description of each of the products promoted in the ads that they had viewed. They were asked to identify the correct brand and claim associated with each product and to rate how confident that they were with their responses. In the response booklets, each of the four distractor similarity conditions was assigned two different ads. Order effects were controlled through the use of four different response booklets that varied

TABLE 1A
Mean Brand Similarity Score By Condition

<u>Ad Number</u>	<u>Very Similar</u>	<u>Somewhat Similar</u>	<u>Very Similar</u>	<u>Dissimilar</u>
1	1.8	2.9	3.8	6.8
2	1.9	2.9	3.7	6.6
3	1.6	2.9	3.8	6.8
4	1.8	2.9	3.7	6.8
5	1.8	2.9	3.8	6.6
6	1.9	2.8	3.8	6.6
7	1.7	2.8	3.7	6.8
8	<u>1.9</u>	<u>2.9</u>	<u>3.8</u>	<u>6.8</u>
Mean	1.8	2.9	3.8	6.8

TABLE 1B
Mean Claim Similarity Score By Condition

<u>Ad Number</u>	<u>Very Similar</u>	<u>Somewhat Similar</u>	<u>Very Similar</u>	<u>Dissimilar</u>
1	1.8	2.8	3.8	6.5
2	1.8	2.7	3.7	6.5
3	1.8	2.8	3.8	6.5
4	1.8	2.8	3.9	6.7
5	1.8	2.9	3.8	6.6
6	1.9	2.8	3.8	6.6
7	1.7	2.9	3.8	6.7
8	<u>1.6</u>	<u>2.7</u>	<u>3.9</u>	<u>6.5</u>
Mean	1.8	2.8	3.8	6.6

distractor similarity across the test ads. Finally, subjects were debriefed and were asked not to disclose the purpose of the study to others.

Stimulus Materials

Slides of color illustrated print ads were used in the study. Each of these ads had a character, a product illustration, a brand name and a claim. These ads generated differential recognition responses across exposure time in a different study.

Distractor Similarity Pretest

A relatively simple pretest was employed to develop recognition measures for each of the distractor similarity conditions. Several graduate students were given the task of generating distractor brands and claims for each of those to be used in the actual study. They were told that these distractors should fall along a similarity continuum ranging from very similar to very dissimilar. When developing these distractors, they were instructed to consider both the structural nature of the targets and their meanings. From this list 25-30 thirty brand and claim distractors were selected for each target stimulus. Using a seven-point scale (very similar to very dissimilar), a second set of pretest subjects rated these distractors with respect to specified target brands and claims. No conditions for judging target-distractor similarity were stated.

After analyzing these judgments, brand and claim distractors for each similarity condition were selected on the following basis (1=very similar and 7=very dissimilar):

1. The mean similarity score for each brand and claim had to fall in the range of 1.6-1.9 for the very similar condition, 2.6-2.9 for the similar condition, 3.6-3.9 for the somewhat similar condition, and greater than 6.0 for the very dissimilar condition.
2. Distractors with lower standard deviations were preferred.
3. For each ad, brand and claim distractors were equally similar.

Table 1A and Table 1B report mean similarity scores for brands and claims for each of the distractor conditions. There were no significant differences in similarity scores between ads within each condition. Differences in mean scores between conditions were significant.

Dependent Measures

As indicated above, each subject was exposed to one of two exposure time conditions and received

TABLE 2
F Values for Differences of Recognition Measures Across Four Levels of Distractor Similarity

	BSUM	CSUM	TSUM
Deodorant	.67	2.84	2.33
Candy Bar	6.23	1.85	5.29
Hospital	25.50	7.94	16.30
Razor	7.24	9.36	15.70
Mascara	4.36	6.99	8.46
Burglar Alarm	6.28	2.24	4.93
After Tan Lotion	1.89	5.75	3.29
Ear Wax Remover	5.38	9.79	12.10
All Ads Summed	18.90	33.00	42.65
Significant Differences*	7/9	7/9	8/9

* $F(3,87)=2.72, p<.05$

all four distractor similarity manipulations for two ads each.

Brand and Claim Recognition: Using a five-item forced choice test, subjects were asked to identify the correct brands and claims that were in the ads that they had viewed.

Confidence Rating: Confidence ratings for brand and claim responses were assessed via a five-point scale ranging from very confident to not confident at all.

A forced choice recognition test was employed in the study to limit response biases that are often associated with yes/no and batch-testing procedures (Shepard and Chang 1963). A five-item test was selected as a compromise between a two-item and a nine-item test.

RESULTS

To investigate the hypotheses, the brand recognition, brand recognition confidence, claim recognition, and claim recognition confidence scores obtained from the subjects were used to compute three summary scores. A brand summary score for each ad (BSUM) was obtained by multiplying the brand recognition score (0 or 1) by the brand recognition confidence score (1 to 5). A claim summary score (CSUM) was computed by multiplying the claim recognition score (0 or 1) by the claim recognition confidence score (1 to 5). A total ad recognition score (TSUM) was computed by adding together the brand summary score and claim summary score.

Results for Hypothesis 1

Recall that H1 hypothesized that a significant inverse relationship exists between distractor similarity and brand/claim recognition. Table 2 shows the results of the investigation of this hypothesis. It contains F values for differences in the computed measures of recognition across the four levels of distractor similarity. In a total of 22 of the 27 conditions (81%) there was a significant difference in recognition scores across different levels of

distractor similarity. In each case, memory scores improved as distractor similarity decreased. In summary, these results provide strong support for H1.

Results for hypothesis 2

Recall that H2 hypothesized that recognition memory differences would be attenuated as distractor similarity approached the extremes. This prediction suggests that floor and ceiling effects would eliminate differences that would otherwise exist. To test this hypothesis, exposure time was manipulated as a between subjects variable. Exposure time was selected because it has a robust effect on recognition memory scores. As exposure time increases so will recognition scores.

To test H2, the impact of differences in exposure time (10 and 15 seconds) on recognition scores was investigated at four different levels of distractor similarity: very similar, similar, somewhat similar, and very dissimilar. The three computed measures of recognition, brand recognition (BSUM), claim recognition (CSUM), and total brand and claim recognition (TSUM) summed across all ads were used as the dependent variables. The results were comparable for all three measures. Figures A, B, and C show the effects of exposure time on the TSUM, BSUM, and CSUM measures of recognition in the four distractor conditions.

In each case the figures support H2. The differences in recognition scores for the different exposure times are reduced in both extreme conditions. Table 3 summarizes the results for each of the three different measures of recognition.

As table 3 indicates, the effect of exposure time on all three measures of recognition were attenuated at the extremes. In the extreme conditions only 2 of the 6 cases were significant, while in the middle conditions 5 of the 6 conditions were significant. In summary, the findings provide strong support for H2.

FIGURE A
 Mean Recognition Scores (TSUM) for Different Exposure Times and Levels of Distractor Similarity

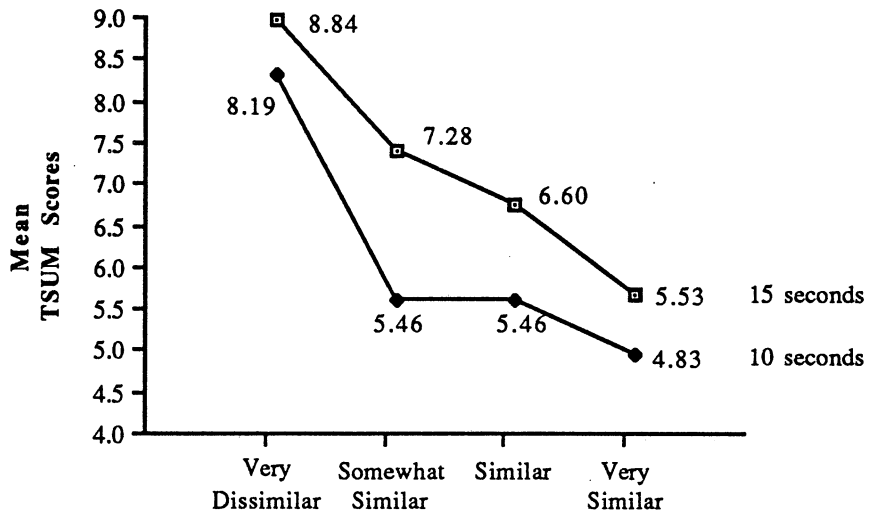
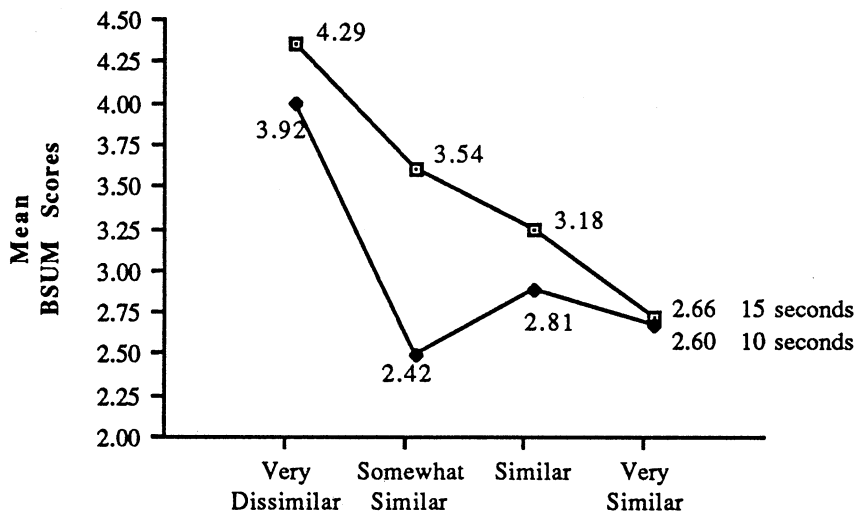


FIGURE B
 Mean Recognition Scores (BSUM) for Different Exposure Times and Levels of Distractor Similarity



DISCUSSION AND CONCLUSIONS

The results clearly show that distractor similarity affects brand and claim recognition memory. Brand and claim recognition scores for the within subject analysis across distractor similarity conditions varied considerably. In addition, the between subject analysis across exposure time showed that distractor similarity attenuated recognition memory at the extremes.

These findings suggest that when distractors are very dissimilar with respect to target stimuli, the

recognition task is too easy and that ceiling effects may occur. When this is true, the criticism that recognition tests are insensitive for detecting memory differences may be valid. In contrast, when distractors are too similar to targets, the task becomes very difficult and memory differences that otherwise may have existed may also be eliminated. It should be noted that the extreme conditions did not attenuate the results in every case; however, the likelihood of detecting memory differences is definitely reduced.

FIGURE C
 Mean Recognition Scores (BSUM) for Different Exposure Times and Levels of Distractor Similarity

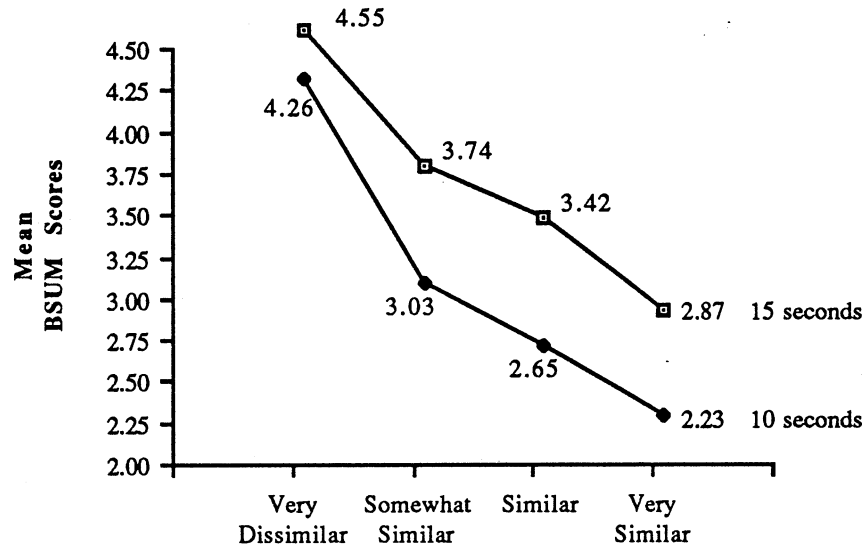


TABLE 3
 T-Values of the Effect of Exposure Times on Mean Recognition Measures for Each Level of Distractor Similarity

	Very Dissimilar	Somewhat Similar	Very Similar	Similar
BSUM	2.157*	4.117*	2.383*	1.500
CSUM	1.629	3.649*	1.202	.177
TSUM	1.613	2.489*	2.492*	2.160*

* $t > 1.96$, $p < .05$ 45 subjects per cell

Moderate levels of distractor similarity worked best for detecting recognition differences. While absolute recognition scores varied across distractors categorized as being similar or somewhat similar, differences across exposure time were relatively equal. Thus, either one of these two categories could be used as long as similarity is held relatively constant.

The procedure used here for equating distractor similarity is relatively simple and not very time consuming. While all levels of distractor similarity had to be developed for the current study, subsequent research need only focus on moderately similar distractors. Furthermore, over the course of the pretest the authors became quite proficient at predicting how similar distractors were to target stimuli. As such, a distractor similarity judgment learning curve for researchers should result.

Future research may wish to develop different ways to measure and control for distractor similarity

biases. In addition, the most efficient level of distractor difficulty across different types of conditions and task environments need also be tested.

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Ask Not What the Brand Can Evoke; Ask What Can Evoke the Brand?

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ABSTRACT

Research on consumer memory and choice has been dominated by paradigms that implicitly assume the availability of the brand, whether it is physically present in the choice situation or symbolically present in working memory as a member of a stable evoked set of brands in a product category. Research attention, therefore, typically has focused on the accessibility of brand information, given the presence of the brand. Recently, brand accessibility has attracted some attention, but only from the perspective that the product category is the stimulus activating brand retrieval processes. In this paper, we propose the alternative view that brand retrieval is more frequently stimulated by consumption goals or consumption occasions, and a model is developed that reflects this ecological dimension of consumer choice, using concepts of spreading activation and goal-derived categories.

INTRODUCTION

Prior to Lynch and Srull's (1982) influential article, the vast preponderance of research on consumer choice was conducted in a stimulus-based paradigm. Experimental subjects were presented with complete (i.e., brand-by-attribute) stimulus arrays, and the emphasis was placed on discerning the so-called decision rules used by subjects to combine the externally-available information and arrive at a brand choice. Lynch and Srull (1982) made the important point that few consumer choice processes are completely stimulus-based and introduced the notions of "pure" memory-based and hybrid mixed choice tasks; the latter referred to the situation in which some information is physically present, but other relevant information is stored in memory.

Lynch and Srull's (1982) insights both reflected and spurred increased attention to retrieval processes in consumer choice, and consumer memory became an important topic in its own right (Bettman 1986). However, most, if not all, of this research has implicitly assumed the presence of the brand in the choice situation, and interest has centered on the retrieval of brand-related information from memory (e.g., Biehal and Chakravarti 1986) with primary emphasis given to brand attributes, or benefits. Recently, inspired by Fazio's (1986) process model of attitude-behavior relationships, researchers have begun to consider the accessibility of brand attitudes in memory. Lynch, Marmorstein and Weigold (1987) have extended the analysis by introducing the diagnosticity construct to delineate the conditions under which brand attitudes or attribute information are more likely to influence decision making.

Oddly, until very recently, consumer memory researchers have not considered the ecologically important retrieval of brands themselves from memory. That is, in memory-based or mixed choice situations, it is not just attribute information, or

attitudes, that must be retrieved; in many cases, the brands must be retrieved from memory as well. Hence, the notion of brand accessibility becomes an important consideration. The retrieval of brands from memory is arguably the root of the evoked set concept, which was introduced by Howard and Sheth (1969) over two decades ago. However, most construals of the evoked set picture it as a static, relatively stable set of brands that is retrieved by the consumer in response to a category cue; recent research by Nedungadi (1990) suggests that evoked sets are more fluid and context-dependent. Therefore, it seems appropriate to apply the same sorts of ideas that have proven useful in studying information accessibility to the examination of brand accessibility. Such an analysis would yield a more complete account of consumer choice processes in "real world" purchase and consumption situations. The purpose of this paper is to begin the development of such a model by focusing specifically on situational antecedents of brand accessibility.

BRAND RETRIEVAL

As discussed in the previous section, researchers only recently have begun to turn their attention to brand retrieval. Before turning our attention to research focusing directly on brand retrieval issues, it is useful to contextualize the discussion by considering some of the historical antecedents to the concept of brand accessibility.

It is surprising that the notion of memory for brands has been a relatively neglected topic given that the concept of the evoked set, and its centrality to consumer decision making have been recognized for some time in both behavioral (e.g., Howard and Sheth 1969) and analytic models of consumer choice behavior (e.g., Silk and Urban 1978). A number of researchers have demonstrated that brand awareness is a particularly important concept relative to brand evaluation in predicting and explaining consumer choice behavior. For instance, Axelrod (1968), Haley and Case (1979) and Nedungadi and Hutchinson (1985) all demonstrated that top of mind awareness (i.e., brand recall) is strongly correlated with brand choice. Haley and Case postulated that brand awareness is more important than attitude. This notion was supported by Hauser (1978) who, using an information theoretic approach, reported that the probability of inclusion of the brand in the evoked set accounts for more variation in brand choice than does brand attitude.

Many researchers have highlighted the importance of distinguishing between brand awareness based on recognition versus recall (e.g., Alba and Hutchinson 1987; Baker et al. 1986; Rossiter and Percy 1987). More broadly, these measures are relevant to stimulus-based versus memory-based evocation respectively. The notion of stimulus-based versus memory-based judgment (Lynch and Srull 1982)

was a distinction originally offered, as a means of distinguishing between brand evaluations made where all relevant brand information was externally present versus evaluations based on recalled brand information. Recently, a number of researchers (Alba, Hutchinson and Lynch 1991; Nedungadi 1987, 1990) have recognized that the stimulus-based versus memory-based distinction also may be applied to brand evocation occasions where the brands are either present (stimulus-based evocation) or absent (memory-based evocation).

As pointed out by Alba et al., (1991), very few decisions in the real world are purely "stimulus-based." In effect, many consumer decisions include some memory component. For instance, seeing some brands may remind a consumer of some other alternative brands for which s/he may then physically search. With regard to evaluation, even though the package may contain all the relevant information, consumers appear to rarely examine information on the package (e.g., Hoyer 1984), suggesting that memory plays an important role in both the evocation and evaluation stages of most consumer decisions. The most important implication of this fact is that recall from memory will not always be accurate and, more specifically, will be systematically biased by accessibility.

Memory factors undoubtedly play a role in stimulus-based brand evocation (Alba et al. 1991) in terms of brand recognition (Rossiter and Percy 1987) and, perhaps more importantly, the ease of recognition (Alba and Hutchinson 1987). Nevertheless, the focus of the following discussion is on memory-based brand evocation, as the key aspects of brand retrieval are perhaps better understood in the simpler case of memory-based evocation. In stimulus-based evocation, both memory and physical salience factors can affect evocation and subsequent choice.

Memory-based evocation appears to correspond to what is typically referred to as "top-of-mind" awareness which has been reported to be a good predictor of brand choice and usage (Axelrod 1968; Nedungadi and Hutchinson 1985). However, Alba and Chattopadhyay (1985) point out a useful distinction between absolute and situational awareness, absolute awareness referring to brands that are known (i.e., recognizable) and situational awareness referring to brands that are recalled at any particular time. The concept of situational awareness highlights the fact that the brands recalled at one point in time may be different from the brands recalled at another point in time; therefore, the evoked set is more accurately construed as fluid and context-dependent rather than transsituationally stable.

Context Dependence of Evoked Sets

Recently, a number of researchers have criticized the fact that the evoked set has typically been thought of as relatively static (Alba et al. 1991; Nedungadi 1987, 1990). In general, evoked sets are conceived of as sets of brands that are generated or retrieved in response to a product category cue (e.g., Alba and Chattopadhyay 1985). Although a number of researchers have noted that cues other than product

category (most notably, attributes and benefits) may guide brand recall (e.g., Baker et al. 1986; Nedungadi 1987), most researchers and practitioners think in terms of top of mind awareness, which assumes that: (1) evoked sets are common taxonomic categories; and (2) evoked sets are relatively static and do not change in response to changes in context. We propose that these assumptions should be replaced by the notion that evoked sets are better described as goal-derived categories and vary by context. Considering evoked sets as goal-derived categories highlights the notion that brand evocation may be in response to some cue other than the product category. In terms of the influence of context, even if the product category is a salient cue, other cues salient in a situation may lead to evocation of a different set of brands.

In making a distinction between common taxonomic categories and goal-derived categories, Barsalou (1985, p. 633) points out that common taxonomic categories are often used for classification, whereas goal-derived categories are often used for instantiation. Thus, evoked sets, in which people generate (instantiate) alternatives in order to achieve some consumption goal, bear an important resemblance to goal-derived categories. When people shop in a supermarket for a meal for that evening, they may not think in terms of product categories, but rather in terms of different meals that satisfy their needs such as variety, economy, preparation and "fit" with things already at home.

The composition of an evoked set depends critically on the cues that are salient at the time of evocation. The idea that an evoked set is generated in response to a product category cue implies a static, context-free, common taxonomic category. Instead, evoked sets are generated in response to the far richer set of cues that are present ecologically. Even if the category is provided as a cue, other cues present within the situation affect the brands that are included in the evoked set relative to a retrieval situation where the category is provided as the only cue, or the category is provided within a different context incorporating different cues. For example, Roth and Shoben (1983) showed that the "graded structure" of the category of birds was changed if a context was added (e.g., "The hunter shot at the 'bird' flying overhead."). In the same way that categories vary by context (e.g., Barsalou 1985; Roth and Shoben 1983), so do evoked sets vary by situation (Nedungadi 1987). Ratneshwar and Shocker (1991) demonstrated that snack products recalled vary depending on (1) whether or not a usage situation cue is given and (2) the nature of the usage situation. They also showed that the graded structure (typicality) of the products varied across the two situational cues and the overall category.

Retrieval Cues

Before discussing the various cues that might serve to cue brands in choice situations, it is important to note that cues differ on at least two dimensions. First, retrieval cues may be either self-generated or externally generated (Lynch and Srull 1982). Internal cues are likely to be more characteristic of consumption situations rather than

purchase situations, but internal cues will be present in the purchase situation to the extent that the consumer uses the anticipated consumption situation as a cue at purchase.

Second, some cues may work directly to evoke the brand while others may work indirectly. For instance, thinking of the attribute, caffeine, may directly evoke Coke. A situation such as going to an early morning meeting may indirectly evoke Coke via a chain of associations: early morning meeting → need to stay awake → caffeine → Coke. Frequent instantiations of this indirect link may make the brand, Coke, more accessible in the cuing situation, i.e., early morning meeting.

Product Category and Other Brands. Two cues that are present in many retrieval situations and which have received consideration in consumer research are product category and other brands. First, evocation in response to a category label, or the "category production task," has sometimes been considered "the most relevant experimental paradigm in memory research for understanding product recall" (Alba et al. 1991, pp. 5-6). However, the value of this paradigm in exploring notions of evocation is limited, because product category represents only *one* of the constellation of cues present in retrieval situations. A broader view is needed which recognizes choice situations where the product category is not a cue at all (leading to goal-derived evoked sets) and/or situations where the composition of the evoked set is a function of product category *and* other cues present within the context.

The second cue that has received some consideration is the brand itself as a cue for other brands (e.g., Alba and Chattopadhyay 1985; Nedungadi 1987, 1990); however, the brand is probably an indirect cue which operates through the category. That is, the brand provided is likely to cue the category, which in turn cues other brands. In one sense, this cue does not move our thinking beyond the category production paradigm. Nevertheless, research examining the brand as cue has led to some new insights on possible retrieval interference effects. Alba and Chattopadhyay (1985) show that the provision of brands as cues can facilitate brand recall if the brand cues an unretrieved (sub)category, but inhibits brand recall in accessible categories (i.e., part-list cuing effect).

Nedungadi (1987, 1990) found that provision of a brand as a cue facilitates brand retrieval through both a "direct" and an "indirect" effect, but no part-list cuing inhibition effect was observed. Unobtrusive priming of a brand was found to increase the probability of evocation of the primed brand (direct effect). More subtly, priming a minor brand in a minor category increased the probability of retrieval of the major brand in that minor category (indirect effect); it appears that the minor brand cued the category, which in turn cued the major brand. This result did not obtain in the major category, presumably because the category itself was already highly accessible. For instance, priming with Dos Equis might be expected to increase evocation of both Corona and Dos Equis in recall of beer brands, both

representing the minor subcategory, Mexican beers. On the other hand, priming with Coors would not be anticipated to increase evocation of Budweiser. It is noteworthy that while priming had both a direct and indirect effect on brand evocation, it had only an indirect effect at the brand *choice* level, i.e., only major brands in minor (sub)categories were chosen more frequently as a result of priming.

The failure to find any inhibition effect was expected by Nedungadi (1987), as inhibition effects are typically in evidence in categories where there are large numbers of items in the category and where numerous exemplars are listed as cues. Subjects in Nedungadi's studies were asked to generate evoked sets, which tend to be constrained in size (see Hauser and Wernerfelt 1990). Subsequently, they were asked to recall as many more brands as possible. If an inhibition effect were to arise, it would be at this point. That is, the evoked set (which would be the same constrained size on average across cuing conditions) would provide a substantial part-list cue resulting in inhibition of subsequent recall; however, the priming of one brand would not be expected to lead to inhibition in generation of the evoked set.

Attributes, Benefits and Attitudes. Attributes, benefits and attitudes are typically considered in terms of their influence on evaluation (Keller 1991). For instance, attributes of the brand have been considered as a means of discriminating among alternatives (e.g., Alpert 1971). These so-called "determinant" attributes are defined as "those attributes projected by the product's image which lead to the choice of that product...they determine preference and purchase behavior" (Alpert 1971, p. 184).

Independent of the role of attributes in evaluating alternatives, Nedungadi (1987) argued that "certain attributes or properties of brands are activated by each usage [consumption] situation and are believed to underlie the process of retrieval set formation" (p. 35). Nedungadi (1987) distinguished between cues used in evocation versus cues used in evaluation by labeling the former "cuing attributes." He notes that cuing attributes may be independent of determinant attributes; that is, the attributes used to cue brands may be different from the attributes used to evaluate brands. Despite some difficulties finding cuing attributes via direct questioning, Nedungadi (1987, Experiment 2) set up some artificial stimuli (restaurants) in which the cuing attributes were uncorrelated with the determinant attributes and found support for his contention that cuing attributes influence brand evocation.

Benefits may be defined as the personal value that consumers attach to the product or service attributes (Keller 1991, p.7). In effect, to the extent that a product is perceived by a consumer to fulfill some particular purpose or function, it may be said to have the attribute of providing that specific benefit. Benefits may have a role in both evocation and evaluation.

Like attributes and benefits, attitudes are typically thought to be used to discriminate between brands. However, it should be apparent from the research in goal-derived categories that an evaluative

criterion can be used as a cue. Barsalou (1985) demonstrated that evaluatively valenced goal-derived categories can be constructed such as "personality characteristics in others that prevent you from being friends with them" and "foods not to eat on a diet" (Barsalou 1985, p. 651). Ecologically, it is likely to be exceedingly rare that a consumer would endeavor to recall brands that are associated with negative evaluations; consumers will automatically endeavor to recall favorable brands. This may offer at least a partial explanation why more preferred brands tend to be recalled earlier (e.g., Nedungadi and Hutchinson 1986; Ward and Loken 1986). At evocation, it appears that attitude plays a role as a coarse cue, virtually a filter, that ensures that no disliked brands are included in the evoked set. It is anticipated that attitudes will not offer a particularly useful cue for evocation because recalling brands associated with positive affect is likely to be virtually automatic; in effect, a positive attitude is a cue that is likely to be automatically salient in evocation of brands prior to choice.

Purchase and Consumption Situations.

Consumers make brand choices in both purchase and consumption situations. Both situations represent a complex of cues that may serve to guide retrieval of brands for inclusion in the evoked set. There is little dispute that brand choice varies by situation (e.g., Belk 1975), but the nature of the influence has not undergone thorough investigation. Most attribute the variation in brand choice by situation to be a result of changes in attribute importance by situation (e.g., Miller and Ginter 1979). However, some research has shown that brand recall varies by situation (Ratneshwar and Shocker 1991), confirming Belk's (1975) suspicion of situational influence through "subtle cueing effects" (p.161). Still, the particular cues need to be identified.

The important characteristics of choice situations are the motives underlying the consumer's choice. Thinking in terms of motives leads readily to consideration of goal-derived categories (Barsalou 1983, 1985). It is suggested that research aimed at identifying the situational goals that act as cues in the evocation process will provide more insight into the cues that guide consumer evocation. In particular, one element that represents an important cue and which has not been included in the associative model of brand memory is the consumer's underlying motives; that is, his/her needs and wants. Clearly, this should be a fundamental aspect given "marketing's first law: 'Don't sell what you happen to make; make what the consumer wants to buy'" (Fennell 1978, p. 38).

MEMORY AND BRAND CHOICE

Two interrelated models are necessary to fully understand the role of memory in brand choice. The first model is one of brand choice. Brand choice, as suggested by Nedungadi (1990), is composed of two separate stages--evocation and evaluation. The first stage, brand evocation, is necessary, and in the case of low involvement choice, may be sufficient, for choice. The second stage, brand evaluation, is

contingent on brand evocation in the sense that only evoked brands will be evaluated.

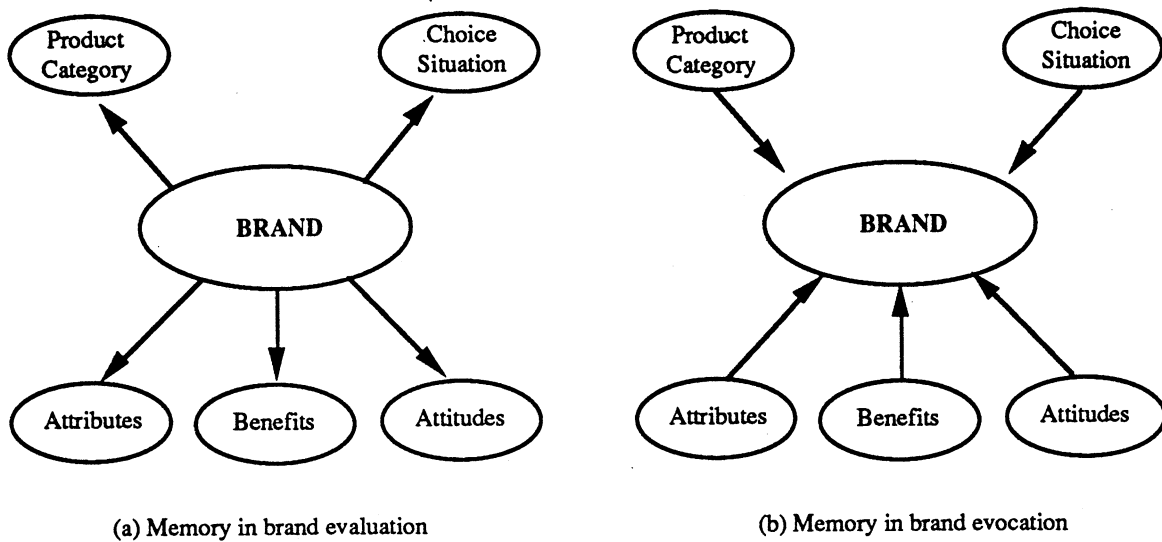
The second model is one of consumer memory structured as an associative network (see Anderson 1973; Collins and Loftus 1975). The brand is conceptualized as being the central node linked with a bundle of associates. Meyers-Levy (1989) uses the useful concept of an "association set" to refer to "the concepts that are meaningfully related to a target word or brand name" (p.197). Many researchers have cataloged a variety of associates that may be linked to the brand in memory (e.g., Aaker and Keller 1990; Brucks 1986; Keller 1991). Summarizing various conceptualizations, we propose that brand memory be considered an associative network with links to attributes (both unique to the brand and common to all or most brands in the category of which it is a member), benefits, attitudes, product category and choice situation (i.e., purchase and consumption situations). This categorization of associates is intended to be thought provoking rather than comprehensive. The associates included represent those that are considered to be most likely to have a role in brand choice.

Now we can put together the two models of staged brand choice and brand memory. First, considering the notion of memory in evaluation which has been the focus of most consumer memory research, choice is understood to be a function of the associates that are retrieved to support the evaluation stage of the consumer choice process (e.g., Alba et al. 1991; Lynch and Srull 1982; Meyers-Levy 1989). In this respect, the perspective taken by those investigating brand memory and evaluations is a *brand-to-associate* view (see Figure 1a). In this perspective, the attention is generally on the associates evoked rather than the cues doing the evoking; this is because the brand can be considered the central cue. However, Keller (1987) has demonstrated that memory for brand associates is facilitated by the provision of cues in addition to the brand; Keller provided advertising-related cues. The associates retrieved that receive most attention in the consumer behavior literature are attitudes and brand attributes (e.g., Biehal and Chakravarti 1986; Lynch et al. 1988).

We propose that a focus on brand evocation requires a reverse perspective on brand memory. That is, in examining the role of memory in brand evocation, it is necessary to examine those associates that lead to retrieval of the brand (see Figure 1b). Additionally, whereas brand evaluation focuses on what is evoked (namely associates such as attitudes and attributes) rather than the cues, research on brand evocation needs to focus on the cues, with the brand being the evoked object (i.e., the *associate-to-brand* links).

In terms of the different perspectives on brand memory, the brand evaluation perspective tends to dominate consideration of the influence of memory on choice. However, we argue that brand choice is more fully described as a function of the "brand-to-associates" links and by "associates-to-brand" links. Most prior research considers only the brand-to-associate links that underlie evaluations; modeling

FIGURE 1
Two perspectives on brand memory: evaluation versus evocation



brand choice as a function of associates evoked by the brand examines only half the issue--or less, given that many brands available are not included within the evoked set. In effect, it is proposed that the associate-to-brand links underlie evocation, while the brand-to-associate links underlie brand evaluation and, ultimately, associates of a brand will be retrieved and examined only if the brand itself has been evoked.

ACCESSIBILITY AND ASYMMETRY

An important notion in the memory literature is that the process of retrieval does not necessarily reflect what is "stored" in memory. Specifically, an item may be stored in memory, but may be retrievable only if a person is provided with the appropriate cues. That is, a brand may be "available," but is only "accessible" under certain conditions (Tulving and Pearlstone 1966). The notion of accessibility can be thought of as the strength of the cue-object link; a strong link facilitates retrieval of the object upon presentation of the cue.

Given studies that have shown differences in evocation as a function of different usage situations (e.g., Ratneshwar and Shocker 1991), and given the proposition that selective evocation is a function of the cues present in the situation, it is now proposed that the reason for variation in brand evocation is that different associates may have stronger links to some brands than others. The result is that any given associate evokes some brands with greater probability than others.

The model of brand memory as an associative network may suggest that brand-to-associate links are essentially the same as the associate-to-brand links. It has been pointed out that, in understanding memory in brand choice, a conceptual distinction must be made between the brand-to-associate and the associate-to-brand links (see Figure 1). However, even some of the

earliest work on the notion of spreading activation (see Collins and Loftus 1975) through associative networks recognized that "criterialities" or strengths of association may be asymmetric. Specifically, it may be highly likely that thinking about a particular situation will evoke a particular brand (e.g., something to drink while watching the Superbowl, Budweiser comes to mind), but thinking of the brand will not necessarily evoke that situation.

Similarly, categorization research has long recognized that the strength of the link from an instance to a category is not necessarily related to the strength of the category to instance link (e.g., Barsalou 1983). Barsalou and Sewell (1985) note that "a standard assumption in the memory literature [is] that relations can be asymmetrical in strength and that the direction processed more frequently develops stronger relations" (p. 650).

Already, some research in marketing may be interpreted as providing evidence of asymmetries in the strength of associate-to-brand links versus brand-to-associate links. Nedungadi (1987, 1990) showed that minor brands in a category are likely to lead to evocation of a major brand, but major brands are not likely to lead to evocation of the minor brand. Similarly, Herr, Farquhar and Fazio (1990) report preliminary evidence showing that the category-to-brand link is not necessarily equal to the brand-to-category link. However, their conceptualization and empirical work (see also Farquhar et al. 1990) consider only category-brand links. In line with our earlier suggestion of considering a wider set of retrieval cues, it is useful to extend this conceptualization (and empirical work) to consider the various associate-to-brand links that are likely to be activated in purchase or consumption situations.

Furthermore, due to the asymmetry that has been discussed, the link direction has different

implications for the two components of the choice process, namely evocation and evaluation. While the empirical work of Herr et al. (1990) highlights the importance of the strength of the category (associate) to brand links on brand choice, the focus is on the implications of the strength of the category-to-brand link for transfer of liking for that brand to brand extensions. An opportunity exists for extending this investigation to consider the influence of brand accessibility on brand choice independent of the influence of associate accessibility on evaluation.

IMPLICATIONS AND CONCLUSION

Recognizing the different roles of memory in brand evaluation and brand evocation has implications for a number of diverse areas in marketing. For instance, in measuring advertising effectiveness, the model highlights the need to assess effects on both evaluation (i.e., new, positively evaluated associates now evoked by the brand) and effects on evocation (i.e., new cues that are likely to evoke the brand). In particular, measures of brand awareness where the advertisement is provided as a cue are only appropriate if the advertisement is a salient cue at choice. In terms of segmentation, the substitution-in-use approach (e.g., Srivastava, Alpert and Shocker 1984) may be extended to distinguish segments based on brand preference versus segments based on systematically biased brand evocation. Finally, brand equity research, which frequently focuses on the associations evoked by the brand (e.g., Aaker and Keller 1990), could be extended by considering brand awareness, and more specifically, the role of associates as cues to brand evocation.

However, before the implications of brand accessibility can be explored in detail, it is necessary to establish the way in which brand awareness is a function of cues present at the choice situation. There is a critical need to identify empirically the associates that serve as cues to brand evocation. In addition, research is needed that extends Herr et al's (1990) findings by investigating the asymmetrical links between brands and associates, and determining the consequences of asymmetry on brand evaluation and brand evocation.

In summary, attention needs to be directed to the associate-to-brand links, because the associates act as "cues" for retrieval of the brand in the purchase or consumption situation. That is, brand choice is modeled as a function of the brand(s) evoked by specific associates. Evoked sets are likely to be a function of the complex of cues that make up the goal at the time of evocation. Consequently, an important priority is to investigate what are the cue constellations that instigate purchase and/or use of a specific brand. In effect, attention needs to be directed at the important issue of what evokes the brand in a choice situation rather than simply what the brand evokes.

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A Revised Product Involvement Inventory: Improved Usability and Validity

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ABSTRACT

Four shortcomings of the Product Involvement Inventory published by Zaichkowsky (1985) are identified: usability, discriminant validity, criterion validity and construct validity. A revised ten-item inventory is shown to overcome these problems while maintaining good reliability. The Revised Product Involvement Inventory contains separate sub-scales that measure two facets of consumer involvement: perceived importance and interest. It maintains most of the strengths of the original PII while offering improved criterion validity.

We set out to modify and improve the Product Involvement Inventory (*PII*) developed by Zaichkowsky (1985). It should be emphasized at the outset that the *PII* is already a good measure by most standards of construct development. Our effort at modification has the goal of strengthening the *PII* through shoring up weaknesses and improving usability. The Revised Product Involvement Inventory (*RPII*) was developed to remedy four problems with the original measure: 1) difficulty and impracticability of use; 2) uncertain discriminant validity; 3) limited criterion validity; and 4) an overly narrow conceptualization of involvement.

Usability

The *PII* can be criticized for its polysyllabic vocabulary and its length (20 item pairs). The level of vocabulary (e.g., "mundane," "superfluous") may limit the applicability of the *PII* outside a university environment. Length becomes a problem when a researcher seeks to examine multiple products within a single study. Since earlier multi-item involvement measures had all been product specific (Bloch 1981; Tigert, Ring and King 1976), a key advantage of the *PII* is its suitability to comparing involvement across diverse products. Yet, the twenty item pairs in the *PII*, when applied across half a dozen products, might unduly fatigue respondents, making it difficult to measure other theoretical constructs of interest. A decisively shorter *PII* would have wider applicability while simultaneously offering greater convenience to both respondents and researchers.

Discriminant Validity

An examination of the content of the *PII* alerted us to a potential problem with discriminant validity. While there are some items in the *PII* that appear verbatim in commonly accepted scholarly definitions of involvement, such as "relevant" (Krugman 1965); "important" (Hupfer and Gardner 1971); and "interesting" (Mitchell 1979), the *PII* also includes items such as "valuable-worthless." These terms have a very different provenance: for over thirty years they have been shown to be among the best items for measuring the *evaluation* component of the meaning

of an object (Osgood, Suci and Tannenbaum, 1957, p. 190). Other items found in the *PII* which have been used to measure evaluation of an object include "useful" and "needed" (Osgood 1969), and "beneficial" (Burnkrant and Page 1982). Closely related in meaning -- although we could not find examples of their use -- are the terms "desirable" and "wanted." Thus, it would appear that between 20% and 30% of the content of the *PII* represents scale items whose typical use in the social sciences has been to measure a person's favorable or unfavorable evaluation of an object, and not involvement per se.

Inclusion of evaluative terms may confound the measurement of involvement with that of attitude. Hence, a measure of involvement ought to go to some length to exclude items which are predominantly evaluative in nature.

Criterion Validity

Behavioral criteria. Zaichkowsky (1985, pp. 346ff) specified five self-reported criterion behaviors as part of her validation efforts. Recent advances in the literature, however, cast doubt on the adequacy of the behavioral criteria used by Zaichkowsky. An examination of these five criteria (see Table 1) shows that they fall into two groups: three items are concerned with intensified information search or prolonged information processing, and the remaining two are concerned with commitment to a specific brand. Peter and Olson (1987) have argued persuasively that product involvement should be distinguished from brand involvement (cf. Rossiter and Percy 1987). An individual can be involved with the product category without seeing many differences between brands or having a preferred brand. This observation thus compromises two of Zaichkowsky's five items. Regarding the other three criteria, Zaichkowsky herself noted problems with the phrasing of the "reading about" information search measure (p. 347). Therefore, it would appear that the predictive validity of the twenty item *PII* rests on exactly two self-report items.

The non-brand related criteria used by Zaichkowsky (1985) measure the extent of information search and information processing -- activities that have continued to be judged in the literature as key concomitants of heightened consumer involvement (Beatty and Smith 1987; Bloch et al. 1986; Gensch and Jivalgi 1987). Information search can be indexed by activities such as reading about the product, attending to ads for it and discussing it with other people. Information processing can be indexed by activities such as comparing product characteristics, examining many factors for their potential relevance to purchase, and investing more time in the decision process. Any revision of the *PII* should have a demonstrated capacity to predict a wide range of such behaviors, and should be highly

predictive of a composite measure composed of multiple outcomes.

Situational discrimination. A second approach that Zaichkowsky used to establish criterion validity for the *PII* was to demonstrate its capacity to discriminate among products and among situations. The claim that the *PII* discriminates among situations is interesting but problematic. Zaichkowsky (1985) does not indicate whether the *PII* is intended to measure *enduring* involvement, *situational* involvement, or both (Houston and Rothschild 1978). Some authors would argue that different measures are required to assess these two types of involvement (Bloch and Richins 1983; Richins and Bloch 1986). On the other hand, the concept of *felt* involvement has been introduced by Peter and Olson (1987) to capture the net involvement produced in an individual by both enduring and situational factors. The tests reported in Zaichkowsky (1985) suggest that she intended the *PII* to be a measure of felt involvement. The support shown for this application of the *PII*, however, is modest: successful discrimination using one product (red wine) across one situational difference (private vs. socially visible consumption). Use of the *PII* to measure differences in felt involvement across situations could be better supported through an examination of multiple products across multiple types of situations.

Construct Validity

Theoretical definition of the involvement construct continues to be a contentious area. Clearly, allegiance to one or another theoretical position is going to have marked effects on how one measures the construct. While it is not our intent to present any new theories of involvement, we saw an opportunity to broaden the conceptualization that underlies the *PII*. Specifically, Zaichkowsky (1985) presents the *PII* as a measure of a single thing: involvement conceptualized as personal relevance. This is perhaps the most striking difference between the *PII* and the Involvement Profile developed by Laurent and Kapferer (1985). They insist that a measure of involvement must take into account multiple dimensions to be complete, and succeed in demonstrating the presence of at least four distinct factors in the analysis of their twenty item inventory.

The Laurent and Kapferer measure has its own problems, chief among which is whether *risk* (two of their four factors) is properly conceptualized as a dimension of involvement or as a separate construct (compare Chaffee and McLeod 1973; Bloch and Richins 1983; Rossiter and Percy 1987). If these concerns were to be placed aside, however, the two remaining dimensions (importance and pleasure) dovetail nicely with the two factor theory of involvement developed by Park and Mittal (1985). These authors argue that there exists both cognitively based and affectively based involvement. Heightened involvement can result either from functional consequences ("It is important that I attend to this product") or emotional consequences ("It gives me enjoyment to attend to this product"). This two factor conceptualization of Park and Mittal is consistent

both with subsequent work by Zaichkowsky (1987), and with an earlier tradition in the advertising discipline (Ratchford 1987; Vaughn 1980).

In this paper, we use the terms "importance" and "interest" to refer to these two aspects of the involvement response. Our position is that while the descriptors "important" and "interesting" are equally reflective of the felt involvement construct, they are *not* synonymous. Importance and interest represent correlated but distinct facets of felt involvement. Many products will strike a consumer as interesting and important to an equal degree; others will appear to be one but not the other. Hence, an involvement inventory needs to sample items from both domains, so that it can yield both an overall score and two subscores. This is particularly necessary if it should prove the case that the two dimensions differentially drive outcome behaviors such as information search, or vary in their effects across product categories. While Zaichkowsky (1985) did not make this distinction, the original *PII* appears to contain items from both the importance domain (e.g., "matters to me") and the interest domain (e.g., "exciting"). Our proposed revision will augment the interest domain (which appears to be represented by fewer items in the original *PII*).

METHOD

Sample and Procedure

Self administered questionnaires were completed by 146 students and 103 non-students; the total sample is 51% male and 49% female. The non-student sample consists of working adults over the age of 30; non-students were included to maintain comparability with Zaichkowsky's (1985) samples. Each respondent rated three products that were presented free of context (i.e., non-situated), and then a fourth product that was presented in two different situations. Ratings were made on a 22 item semantic differential that included the original *PII* plus two new item-pairs described below. Respondents also rated the three non-situated products on measures of attitude and information search and processing, as described below. Three different rating forms, each containing four products, were used in the research. The forms differed only in the specific products listed. The total of twelve products rated in the study include all the products used by Zaichkowsky with the exception of bubble bath (excluded in view of its gender-specific consumption). Within each rating form, one-half the respondents rated the products in one order, while the other half rated them in counterbalanced order. Across the three rating forms, *PII* scores for each group of non-situated products had been found to be roughly equal by Zaichkowsky (1985). After elimination of incomplete questionnaires, there were 1171 usable cases.

Measures

Involvement. Two new-item pairs were added to the *PII*: "fun-not fun" and "dull-neat". These were chosen by the authors to tap the interest facet of involvement, and to help alleviate the polysyllabic

EXHIBIT
Assignment of Items Used to Rate Involvement to the PII, RPII, and Discard Measures

Scale items	RPII		Discard
	Importance	Interest	
Important ... unimportant	X		
Not needed ... needed			X
Irrelevant ... relevant	X		
Means a lot to me ... means nothing to me	X		
Unexciting ... exciting		X	
Valuable ... worthless			X
Trivial ... fundamental			X
Beneficial ... not beneficial			X
DULL ... NEAT		X	
Matters to me ... doesn't matter	X		
Uninterested ... interested			X ^a
Significant ... insignificant			X
Vital ... superfluous			X
Boring ... interesting		X	
FUN ... NOT FUN		X	
Useless ... useful			X
Appealing ... unappealing		X	
Mundane ... fascinating			X
Essential ... nonessential			X
Undesirable ... desirable			X
Wanted ... unwanted			X
Of no concern ... of concern to me	X		

NOTE: Items listed under 'scale items' comprise the *PII* (Zaichkowsky 1985), with the exceptions of those in boldface capitals, which were added in the present study. Items listed under 'Discard' represent those items in the *PII* that we propose to discard. The order shown is the order in which the items were administered.

^a This item was excluded from analyses of the Discard measure. While it clearly measures involvement, it inappropriately duplicates the "interesting-boring" item, which was chosen for retention in the *RPII*.

character of the *PII*. For analytic purposes the 22 item pairs representing involvement can be characterized in several ways as shown in the Exhibit. The *RPII* consists of eight item-pairs drawn from the original *PII* plus the two new item-pairs. The *RPII* is divided as shown into two sub-scales referred to as Importance and Interest. The Discard measure consists of those items in the *PII* that we propose to eliminate. Since the *RPII* is largely a subset of the *PII*, most analyses compare the *RPII* to the Discard measure rather than the *PII*. The general hypothesis is that the items in the Discard set either serve no useful purpose or actually have a debilitating effect.

Attitude. Five item pairs (good-bad, ugly-beautiful, pleasant-unpleasant, awful-nice, positive-negative) were selected from the literature on the semantic differential (Osgood, Suci and Tannenbaum 1957; Osgood 1969). Each pair had very high ratings on the Evaluation factor in that literature. Coefficient alpha for the sum is .92.

Information Search and Processing. The five items used by Zaichkowsky (1985) and five additional items drawn from the literature were used to measure commonly accepted outcomes of a state of involvement (Table 1). In addition to examining individual items, the analyses also use the sum of those eight of the ten items that were not related to brand commitment (see note to Table 1; coefficient alpha for this sum is .94).

Situational Differences. Involvement with three of the products studied (red wine, calculators, and cameras) was examined across two situations. For red wine, this was the exact public vs. private situation distinction used by Zaichkowsky; for calculators it was self vs. gift purchase situation, while for cameras it was everyday use vs. use on an overseas vacation.

TABLE 1
Comparison of the PII, RPII and the Discard in the Prediction of Involvement Outcomes

Outcome	R ²		
	PII (20 items)	RPII (10 items)	DISCARD (11 items)
1. I would be interested in reading about this product	.59	.62	.55
2. I would read a Consumer Reports article about this product	.50	.52	.47
3. I have compared product characteristics among brands	.58	.58	.55
4. I think there are a great deal of differences among brands	.46	.48	.42
5. I have a most preferred brand of this product	.56	.54	.48
6. I usually pay attention to ads for this product	.52	.54	.48
7. I usually talk about this product with other people	.54	.58	.50
8. I usually seek advice from other people prior to purchasing this product	.49	.54	.44
9. I usually take many factors into account before purchasing this product	.51	.56	.47
10. I usually spend a lot of time choosing what kind to buy	.52	.57	.47

NOTE: Items #1 through 5 are the same as those used in Zaichkowsky (1985) with minor changes in wording. The remaining items were developed for the present study. Items 4 and 5 were eliminated to create the eight item summed measure of information search and processing discussed in the text.

RESULTS

Internal Consistency

Coefficient alphas for the *PII* and the *RPII* were computed over the nine products rated in the study, over the six situated products, and for each product and situated product individually. The reliability of both the *RPII* and the Importance and Interest sub-scales, when measured across multiple product categories, is very good in an absolute sense at .95, and almost as good as the *PII*, whose reliability is .98. In terms of individual products, the superiority to be expected from the lengthier *PII* is more apparent. In several cases reliability for the *RPII* and its sub-scales dips to the low or mid .80's, while that for the *PII* never dips below .92. Nevertheless, in about three-fourths of the individual product ratings the reliability of the *RPII* and its two sub-scales equals or exceeds .90. To measure test-retest reliability, three of the products (facial tissue, headache remedy and mouthwash) were rated a second time by 60 students after a three week interval. Over the three products, test-retest

correlations for the *PII* ranged from .59 to .85, and for the *RPII* from .53 to .78. As with coefficient alpha, the *PII* has a slight reliability advantage over the *RPII*.

Usability

The *PII* contains 143 syllables in 57 words ($\bar{x} = 2.51$), the *RPII* contains 66 syllables in 36 words ($\bar{x} = 1.83$), and the Discard contains 73 syllables in 24 words ($\bar{x} = 3.04$). The syllable-word ratio in the *RPII*, when compared item by item is significantly less than for the *PII* ($t = 2.62, p = .01$). A lower syllable count is often associated with greater readability and ease of comprehension (Locker 1989). As an additional test of usability, 65 undergraduates, predominately of Junior standing, rated each unique word in the *PII*. They were asked which of these words they used in speech or writing. Four words in the *PII* were found to be problematic: superfluous (77% did not use), mundane (62%), vital (23%) and fundamental (22%). These analyses strongly suggest the need to simplify the *PII* if it is to be applicable to broader populations outside of an elite university setting.

TABLE 2
Effectiveness of the PII and RPII in Discriminating Involvement Across Situations

Product Situation	PII				RPII			
	Mean	t	Wilks' lambda	% correct	Mean	t	Wilks' lambda	% correct
Red Wine								
Dinner party	103				52			
Everyday	65	12.7	.66	76%	34	12.9	.68	74%
Calculator								
Personal use	110				51			
Gift for friend	101	5.0	.92	64%	48	3.4	.97	57%
35mm Camera								
Vacation	112				56			
Everyday use	97	5.2	.92	66%	49	5.2	.93	64%

NOTE: All t test and Wilk's lambda values used in the discriminant analysis are significant at the .001 level. The "% correct" column indicates the number of cases correctly classified following a discriminant analysis.

Factor Structure

Principal components factor analyses with varimax rotation were performed on the *PII* and the *RPII* for the nine products taken in the aggregate, the six situated products in the aggregate, and over the 9 individual products and 6 situated products (Table 2). In both the aggregate analyses the *PII* revealed one major and one minor factor, exactly as reported by Zaichkowsky (1985). On an individual product basis the results for the *PII* are less clear. In 8 of 15 cases, the *PII* exhibited more than two factors, with as many as five in the case of automobiles and calculators purchased for a friend. This casts serious doubt on whether the 20 item *PII* really measures a single dimension of involvement as claimed by Zaichkowsky (1985).

The *RPII* had a two factor structure in both of the aggregate analyses. In the analyses of the 15 individual product ratings (nine non-situated, six situated), the *RPII* showed only a single factor in four cases, and two factors in the remaining eleven cases. The occasional absence of a second factor is probably a result of the high correlation between Importance and Interest ($r = .66$ overall).

Discriminant Validity

Surprisingly, both the *RPII* and the Discard measure have approximately equal correlations with the attitude measure ($r = .76$). This undermines our contention that the *PII* is more confounded with attitude than is the *RPII*. However, the results are somewhat more encouraging when the Importance and

Interest sub-scales of the *RPII* are examined separately. The sub-scale correlations with the attitude measure are .74 and .65, respectively. The latter correlation is significantly lower than the Discard-Attitude correlation of .76 when Steiger's (1980) test for dependent correlations is applied ($\bar{\chi}_1^2 = 5.41, p < .001$). It appears that the *PII* is not alone in having a high correlation with attitude. However, these findings also suggest that measures of interest are more distinct from measures of attitude than are measures of personal relevance (the Importance sub-scale). The sub-scale structure of the *RPII* thus offers some assistance to the researcher who seeks the greatest possible differentiation between measures of involvement with the object versus attitude toward the object.

Criterion Validity

This section compares the performance of the *PII*, the Discard and the *RPII* measures in the prediction of ten outcomes of involvement. To maintain comparability we first examine results for the five behaviors originally studied by Zaichkowsky (1985), despite the fact that two of these items probably measure brand involvement rather than product involvement. As shown in Table 1, the *RPII* is nominally superior to the *PII* in four out of five cases. The one exception concerns having a preferred brand. Even here, the five item Importance sub-scale predicts this behavior as effectively as the twenty item *PII*.

The next analysis examines the sum of eight items (three from Zaichkowsky, five added by us) which measure information search and processing (see note to Table 1). This sum provides a more reliable indicator of involvement outcomes than any individual behavior. Looking at the aggregate of nine products, the *RPII* is again superior to the *PII*, accounting for 45.2% of the variance in information search and processing, as compared to 40.3% for the *PII*. The difference between the two correlations is significant by Steiger's (1980) test ($\bar{Z}_i = 4.44, p < .001$). A more conclusive test is to examine the incremental contribution (I^2) in predicting information search and processing obtained by adding the Discard measure to an equation that contains the *RPII* measure (Cohen and Cohen 1983). This analysis shows no significant contribution by the Discard measure in a hierarchical regression analysis ($I^2 = .001, NS$).

Because the *PII* was found to be especially reliable on an individual product basis, this hierarchical regression analysis was repeated on a product by product basis. For eight of nine products, the addition of the Discard measure again failed to improve upon the prediction of outcomes obtained from the *RPII* (the exception is color televisions). These individual product analyses indicate that in most cases the items in the Discard measure perform no useful function from the standpoint of prediction of information search and processing.

Also of note are analyses of the attitude measure in prediction of information search and processing. Despite the high correlation between attitude and both Zaichkowsky's *PII* and our *RPII* measures of involvement, attitude is clearly inferior as a predictor of behavioral outcomes, accounting for but 27% of the variance in the eight item sum.

Discrimination Among Situations

Red wine, calculators and cameras were each presented to respondents in two distinct situational contexts. The *PII* successfully discriminated between two situations in the case of three different products examined in three different types of situations (Table 2), as would be expected of a measure of felt involvement (Celsi and Olson 1988; Peter and Olson 1987). We also found the *RPII* to be about as effective as the *PII* in this task. The *RPII* is also able to discriminate differing degrees of involvement across situations in all three cases; however, in a discriminant analysis it does not correctly classify quite as many cases as the *PII* (Table 2). On the other hand, in a hierarchical discriminant analysis where the *RPII* is entered first, the Discard measure does not add significantly to the *RPII*'s discrimination between situations in two of three cases (red wine and cameras). The roughly equivalent performance of the *RPII*, in conjunction with the limited incremental value of the Discard measure, suggest that the extra items in the *PII* may be of limited value when the goal is to discriminate degree of felt involvement with a product across multiple situations.

Construct Validity

Implicit in the Park and Mittal (1985) theory is the idea that the involvement response by an individual to a product may be a function of either the perceived importance it has, or its interest value, or both. This suggests an examination of the relative contribution of the Importance and Interest sub-scales of the *RPII* in predicting information search and processing. Using the eight item sum of information search and processing, and now looking at each product individually, Table 3 shows that for facial tissues, headache remedies, and laundry detergent, Importance is clearly a better predictor of involvement outcomes than Interest. In fact, for the first two products, Interest makes no incremental contribution to the prediction of outcomes. For automobiles, color televisions, instant coffee, and jeans, the reverse is true: Importance is less predictive than Interest, and affords no increment in prediction. For breakfast cereal and mouthwash, outcomes appear to be driven by both Importance and Interest. Taken together, the above analyses indicate the utility of distinguishing between the importance and interest facets of involvement.

DISCUSSION

One finding of this study is the strong performance of Zaichkowsky's *PII* across a number of validation tests. It is exceedingly reliable; it is highly predictive of a broad range of behavioral outcomes associated with involvement; and it is able to successfully discriminate felt involvement across several products and a variety of situations. The last two validation tests go beyond the evidence provided by Zaichkowsky (1985) in her original article. However, the *PII* also appears to suffer several limitations. It is unnecessarily long and elaborate; needlessly difficult to comprehend; insufficiently predictive of information search and processing outcomes; and unduly narrow in its conceptualization. The revised version of the *PII* examined in this paper appears to retain what is best in the original *PII* while offering a number of significant improvements and incurring no major liabilities. The ten item *RPII* is one-half as long as the *PII* while remaining very reliable; uses mostly short and simple words; is strongly predictive of information search and processing; and is effective at discriminating felt involvement across situations.

The most significant weakness of the *RPII* in comparison with the *PII* is its somewhat lower although still quite high reliability, as evidenced by both coefficient alpha and test-retest correlations. This weakness is most apparent at the individual product level. There are probably some situations, involving the correct classification of respondents into groups or with respect to some cut-off value, where this lowered reliability may argue for use of the *PII* instead of the *RPII*. However, even here the investigator will have to weigh the *PII*'s reliability advantage against its more polysyllabic character and the associated difficulties in comprehension. Similar comments apply when the investigator seeks to discriminate among situations.

TABLE 3
Comparison of Importance and Interest Sub-Scales of the RPII in the Prediction of Multiple Outcomes Across Products

Product	R ²		I ²	
	Importance	Interest	Importance	Interest
Automobile	.15	.26	.01 ^a	.12
Breakfast cereal	.37	.38	.04	.06
Color television	.16	.23	.00 ^a	.07
Facial tissue	.17	.06	.11	.00 ^a
Headache remedy	.19	.01 ^a	.19	.00 ^a
Instant coffee	.25	.30	.01 ^a	.06
Jeans	.28	.45	.00 ^a	.17
Laundry detergent	.26	.18	.13	.05
Mouthwash	.13	.12	.03 ^a	.02 ^a

NOTE: I² represents the increment in R² achieved when one of the sub-scales is added to an equation that already contains the other (see Cohen and Cohen 1983). The dependent variable for these analyses is the eight item sum of information search and processing outcomes (see note to Table 1).

^a Indicates a non-significant ($p > .05$) test result.

There is clearly a need for additional theoretical work on how favorability and involvement are related in the case of specific products. For the products we examined, both the RPII and the PII were highly correlated with the attitude (although the interest sub-scale is less so). The fact that the involvement measures are much better than the favorability measure at predicting information search and processing is certainly grounds for retaining the distinction between involvement and attitude. In future research it might be interesting to attempt to identify, on the one hand, products which are favorably regarded but uninvolved, and on the other, products which are unfavorably regarded but involving. Close examination of such products might help to disentangle the relationship between involvement and attitude.

The other conceptual finding of note is that involvement cannot be reduced to either personal relevance (i.e., importance) or interest. Most contemporary definitions (e.g., Bloch and Richins 1983; Cohen 1983; Mitchell 1979; Rothschild 1984; Zaichkowsky 1985) emphasize either the one or the other of these facets. Conceptualizations that identify the involvement construct with interest need to deal with product categories such as headache remedies where interest is quite unable to predict a wide range of behaviors typically associated with involvement. Similarly, conceptualizations that identify involvement with personal relevance need to grapple with product categories such as jeans, where importance is a weak predictor of outcomes. In the

meantime, the results reported here, in conjunction with theoretical work by Park and Mittal (1985) and also Laurent and Kapferer (1985), Ratchford (1987), Vaughn (1980), and Zaichkowsky's (1987) own later work argue for a multidimensional conceptualization of involvement. Whether importance and interest should be modelled as antecedents, or as facets, or as alternative expressions of involvement, is a task for future research. Here again it would be useful to examine some extreme cases: products that are important but uninteresting, or interesting but unimportant.

In conclusion, the findings indicate that the RPII represents a viable alternative to the PII for measuring involvement. Researchers who need a short measure with high criterion validity, and who can tolerate a slight decrease in reliability, may choose to use it in preference to the PII.

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The Use of Multiple Methods to Explore Three-Way Person, Brand and Usage Context Interactions

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ABSTRACT

Previous research on situational influences focused on two-way product-usage context interactions and generally employed single methods. In contrast, the present research investigated three-way interactions between person, product, and usage context, and used multiple methods. Specifically, we studied such interactions in the product category *bar soaps*, with gender serving as the relevant person-level segmentation variable. The results of three experiments provided converging evidence that males, in comparison to females, are less discriminating between different subcategories of soap, and are more likely to cross-use brands in those subcategories across different usage contexts.

INTRODUCTION

Consumers' choices of brand or product often depends on the situation or usage context for which the product or brand is desired. This finding has been established repeatedly in a number of studies that have emphasized the importance of product-situation interactions in explaining consumer choice and in determining market structures (e.g., Belk 1974, 1975; Dickson 1982; Miller and Ginter 1979; Srivastava, Alpert and Shocker 1984). It has also been argued (e.g., Dickson 1982) that in some cases it may be useful to examine person-situation-product interactions, where some product (or brand) choices (or attitudes) are influenced by the usage context and person variables differentially than other products (or brands). For example, a brand of soap may be designated by female users as a "shower" soap and another may be designated a "facial" soap, while male users may not make the distinction.

The person-situation-product interaction can be important since it has the potential for becoming a basis for segmentation if it can be shown that the groups identified by using this criterion have homogeneous within-group responses and heterogeneous between group responses (Dickson 1982). In the soap-brand example above, a person-situation-product interaction might identify two segments of consumers based on a person variable (gender) whose behavior (product choice) varies differentially across different situations or usage contexts (shower vs. facial usage). The behavior within each group or segment (females or males) is homogeneous in that the product x situation interaction can explain it.

While such three-way person x product x usage context interactions were conceptualized by previous researchers (e.g., Dickson 1982; Srivastava et al. 1984), to the best of our knowledge they have never been demonstrated *empirically*. Research in this area has invariably treated all subjects as replicate

experimental units; in other words, subjects were not "blocked" on the basis of relevant person-level variables. (This is not surprising, given that much of this research focused on the product x usage context interaction). In this present research we sought to investigate such three-way interactions in the product category *bar soaps*, with gender serving as the relevant person-level variable. Based on preliminary research, we expected to find systematic differences between male and female consumers in their category structures; that is, in their mental representations of the product category. More importantly, we also expected that these gender differences in category structures would be closely associated with differences in perceptions of appropriateness of various brands of soap for different usage situations (Ratneshwar & Shocker 1991).

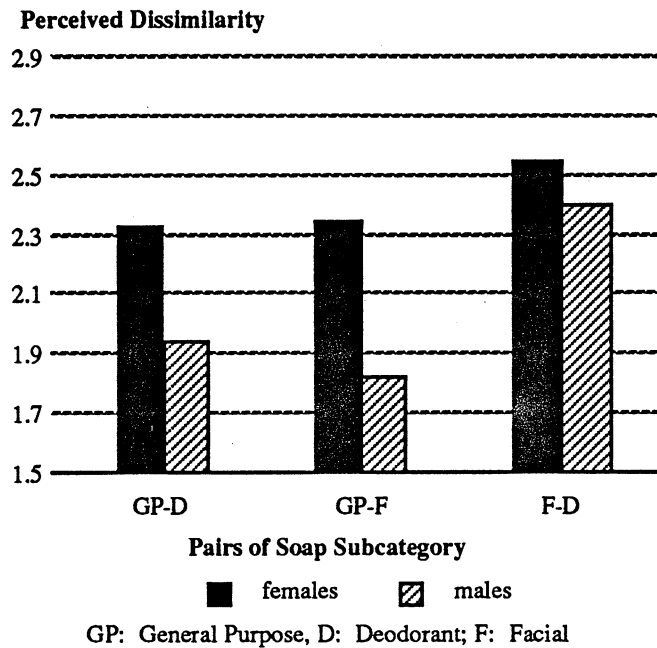
The present research had one additional unique feature, namely, the use of multiple methods. Previous researchers of usage situation influences on consumers' product preferences invariably adopted a single method: typically, one wherein all subjects rated a researcher-specified list of product alternatives across a set of usage contexts. There is some possibility that this method induces demand biases (Reingen 1976; Sawyer 1975). Specifically, Reingen (1976) suggested that the design of these studies (e.g. Belk 1974) may have cued subjects that they were "supposed to" shift their preferences across usage contexts. Hence, we decided on the use of multiple methods to examine whether converging evidence could be obtained on the three-way person-product-situation interaction.

We report three experiments. In Experiment 1, we explored whether males and females differ in their mental representations of various soap brands with the data being obtained from a categorization task. In a second experiment we investigated gender differences in terms of soap brands evoked from memory in different usage contexts. Finally, in Experiment 3 these gender differences were examined in a task where subjects rated a specified list of brands for appropriateness in different usages.

EXPERIMENT 1

A focus group (N=12) was first conducted to obtain some initial insights into gender differences in the manner in which consumers think about the product category. The discussion in the group suggested that in general males were not likely to be as sensitive as females to the usage situation for bar soaps. Concomitantly, males (vs. females) did not appear to discriminate as much between different subtypes of soaps. These conjectures led us to believe that males might differ from females in their mental representations of the product category, and that these differences might be associated with their respective

FIGURE
GENDER DIFFERENCES IN PERCEIVED DISSIMILARITY BETWEEN SOAP SUBCATEGORIES



perceptions of usage appropriateness of different brands. These speculations are consistent with recent research in categorization that suggests that category structures are not fixed across populations (Barsalou 1987), and that such cognitive structures can be goal-derived (Barsalou 1985; and see Ratneshwar and Shocker 1991). This implies that different subpopulations may use different categorization schemes to classify the same group of objects. For example, males and females may differ in the manner of classifying brands of soap because female consumers are more sensitive to usage goals, and are perhaps more expert in the soap category. As a result, they may use finer classifications than do males; that is, they may have more differentiated category structures. Also, the distinctions that they make among various subcategories of soap are likely to be clearer in that, as experts, they are likely to "avoid confusions between brands..." (Alba & Hutchinson 1987). In addition, as experts, their "basic" level might be more specific than that of novices and consequently, their categorical distinctions might be at a lower level than that of novices (Alba & Hutchinson 1987). Because of such differences in categorization, we expected that males might have a broader classification (fewer subcategories, with a larger number of brands of soap per subcategory) than females. Further, we expected that distinctions between brands belonging to different subcategories of soap might be coarser (i.e. less in magnitude) for males than females. Experiment 1 was designed to explore these issues.

Method

Twenty one brands of bar soap that were judged to be familiar by the focus group participants were utilized for the experiment (see Table 3 for the list of brands). A group of 32 female and 30 male undergraduate subjects participated. Subjects were asked to sort 21 cards, each carrying the name of a brand, into no more than eight groups based on perceived similarity. These data were converted into interbrand dissimilarity measures; these dissimilarity measures were computed at the aggregate level separately for each gender (see Ratneshwar and Shocker, 1991, Study 2, for details).

Results

The dissimilarity measures from the male and female groups were used as input to hierarchical cluster analyses and there were no major discrepancies between males and females as to the brands in each cluster. The results of this analysis indicated that both genders clustered the brands into three basic clusters. Based on packaging information, the brands in these three clusters closely corresponded to the usage subcategories Facial, Deodorant, and General Purpose soaps. By analyzing the differences between males and females on perceived dissimilarity of brands, we could determine if males did indeed perceive the brands to be less dissimilar than did females. The dissimilarity of brands that fell into different subcategories formed the data of interest. We analyzed these data to check for effects of Gender in perceived dissimilarity between soap subcategories.

The mean dissimilarity measures for both genders are presented in the Figure. Males and females

alike perceived a large difference between Facial brands and Deodorant brands, although females perceived the difference to be greater ($t_{58}=5.98$, $p<.0001$). With regard to the other comparisons, the General Purpose to Deodorant and General Purpose to Facial, the data show that males perceived greater similarity across categories than did females ($t_{118}=8.5$, $p<.0001$; and $t_{98}=14.64$, $p<.0001$ respectively). Thus, in all cases, females perceived greater dissimilarity across subcategories than did males.

Discussion

The results supported our expectation that males would differ from females in their perceptions of similarity of various subcategories of soap brands. Further, the extent of these differences apparently depends on which two subcategories are compared. Since males tend to perceive *all* brands of soap as more similar than females, they may be more likely to cross-use soaps than females. For example, males may be more likely to use a General Purpose soap for facial usage than females. Further, it is more likely that males may cross-use soaps across the Facial and General Purpose subcategories than across the Facial and Deodorant subcategories. The results of this experiment are consistent with the argument that as experts, females' distinctions among the subcategories of soap are likely to be clearer, and they are less likely to confuse brands. The category structures with which brands of soap are represented in memory apparently are different for males and females. This suggests that the principal cognitive tasks associated with such memory structures, such as brands evoked from memory, are also likely to be affected by gender differences. This issue was investigated in Experiment 2.

EXPERIMENT 2

This experiment examined potential three-way person x product x usage context interactions in the formation of evoked sets. As numerous studies demonstrate, the formation of an evoked set or consideration set, as some authors prefer to call it, is a necessary stage in the phased decision process (Alba & Chattopadhyay 1985, Bettman 1979, Howard & Sheth 1969, Ratneshwar & Shocker 1991, Wright & Barbour 1977). Most previous research into the effects of usage-context on consumer behavior has not considered the evoked-set formation stage, as subjects in these studies were provided with lists of product alternatives (see Ratneshwar and Shocker, 1991, Study 3 for an exception).

Evoked sets are subsets of a larger pool of brands or alternatives represented in category structures in memory (Alba & Chattopadhyay 1985, Bettman 1979). The products that make up these category structures vary in how typical they are of that category, and typicality is a major determinant of recall of category members from memory (Medin & Smith 1984). Recent research has found that typicality may vary as a function of context and of subject population (Barsalou 1985, 1987, Roth & Shoben 1983). That is, categories are now thought to

be flexible enough to allow for different instances to represent those categories depending, among other things, on the context in which they are evoked, and on the population evoking them (Dawar 1991). Evoked set formation is equivalent to the retrieval of instances of a subcategory from memory in a particular usage context (Ratneshwar & Shocker 1991). We can, therefore, expect that evoked sets may vary across subjects based on some subject variable as well as across usage context. In this experiment we examined how evoked sets differ across subject populations *and* usage contexts. Specifically, we investigated gender differences in the types of soap brands evoked by males and females in two different usage contexts (facial usage and shower usage).

Method

Subjects were two different groups of undergraduate students. The first group was made up of 68 marketing majors while the second was composed of 81 psychology majors. Subjects were later blocked on the basis of gender. All subjects evoked soap brands in both usage contexts, making usage context a within-subjects factor. Subjects were asked to name "brands of soap that you might use regularly to wash your face (on your body while taking a shower)". Order of presentation of usage context was counterbalanced across subjects. Subjects were asked to limit the number of brands listed to a maximum of three in each usage context. This was done so as to obtain only those brands that subjects were most likely to retrieve from memory in that usage context.

Subjects' brand listings were classified by the researchers into three types of soap subcategories based on Experiment 1: (1) General purpose, (2) Facial, and (3) Deodorant. A cross tabulation of the brand recall frequencies into the 24 cells generated by crossing Usage Context (two levels) with Groups nested in Gender (four levels) and Soap Subcategory (three levels) was analyzed using Analysis of Variance (ANOVA).

Results

The mean frequencies with which brands were evoked in the different subcategories in each usage context are shown in Table 1. An ANOVA was conducted using "group" as the experimental block. Since there are replicate groups within each gender, we can test all main effects and interactions including the three-way interaction of person-product-usage context. The three-way interaction of gender, usage context and brand recall was marginally significant ($F_{2,4}=5.8$, $p<.07$). Some clear trends are apparent in terms of gender differences. For facial usage, females (vs. males) are much more likely to use facial soaps, and much less likely to use deodorant soaps. For shower usage, females (vs. males) are much more likely to use general purpose soaps, and much less likely, again, to use deodorant soaps. Other interactions were significant too. The significant interaction of Product x Usage Context ($F_{2,4}=42.85$, $p<.01$) confirms previous findings (Ratneshwar and Shocker 1991) that brand recall is dependent on usage context, this time in the category of bar soaps. The significant

TABLE 1
EXPERIMENT 2: MEAN FREQUENCIES WITH WHICH BRANDS IN DIFFERENT
SUBCATEGORIES WERE EVOKED IN DIFFERENT USAGE CONTEXTS

	<u>FACIAL USAGE</u>			<u>SHOWER USAGE</u>		
	<u>SOAP SUBCATEGORY</u>			<u>SOAP SUBCATEGORY</u>		
	<u>GP</u>	<u>F</u>	<u>D</u>	<u>GP</u>	<u>F</u>	<u>D</u>
FEMALES	1.04	0.92	0.33	1.17	0.055	1.50
MALES	1.00	0.235	1.165	0.73	0.04	2.055

GP=General Purpose Brands
 F=Facial Use Brands
 D=Deodorant Brands

Each Entry is the average number of brands evoked per subject.

interaction of the Gender and Product variables ($F_{2,4}=10.33$, $p<.05$) shows that brand recall in this product category also depends on the gender of the consumer -- males and females differ in their recall of different types of soap. The lack of significance of the Usage Context x Gender interaction ($F_{1,2}=.02$, $p>.75$) indicates that the number of brands of soap recalled does not vary by gender with usage context. Further, the lack of significance of the main effect for Gender ($p>.50$) shows that variance due to gender may, in large measure, be accounted for by the Gender x Product and Gender x Product x Usage Context interactions.

Discussion

The results provided a confirmation of previous research by demonstrating the importance of the two-way usage context x brand interactions. However, the marginally significant three-way interaction is probably the most crucial aspect of the present results. Prior studies have generally not looked at the manner in which usage context differences may occur at the stage of evoked-set formation. The results obtained here suggest that differences between segments of consumers may arise at the evoked-set formation stage of the choice process. This implies that later stages (evaluation, choice) may all be affected by the interactions at the evoked-set stage. In Experiment 3 we examine brand appropriateness ratings for a three-way person x product x usage context interaction. This is the method traditionally adopted in studies of situation effects on consumer behavior.

EXPERIMENT 3

The previous two experiments attempted to examine the three-way person x product x usage context interaction by examining differences in perceived dissimilarity and brands of soap evoked in various usage contexts. In this experiment we adopted a method that has traditionally been used in the study of situational effects on buyer behavior (Belk 1974,

Srivastava et al. 1984). In this method subjects are asked to rate the appropriateness of a set of product alternatives for each of a number of usage situations. This yields a Product x Situations x Subjects experimental design. The data so obtained can be analyzed to estimate the contribution to variance of each effect and their interactions. But as noted previously, in past research all subjects have been treated as replicates and individual difference variables have been typically ignored. However, judging by the results of Experiments 1 and 2, it would appear that Gender is an important person-level variable on the basis of which one might expect a person x product x usage context interaction in the bar soap category. Note that the earlier two experiments dealt with earlier stages of the consumer choice process, namely, representation of alternatives and evoked set formation. This experiment is different from the previous two in that the dependent measure used here is much closer to actual behavior (Wicker 1972). In this study we examine the three-way interaction and its magnitude in consumers' ratings of appropriateness of brands of soap to each of three usage contexts.

Method

The 21 brands of soap chosen for the study were generated in a focus group and selected based on subjects' familiarity with them (see Experiment 1). The usage contexts used in this experiment were also generated in the focus group. The three used in this study were: (a) a brand of soap that you might use regularly to wash your face; (b) a brand of soap you might use regularly to wash your hands; (c) a brand of soap you might use regularly on your body while taking a shower. A total of 82 (48 male and 34 female) undergraduate students participated in the experiment for course credit. Subjects rated the appropriateness of each brand (on a seven-point scale) in each usage context, making both brands and situations within-subject factors. The order of

TABLE 2
EXPERIMENT 3: CONTRIBUTIONS TO VARIANCE IN BRAND USAGE
APPROPRIATENESS RATINGS

Source	Percent Contribution	Negligible
Gender		5.6
Subjects within Gender		14.9**
Brands		1.9**
Brands x Gender		14.2
Brands x Subjects within Gender		0.1*
Usage		0.2**
Usage x Gender		0.9
Usage x Subjects withing Gender		26.8**
Brands x Usage		2.9**
Brands x Usage x Gender		32.5
Brands x Usage x Subjects within Gender		----
		100

Note: ** $p < .001$
 * $p < .10$

presentation of the three usage contexts was counterbalanced across subjects.

Results

The analysis aims to estimate the relative contribution to variance in appropriateness ratings of each of the main effects and interactions. This is accomplished by using the expected mean squares of each of the effects (see Belk 1974). The relative contributions of each of the effects and interactions are presented in Table 2. As anticipated, the three-way Gender x Brands x Usage Context interaction was significant ($p < .001$) with 2.9% contribution to overall variance. However the most important sources of variance are the Brands x Usage Context interaction (26.8%, $p < .001$), and the main effect for Brands (14.9%, $p < .001$). The contribution of the main effects of Gender and Usage Context are small. These results are consistent with earlier research on the topic of situational effects, even though the alternatives used in these earlier studies were products rather than brands, and the person variables used were different. Table 3 presents the means of the appropriateness ratings. These means show clearly that males and females tend to have a different pattern of response with regard to brand usage appropriateness ratings.

Stated simply, the data appear to suggest that females are more discriminating than males in their judgement of soaps, and that their judgements depend on the usage context. Males, generally, perceive fewer differences between soap subcategories and would be more prone to cross-use. For example, females rate deodorant brands as most appropriate for shower usage (mean=5.99), only moderately appropriate for use for washing hands (mean=5.19), and not very appropriate for facial use (mean=2.29). While males follow the same ordinal pattern in terms of appropriateness ratings, the mean ratings do not differ as much across usage context. For example, males rate deodorant soaps as reasonably appropriate

for all three situations (mean=6.24 for shower, mean=5.81 for hands, and mean=4.08 for facial use).

GENERAL DISCUSSION

The three experiments reported here provided converging results pointing toward the importance of an interaction between person variables, usage context, and alternatives, in explaining consumer behavior. The three-way interaction of Gender, Usage Context, and Brands was marginally statistically significant in Experiment 2 and statistically significant in Experiment 3. An examination of the cell means for Experiment 3 shows that males tend to rate deodorant brands as being more appropriate in all usage contexts than do females. This is also reflected in the result from Experiment 2 in that males tend to recall more deodorant brands across usage contexts than do females. The results from both experiments seem to show that males' preferences for deodorant brands show very little variations across contexts, while females tend to judge their brands with regard to specific usage context. It is further apparent from the results of both Experiments 2 and 3, that females have a stronger preference than males to use general purpose brands for showering. These findings are corroborated by the results of Experiment 1, which investigated the perceived similarity of brands across subcategories. Females tended to discriminate more between brands based on the typical usage of those brands, while males tend to view these subcategories as more similar.

Unlike previous research in this area (e.g. Belk 1974, Srivastava et al. 1984), we employed multiple methods to assess the impact of three-way person-usage context-brand interactions. In the first Experiment, we examined differences in perceived similarity of brands across gender, using a card-sort task to generate dissimilarity measures. The second experiment used a method that asked subjects to generate alternatives from memory for different usage

TABLE 3
EXPERIMENT 3: CELL MEANS OF BRAND USAGE APPROPRIATENESS RATINGS

BRAND	USAGE					
	FACIAL		SHOWER		HANDS	
	M	F	M	F	M	F
A. General Purpose						
Aloe & Lanolin	4.85	4.47	4.50	5.68	6.10	5.47
Camay	4.83	4.91	4.94	5.18	3.96	5.49
Caress	4.81	4.74	5.08	5.68	3.85	4.74
Dove	5.17	5.18	5.42	5.76	5.21	5.76
Ivory	5.29	5.76	5.90	6.18	6.23	6.65
Jergens	4.40	3.85	4.10	4.94	5.10	6.38
Lux	3.44	2.82	4.00	4.10	4.98	5.26
Palmolive	3.16	2.62	3.12	3.50	4.62	5.03
Pure & Natural	4.69	4.76	4.92	5.53	4.10	5.15
Tone	4.54	4.00	5.73	5.82	5.00	5.24
Subcategory Mean	4.52	4.31	4.77	5.24	4.91	5.42
B. Facial Use Brands						
Clearasil	6.00	6.17	2.14	1.62	1.98	1.47
Clinique	5.81	6.60	2.67	2.56	2.19	2.15
Neutrogena	5.60	6.74	3.29	2.91	2.56	2.50
Noxema	5.96	6.50	2.92	1.91	2.83	1.88
Phisoderm	5.16	6.09	2.73	2.00	2.31	1.97
Subcategory Mean	5.71	6.42	2.73	2.20	2.37	1.99
C. Deodorant Brands						
Coast	4.21	2.24	6.17	5.91	5.89	4.94
Dial	4.46	2.50	6.12	6.00	6.12	5.50
Irish Spring	4.04	2.35	6.21	5.82	5.92	5.29
Safeguard	3.92	2.21	6.56	6.21	5.73	5.18
Shield	3.79	2.12	6.15	6.10	5.46	5.12
Zest	4.04	2.32	6.21	5.88	5.71	5.09
Subcategory Mean	4.08	2.29	6.24	5.99	5.81	5.19

M=Males; F=Females

Note: Appropriateness Ratings were obtained on a 1-7 scale.

contexts. Finally, in Experiment 3, we reverted to the traditional method, wherein subjects rated a set of brands across different usage contexts. Thus, each of the three experiments in this study examined the three-way person x product x usage context interaction at a different stage of the consumer choice process. Our results show that the three-way interaction can explain differences in the mental representation of soap brands for males vs. females (Experiment 1); differences in the evoked set of soap brands considered in different usage contexts (Experiment 2) and differences in the evaluation or appropriateness judgements (Experiment 3). Previous research has generally only examined the last of these stages of the consumer choice process.

In addition, our operationalizations of the person, product, and situation variables differed

somewhat from those used in previous research. The person variable used in this study was gender, the product variable was brands of soap, and the usage context was three usage situations for soap. In spite of these differences, the results of Experiment 2 and especially Experiment 3 are remarkably consistent with the results of earlier studies. Specifically, the importance of the two-way interaction of Brands x Usage Context, and Brands x Person, is evident in this study as it has been in previous studies. Further, the converging pattern of results -- notwithstanding the differences in method -- from three experiments suggests that such interactions are "real," and not due to methodological artifact (cf. Reingen 1976).

Previous research has pointed out the importance of usage context interaction in

determining customer segments and defining market structures (Belk 1974; Dickson 1982; Ratneshwar & Shocker 1991). The three-way person x product x usage context interaction has the potential for becoming a basis for segmentation if it can be shown that the groups identified through this criterion have homogeneous within-group responses and heterogeneous responses between groups (Dickson 1982). The results in this study indicate that this can indeed be the case. As the results show, the person by situation segments that could be identified on the basis of these results are more homogeneous within segment than across segment. Specifically, these results suggest that the mental representations, evoked set formation, and appropriateness judgements are specific to gender x situation groups. It is useful for marketers to understand that some segments (e.g. women) may be more sensitive to usage context differences than other segments (e.g. men) for some products. In addition, some brands (e.g. deodorant brands) may be more influenced by person x situation factors than others (e.g. facial and general purpose brands).

Categories and category structures, especially in marketing situations are often goal-derived. Usage contexts may serve to "frame" or define consumer goals by specifying the specific benefits sought. Thus, perceptions of usage appropriateness may depend on the extent to which females or males perceive that a particular brand will provide the specific benefits sought in that context. These usage appropriateness perceptions, in turn are likely to impact on the mental representation of categories.

Finally, we note that the present research attests to the importance of research on the interaction between person, usage context, and product variables at various stages of the consumer problem-solving process. Future research may be able to verify whether there are systematic differences in the kinds of interactions that explain each stage of the problem solving task, across a person variable such as experts vs. novices. For example, experts may take into consideration a greater number of factors than novices in making their evaluations, but may be just as heuristic as novices in the creation of evoked sets.

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Chernoff Faces: A Useful Technique for Comparative Image Analysis and Representation

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ABSTRACT

While consumer researchers often measure image in a decomposed attribute-by-attribute manner, it is easy to recognize that image is greater than the sum of its parts. Brand image is an important concept for consumer behavior and its relationship to choice behavior is being established in the literature. This paper presents a new approach for globally representing quantitative image impressions (data) and demonstrates its usefulness empirically. Using Chernoff face icons, the consumers' perceptions of multi-dimensional, multi-object attributes can be readily displayed for visual analysis.

Consumer researchers recognize the important relationship between consumer image perceptions and purchasing behavior. In fact, it has been said that most individuals base their purchasing actions on the type of image a product portrays (Jacoby and Mazursky 1984). Thus, because of the importance of the idea, consumer researchers and strategists have developed many ways to measure consumer image perceptions.

Image measurement and analysis techniques range from the traditional quantitative multi-variate ones, to qualitative data collection and analysis (see Zimmer and Golden 1988 for a review and content analysis application), to the recent introduction of information theoretic analysis for scaled image data (Golden, Brockett and Zimmer 1990). However, irrespective of analytical approach, the effective display of multidimensional findings is often very cumbersome and its meaning difficult to represent.

Brand and retail image is generally recognized to be multi-dimensional (Golden, Albaum and Zimmer 1987) and researchers often wish to compare image results across alternative product offerings. Indeed, one way of comparing images of competitive products is to substitute competitors' brand names with your own and evaluate the relative consumer responses across multiple attribute dimensions in order to develop a comparative assessment of consumer perceptions (Jacoby and Mazursky 1984). However, sometimes the informational analysis desired goes beyond the "Are the differences statistically significant?" to focus on "What does this mean?" and "How can I interpret or present it?"

This paper develops and empirically demonstrates the idea of using icons, specifically

geometrically derived Chernoff faces, as a tool to comprehend and display multi-variate image data (in this case, retail store image data). Via SYSTAT the Chernoff face analysis program is now readily available and this technique has been shown to be more effective than many other icons for similarity comparisons (Wilkinson 1983). Chernoff faces can help behavioral analysts and strategists represent the results of image data in a simplified and comprehensive manner. In addition, Chernoff faces can be used as the sole method of analysis or combined with other statistical techniques to assess statistical effects, depending on the consumer analysts needs at the moment of inquiry.

The conceptual underpinnings of Chernoff faces are highly mathematical in nature (see Chernoff 1973), but the results allow for immediate visual comparisons across alternative image objects (such as stores or brands). No previous research has explored the usefulness of this technique for consumer behavior or image perceptions.

CHERNOFF FACES

A typical Chernoff face is a cartoon-like caricature of the human face developed through a series of highly mathematical and geometrical relationships (see Figure). Chernoff surmised that individuals can distinguish the subtle differences in each facial feature and can develop an image of a person based on these differences. He used this idea to create an image of multi-variate data sets where each variable was assigned a particular facial feature. Depending on the relative magnitudes of the data, the facial characteristics create a unique image for a given multi-variate data set.

Some studies using Chernoff faces have been conducted in the political, psychological and medical areas (see Wang 1978). One published paper, related to business, developed the faces as a representation of the mathematical results of the financial performance and future predictions for various types of businesses, using faces as a visual indicator of past performance and current status (Huff, Mahajan and Black 1981). However, most of the work has been conducted in the area of statistics, using Chernoff faces as a method of clustering multidimensional data (Jacob 1983, Jacob et. al 1976). In fact, this was the original purpose behind the development of Chernoff Faces: Visual clustering of multi-dimensional statistical data. This paper focuses on a useful consumer behavior application of Chernoff faces and the mathematics of the theoretical framework behind the technique is left to its discussion in other literature (see Chernoff 1973).

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comparison). Thus, the usefulness of the technique for image display is not limited to inter-brand comparisons but also includes intra-brand comparisons across specific consumer segments of interest (in this case, segmentation by purchase/store trip frequency).

METHODOLOGY

Data Collection and Description

Chernoff faces were developed from the quantitative results of a nationwide survey of 453 consumer mail panel members. The final sample generally represented the geographical distribution of the United States and was 58.1 percent female. The respondents' annual household income distribution was: 17.5 percent earned less than \$10,000 per year, 25.8 percent earned between \$10,000 and \$19,999 per year, 23.1 percent earned between \$20,000 and \$29,999 per year, 15.7 percent earned between \$30,000 and \$39,999 per year, 7.7 percent earned between \$40,000 and \$49,999 per year and 10.2 percent earned \$50,000 or more per year. Nearly 16 percent of the respondents were under 30 years old, 22.7 percent were between 30 and 39 years, 16.8 percent were between 40 and 49 years, 19.0 percent were between 50 and 59 years and 25.8 percent were over 60 years old. Ten percent of the respondents had less than a high school education, 35.9 percent were high school graduates, 26.6 percent had some college education and 27.5 percent had four or more years of college.

In the survey instrument, respondents were asked to indicate their perceptions of both Sears and K-Mart on a seven-point numerical comparative scale (see Golden, Albaum and Zimmer 1987 and Golden 1991), an economical semantic differential-type scale format for image comparisons across multiple image objects and dimensions. The numerical comparative scale has also been shown to result in good quality data (Albaum and Golden, forthcoming).

The image dimensions used in this study were identified through an exhaustive literature review. The retail store image dimensions retrieved from the literature were then culled to:

- (1) reflect a comprehensive array of image attribute dimensions,
- (2) represent attributes most frequently investigated in the literature, and
- (3) reduce redundancy in attribute dimensions.

This process resulted in the isolation of nineteen image attributes whose bi-polar scale construction translated to: inconvenient/convenient location, low/high price, dirty/clean, hard/easy to get credit, cluttered/spacious, unpleasant/pleasant atmosphere, low/high quality merchandise, dull/exciting, bad/good selection, unsophisticated/sophisticated customers, unfriendly/friendly salespersons, low/high caliber, dislike/like, unhelpful/helpful salespersons, bad/good reputation, uncongested/congested, not enjoyable/

enjoyable, hard/easy to exchange merchandise, bad/good value. In the numerical comparative scale presented to respondents, the left most extreme point of each bi-polar adjective pair was represented by "1", with the right extreme being represented by "7".

Respondents were also asked to indicate how frequently they shopped at Sears and K-Mart. For the intra-store Chernoff face analysis, responses to this question were divided in order to represent Infrequent Shoppers (once a year or less), Moderately Frequent Shoppers (two to twelve times a year), and Frequent Shoppers (more than twelve times a year). The survey queried respondents about other issues and scale formats not relevant for this paper.

Chernoff Face Analysis

The mean and variances were computed for all nineteen attributes across the three shopping frequency categories. Based on these data, Chernoff faces were constructed using the SYSTAT software (Wilkinson 1988, pages 380-381). Twenty variables can be included in a single Chernoff face analysis; thus, the nineteen image attributes were within the possible computing range. Chernoff faces were developed for each store and each patronage frequency group separately.

Since an individual can perceive changes in some facial characteristics better than in others, it is feasible to assign the most important variables to features such as the curvature of the mouth, half-face height, half-length of eyes, and length of brow (Soete and Corte 1985) to get a better understanding of the image created. The Figure displays summary information on the mathematical construction of a Chernoff face and the particular facial characteristics that have been associated with each image attribute in this research.


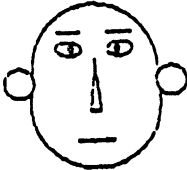
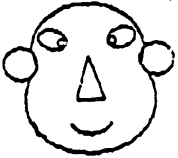
RESULTS

Tables 1 and 2 present the results of the analysis for Sears and K-Mart, respectively. Mean ratings for each image attribute and the group size (n) are presented, as well as the resultant Chernoff face compilation.

Instructive of the usefulness of Chernoff faces is for the reader to place his or her hand over the faces and try to interpret the comparative image of Sears and K-Mart for the various shopping frequency groups from the numerical data alone. The comparison becomes very cognitively complex and difficult to summarize. However, when one's hand is removed from the Chernoff faces, a visual comparison of the image across stores and shopper frequency categories becomes immediately apparent. In addition to being a sophisticated mathematical representation, Chernoff faces provide a very quick and lucid image analysis when compared to the process of analyzing numerical results across each attribute. Thus, the resultant usefulness of Chernoff faces for image analysis and comparative image representation.

Focusing on Table 1, it is immediately apparent from the Chernoff faces that image perceptions become more "favorable" as one moves from the "infrequent shoppers" group to the "frequent

TABLE 1
Perception of Sears through Shopping Frequencies

Shopping Characteristics	Infrequent		Moderate		Frequent	
Chernoff Face Characteristics						
Attributes	Mean	n	Mean	n	Mean	n
In/Convenient Location	3.82	77	4.87	283	5.80	83
Low/High Price	4.96	73	4.69	282	4.49	83
Dirty/Clean	5.49	71	5.41	281	6.08	83
Hard/Easy Credit	4.61	67	5.57	260	5.39	79
Un/Pleasant Atmosphere	4.19	72	5.35	282	5.66	83
Low/High Quality Merchandise	4.40	71	5.41	283	5.70	82
Dull/Exciting	3.37	70	4.14	280	4.63	81
Bad/Good Selection	4.07	72	5.01	283	5.47	82
Un/Sophisticated Customers	4.09	71	4.62	278	4.85	80
Un/Friendly Salespersons	3.62	71	4.70	282	5.17	82
Low/High Caliber	4.10	71	4.75	275	5.31	82
Dislike/Like	2.89	71	4.87	280	5.75	82
Un/Helpful Salespersons	3.80	70	4.72	282	5.44	82
Bad/Good Reputation	4.67	71	5.62	281	5.83	82
Un/Congested	4.30	69	4.36	281	4.37	81
Not/Enjoyable	3.57	70	4.76	279	5.31	82
Hard/Easy to Exchange	4.38	66	5.53	272	5.81	80
Bad/Good Value	4.23	69	5.24	282	5.88	82
Cluttered/Spacious	4.43	70	4.95	283	5.13	82

shoppers" group. The association between shopping frequency and image perceptions is very quickly visualized.


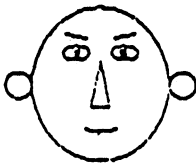
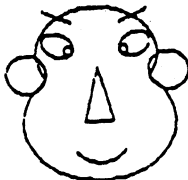
These same general results hold for Table 2, K-Mart. However, comparing the results for Sears (Table 1) and K-Mart (Table 2), Chernoff faces also demonstrate that the constellation of image attributes for K-Mart within the moderate and frequent shoppers is somewhat stronger than for the same shopper groups at Sears. Referring to the Figure which lists the facial characteristics associated with the various image dimensions, the mouth is associated with perceptions of location convenience. Thus, the up-turned mouth for K-Mart in Table 2 illustrates a stronger positive image perception of location convenience vis-a-vis that perceived for Sears (as shown in Table 1).

Likewise, two other important facial characteristics are the position of the pupils and the

slant of the eyes. These are associated with the overall affect toward the store (dislike-like) and perceptions of the customers' sophistication, respectively. For both Sears and K-Mart, persons who shopped more frequently at the stores liked the stores better and perceived the stores as having more sophisticated customers. These results are depicted by the pupils moving inwards as the perceptions of positive affect increase and the eyes slant more outward as the perceptions of customer sophistication increase. The direction of change for each attribute represented by a given facial feature is indicative of the direction of the attribute rating on the numerical comparative scale results.

An attribute-by-attribute analysis can be conducted in this manner; however, this is not the primary advantage of Chernoff faces because an attribute-by-attribute analysis can also be seen rather readily from the tables. The advantage of Chernoff

TABLE 2
Perception of Kmart through Shopping Frequencies

Shopping Characteristics	Infrequent		Moderate		Frequent	
Chernoff Face Characteristics						
Attributes	Mean	n	Mean	n	Mean	n
In/Convenient Location	3.36	61	5.02	197	6.03	172
Low/High Price	2.93	57	3.47	194	3.56	171
Dirty/Clean	4.05	55	4.91	195	5.53	169
Hard/Easy Credit	3.75	44	4.68	146	5.03	130
Un/Pleasant Atmosphere	3.39	57	4.53	197	5.34	172
Low/High Quality Merchandise	3.24	58	3.96	197	4.62	171
Dull/Exciting	3.21	58	3.78	195	4.43	165
Bad/Good Selection	3.76	58	4.56	196	5.32	169
Un/Sophisticated Customers	2.78	56	3.34	194	4.02	165
Un/Friendly Salespersons	3.63	57	4.35	196	5.12	169
Low/High Caliber	3.02	56	3.95	191	4.50	165
Dislike/Like	2.98	56	4.54	192	5.72	167
Un/Helpful Salespersons	3.26	56	4.12	194	5.15	169
Bad/Good Reputation	3.80	56	4.84	192	5.52	166
Un/Congested	4.49	56	4.56	191	4.75	167
Not/Enjoyable	3.49	55	4.31	193	5.15	166
Hard/Easy to Exchange	3.86	45	4.98	179	5.97	161
Bad/Good Value	4.07	56	4.69	192	5.55	166
Cluttered/Spacious	3.31	56	4.06	194	4.79	171

faces is the rapid visualization of the global image represented by the constellation of attributes. For example, across all attributes, the perceptions of K-Mart among moderate shoppers appear to be more positive (looking at the constellation of attributes represented by the whole face) than do the perceptions of Sears among its moderately frequent shoppers. The same can be said about the "frequent shoppers," as the K-Mart frequent shoppers display slightly more general enthusiasm than do the Sears frequent shoppers.

In using Chernoff faces to graphically represent multi-variate data, the researcher should keep in mind that an attribute-by-attribute comparison may mislead the viewer into believing there are strong differences where no statistically meaningful differences exist. For the brand image example presented in this paper, the appropriate focus is on the rapid visualization advantage of the *global* image and

not on over-emphasis of attribute-by-attribute comparisons. Otherwise, the value of Chernoff faces analysis may be obscured or the usefulness abused.

CONCLUSION

A brand or a store's image is greater than the sum of its parts (Zimmer and Golden 1988). Similarly, the constellation of a person's facial expressions is greater than the sum of its parts; thus, faces can be a useful mechanism for globally representing image response data. As consumer researchers continually recognize the relevance of image perception for choice behavior, it becomes more important to be able to accurately and precisely portray the results of image analyses. Facial representations provide a useful mechanism for so doing.

Although highly mathematical in nature and originally developed by Chernoff for the purpose of visual clustering, Chernoff faces do not circumvent the

usefulness of other statistical analyses to discern meaningful differences in response data. Chernoff faces do provide a quick and accurate technique for the depiction of comparative image data, and the main advantage comes from the fact that each data point does not need to be compared with others in the same category, rather, an overall image gestalt can be illustrated for visual comparison purposes.

Extending the usefulness of Chernoff faces, this paper showed the development of Chernoff faces for image comparisons both within and between brands. Inter-brand comparisons allow immediate visualizations of image differences between or among consumer choice alternatives. However, focus on comparisons of specific segments of interest within a brand (intra-brand) quickly reveals the relationships between image perceptions and behavior.

This study focused on retail store image (between and within alternative brands of mass merchandisers), but the same technique can be used for any other type of image portrayal situation for which the researcher has voluminous data and an accurate visual representation of results is desired. In addition, Chernoff faces can be used to augment other types of statistical analyses that focus on significant differences between image attributes. They provide consumer researchers with an additional tool for more complete analysis, understanding and representation of the relationships between image perceptions and behavior.

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Cocaine As Innovation A Social-Symbolic Account

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A social problem exists primarily in terms of how it is defined and conceived in a society... A societal definition determines whether the condition exists as a social problem. The societal definition gives the social problem its nature, lays out how it is to be approached, and shapes what is done about it.

--Blumer, 1971, p. 300

INTRODUCTION

Cocaine is currently used by an estimated 6,000,000 consumers in the United States (U.S. Department of Health and Human Services 1987), an increase of 150% since 1980. Its use has exacted a high social cost: 3,308 deaths and 62,141 emergency room admissions during the past year have been attributed to cocaine consumption (King 1989). But producing and distributing cocaine is an extremely profitable enterprise; in 1988 the Colombian cartel based in Medellín grossed an estimated 5 billion dollars (Gugliotta and Leen 1989), despite a record number of cocaine seizures in the United States ("Cocaine Avalanche," 1989, p. 42).

As the opening passage from Blumer (1971) suggests, current metaphors in the popular culture view of cocaine are instructive in characterizing its present social meaning. The media typically characterize cocaine use as an *epidemic* (Washton 1987), a *disease* (Lewis 1989; "So Little Time, So Many Cases," 1989), or a *plague* (Massing 1989; O'Rourke 1989). Producers and distributors are variously described as *drug lords* (Morgenthau 1989a; Shannon 1989), *drug barons* (Serrill 1989), and *drug kingpins* (Morgenthau 1989b; Morgenthau 1989c). Those members of the law enforcement community who *battle* or *make war* (Morgenthau 1989b; Serrill 1989; Waldman 1989) against them are referred to as *troops* (Schwartz 1989), *soldiers*, and *warriors* (Waldman 1989). Those who use cocaine are termed, within this same ideology, as *addicts*, *abusers*, and *victims* ("Cocaine Babies," 1989; Cole 1989; Massing 1989; Miller 1989; Morgenthau 1989d).

This metaphoric imagery obfuscates several significant aspects of cocaine consumption. First, by depicting cocaine as a *disease*, we ignore the fact that it possesses several positive attributes which attract the consumer to it in the first place. Cocaine is perhaps the most powerfully reinforcing chemical available to man (Allen 1987); in initial use and sometimes for time periods extending over several years, it creates positive feelings in the consumer (Byck 1987). Diseases, typically, do not do this. To understand the etiology of cocaine then, we must begin to recognize and deal with its positive, as well as destructive, attributes.

Second, cocaine users are typically characterized as either *addicts* and *victims* of the disease or cocaine or as *abusers* of an illicit substance. The first viewpoint is premised upon the assumption

that the user is essentially blameless and has become 'infected' with cocaine. In this view, medical treatment and rehabilitation is the appropriate remedy (Bratter and Forest 1985).¹ The view that cocaine consumers are drug *abusers* leads to a more punitive policy which advocates criminal penalties such as imprisonment, fines or both (Musto 1987).² What both of these perspectives lack, however, is the recognition that persons who use cocaine are, in essence, *consumers* who through some reasoning process have *chosen* to ingest cocaine. By ignoring the dynamic of choice behavior, we may overlook valuable clues as to why some people do consciously seek out and consume cocaine. By viewing cocaine users as consumers we may gain useful information not only about the underlying choice processes preceding the decision to use the drug, but also about the effects of initial and continued use of the drug on the consumer's choice processes regarding this product.

Third, by casting cocaine producers and distributors as evil, powerful lords and barons, we may overlook one of the most basic aspects of the cocaine phenomenon. The cocaine cartel, however illegal its activities may be, is in fact a *business* (Gugliotta and Leen 1989; Williams 1989). Just as any other enterprise, it thrives on sound marketing strategy. As a business, the cartel will concern itself with sensing what consumers want and with supplying new products to meet shifts in demand and to attract new users.

Finally, by depicting efforts to reduce cocaine consumption as a *moral war* of good versus evil, we cloud issues that are grounded in consumers' life styles and socio-emotional preferences, with normative notions of right and wrong. As is widely acknowledged, consumers do not necessarily make decisions regarding drug consumption on moral grounds, and the morality of drug consumption itself is often situation specific and dependent upon historical context (Bakalar and Grinspoon 1984; Inglis 1975; Walker 1981). As Gusfeld (1967, p. 187) observes, "... Deviance designations have histories;

¹Use of the disease metaphor to conceptualize drug use implies the corresponding metaphor that drug users are *sick* (i.e., addicts or victims). As Gusfeld (1967) observes, "... the designation of a person as ill changes the obligations which others have toward the person... [The sick person] has now become an object of welfare, a person to be helped rather than punished... The sick person is not responsible for his acts" (p. 180).

²As Gusfield (1967) has noted, "crimes of vice" such as gambling, alcoholism, prostitution, and drug addiction are often portrayed in the mass culture (as well as the scientific one) as examples of moral corruption. They are seen as *crimes* against both God and the social order and, hence, are to be treated punitively.

the public definition of behavior as deviant is itself changeable. It is open to reversals of political power, twists of public opinion, and the development of social movements and moral crusades." As I will show, both the modality and the morality of cocaine consumption have shifted radically over the past 100 years in the United States.

THE INNOVATION PARADIGM APPLIED TO COCAINE CONSUMPTION

To supplant the current disease-and-war metaphors used to conceptualize and formulate public policy regarding cocaine consumption, I develop a model based upon the innovation-diffusion paradigm. The innovation-diffusion paradigm has a well-established acceptance within marketing and consumer research (Arnould 1989; Gatignon and Robertson 1985; Hirschman 1980; Midgley 1976; Robertson 1971), as well as several ancillary disciplines (Rogers 1983). The distinct advantage of utilizing this paradigm, as compared to the disease-and-war metaphors now commonly applied to cocaine usage, is that by viewing cocaine as an innovation which follows a diffusion pattern through various societal strata and subcultures, we can better understand why the demand for cocaine exists, how individual and group adoption practices come into existence, and based on this knowledge, formulate more effective demarketing strategies for reducing destructive forms of demand for this substance.

Cocaine is not a disease; it is a *product* with distinctive positive and negative attributes which determine its impact not only upon individual consumers but upon entire subcultures and societies. Most significantly, it is a *symbolic* as well as technological innovation (Hirschman 1981), which has been introduced and reintroduced in a variety of symbolic and chemical forms over a period of at least 5 millennia (Walker 1981). By comprehending cocaine as a product innovation, we can come to better understand not only why it is consciously, purposefully and willfully adopted by consumers, but also how to best aid those consumers for whom its use has become destructive and dysfunctional.

THE ORIGIN OF COCAINE: AN INNOVATION IS DISCOVERED

South American Indians discovered the stimulant qualities of the leaves of the *Erythroxylon coca* bush growing in the high Andes two millennia before the Inca Empire (Walker 1981). Coca leaf chewing as a remedy for fatigue and as medication for a variety of sicknesses endemic to the high altitudes was common in the Andes in pre-Columbian times (Walker 1981) and continues unabated to the present day (Allen 1987a). The product form of cocaine used in this context is a wad of fresh leaves which are formed into a ball or cud in the mouth and chewed together with potash, an alkaline substance which facilitates the release of cocaine hydrochloride from the leaf and aids its absorption by the body (Grinspoon and Bakalar 1987).

This practice continues in the Andes to the present day. As Grinspoon and Bakalar (1987, p. 188) note, "In many parts of the Andes and Amazon today, coca is the everyday stimulant drug, used more or less like coffee, tea, chewing tobacco, and *khat* are used in other areas of the world... In the form of leaf powder or tea, coca is taken for toothache, ulcers, rheumatism [and] asthma... Coca is also a local anesthetic. The juice of the leaf can be applied to soothe eye irritations or gargled for hoarseness and sore throat. Coca contains minerals, vitamin C and some B vitamins, and... is an important source of these nutrients in the Andean diet." Thus, in its earliest form as a product innovation, cocaine was, and continues to serve, not as a disease, but rather as a *cure*.

The Andean Indians had been using coca leaves as a stimulant prior to their conquest by the Inca Empire. In contrast to the *profane* (Belk, Wallendorf, Sherry 1989) use to which the plant was put by the Indians, the Incas regarded coca as having divine origin and believed it served as a sacred linkage to the gods. "They believed that they were the direct descendants of the god Inti, who had created the coca leaf to alleviate hunger, thirst, and to ease the burden of their life" (Allen 1987a, p. 7). As a result of their view of coca as a *sanctified product* (Belk, Wallendorf, and Sherry 1989), the Incas restricted its use to those having high social position or political rank; its use came to be prohibited among the general population (Allen 1987a). Thus, the first known *reduction* in the previously widespread adoption of this innovation came as a result not of cocaine's perceived destructive or immoral effects, but rather because it was seen as representing divine power and goodness, and was therefore appropriate only for certain consumers.

The Catholic Spanish, arriving in the 1500's, initially viewed cocaine consumption as a form of spiritual evil and devil worship and attempted to eradicate its use (Inglis 1975). However, even as the Church began its campaign to outlaw coca on the grounds of what was perceived to be its immoral and ungodly nature, a second -- secular -- force was already at work in the Spanish colonial culture. The Spanish colonialists who had opened vast tracts of Bolivia, Peru and Colombia to cultivation noted that their Indian workers performed much better when permitted to pursue their habit of coca leaf chewing. As was a frequent occurrence in colonial empires, the secular interest of the State in increasing its wealth won out over the sacred interest of the Church in salvaging Indian souls. "So the Indians, though they were punished if caught using coca in religious observances, were allowed to take it while working, in order that they might be able to put in still longer hours" (Inglis 1975, p. 51). Thus, coca leaf chewing was allowed to re-diffuse throughout the Indian (and to some extent, the Spanish) population of South America from the mid-1500's onward. Now purged of its sacred meaning as a religious symbol, it was reborn as a socially acceptable secular stimulant. *El coqueo* continues to serve these adopters in this capacity to the present day.

COCAINE AS AN INNOVATION IN EUROPE AND THE UNITED STATES: FIRST DIFFUSION CYCLE

From the time of its discovery in the New World, the cocaine innovation had periodically been brought back to Europe. However, because of the long, damp ocean voyage, the batches of coca leaves frequently lost their potency. Hence, the reports of cocaine's stimulant and euphoric qualities upon Indian consumers were viewed with some skepticism by Europeans (Allen 1987a). In 1855, Friedrich Gaedecke, a German chemist, succeeded in isolating the alkaloidal form of cocaine from the coca leaf, and in 1859 Albert Niemann named the alkaloidal substance *cocaine*. Also in 1859, Pablo Mantegazzo published a significant scientific essay which credited this new product with the ability to reduce fatigue, increase strength, elevate spirits, and increase sexual desire (Allen 1987a) -- a significant set of positive innovation attributes.

Between 1863 and 1865, Angelo Mariani developed the first commercial product containing cocaine, a beverage called Vin Mariani, which contained cocaine dissolved in a wine base. An instant success, Vin Mariani was consumed by such celebrities as Robert Louis Stevenson, Henrik Ibsen, Thomas Edison, Pope Leo XIII, Ulysses S. Grant and Sarah Bernhardt (Erickson *et al.*, 1987). An advertisement for the product claimed that it "nourishes, fortifies, refreshes, aids digestion, strengthens the system, is unequalled as a tonic-stimulant for fatigued or overworked body and brain, and prevents malaria, influenza and wasting diseases" (Byck 1974, p. 11).

The pharmaceutical properties of cocaine came to the attention of Sigmund Freud, who believed it might be useful in curing the morphine addiction of a close friend (Byck 1974). Freud adopted the innovation, himself, and wrote a scientific paper, "Gber Coca," describing its many positive benefits for the consumer: "One senses an increase of self-control and feels more vigorous and more capable of work. One... finds it difficult to believe that one is under the influence of any drug at all... Long-lasting, intensive mental or physical work can be performed without fatigue; it is as though the need for food and sleep... were completely banished... (1885 [1974], p. 60).

Freud's enthusiastic endorsement of cocaine enhanced the innovation's scientific and social status. It was quickly incorporated in a variety of pharmaceutical and over-the-counter medical preparations. By 1885, the Parke-Davis Company had prepared a monograph for physicians, which promoted the use of cocaine for medical applications (Byck 1974).³ Several American scientists and physicians encountered medical information regarding cocaine's beneficial properties and began to

experiment with the innovation. One of them was Dr. William Halsted, a preeminent physician and founder of the Johns Hopkins Medical School. Halsted discovered cocaine's effectiveness as a nerve-block anesthetic, but unfortunately began injecting himself with the drug. His resulting addiction to cocaine ruined his career (Allen 1987a; Byck 1974). Halsted's negative experience, however, did not stop the commercial diffusion of a plethora of cocaine-containing new products. Erickson *et al.* (1987, p. 8) report: "A market for cocaine had been created and the patent medicine industry wasted no time in taking advantage of the opportunity. Various remedies containing cocaine were soon available, not only at the drugstore and corner store but through the mail and door-to-door. Assorted tonics and powders containing cocaine were sold as cures for a range of ailments, including headaches, colds, toothaches, asthma, piles, impotence and diseases of the blood."

In 1885, John Styth Pemberton, a Georgia pharmacist, concocted his own innovative tonic, designed to compete with Vin Mariani as a nerve and brain stimulant. Made from a secret syrup containing both cocaine and caffeine, the new brand was christened Coca-Cola and became a widespread success (Allen 1987a).⁴ A number of competing beverage brands including Care-Cola, Dope Cola, Kola-Ade, and Wiseola soon appeared on the market. In addition to tonics and beverages of various concentrations, cocaine was available over-the-counter in drugstores in a powder form, which was ingested nasally (Erickson *et al.*, 1987).

LEGISLATION TO RESTRICT COCAINE DIFFUSION

At the time of cocaine's first diffusion cycle in the United States, there was no legislation prohibiting any drug from being consumed or used in commercial products (Musto 1987). In essence, cocaine and a variety of other drug innovations (e.g., opium, marijuana, hashish) were circulated in an unrestricted and unregulated marketplace. Their adoption and diffusion patterns were entirely determined by consumer demand.

Despite growing concern that cocaine could be addictive and racist fears by whites that its consumption was creating a crime wave among intoxicated blacks, cocaine consumption increased (Allen 1985; Musto 1987). It is estimated that Americans consumed *as much* cocaine in 1906 as they did in 1976, with only half the population base (Walker 1981). However, the diffusion of cocaine peaked in 1906 -- twenty years after its introduction. Public attitude had begun to move against the innovation and this sentiment was socially formalized in 1906 with the passage of the Food and Drug Act (Musto 1978). By 1908, cocaine importation had dropped to one-half the 1907 level, and public attitudes now changed toward cocaine consumers. Users were now viewed as "cocaine fiends" and the best

³It is significant to note that at the time Parke-Davis was extolling the value of cocaine, the Bayer Pharmaceutical Company was promoting its own brand of innovative drug recently isolated from the opium poppy--Heroin (Walker 1981).

⁴Cocaine was removed from Coca-Cola in 1903 (Phillips and Wynne 1980).

course of action was believed to be letting them die (Musto 1978). Cocaine usage among the general population began to decline dramatically, but its consumption and diffusion remained strong and even increased among one segment of users -- intellectuals and writers, who believed it enhanced their creativity (Allen 1987b).

By 1914, laws regulating the consumption and sale of cocaine had been passed in 46 states; that same year the Harrison Act was passed, which placed a complete national ban on cocaine (Grinspoon and Bakalar 1987; Walker 1981). Passage of the Harrison Act and an even more restrictive amendment to it in 1919, further reduced the diffusion of cocaine by giving it a negative social sanction (Gusfeld 1967) and increasing its price by 300 percent (Musto 1978). Now a prohibitively expensive product and labeled as a symbol of social deviance (Gusfeld 1967), cocaine consumption became restricted to the bohemian-jazz counterculture and to the black ghetto (Allen 1987b). Cocaine consumption remained secluded in these two marginal subcultures through the 1960's. And then, something happened.

THE SECOND COMING OF COCAINE: AN INNOVATION RE-INVENTS ITSELF

The 1960's were an era of enormous social and political upheaval; groups which previously had felt disenfranchised and disempowered burst forth with demands for equality and social recognition. Within the hippie counterculture which flowered during the late 1960's and early 1970's, forbidden drugs, such as cocaine, marijuana, and the hallucinogens, were not only a way to transcend bodily boundaries and achieve states of altered consciousness, but were also a conscious political effort to undermine the existing dominant (and, in their view, repressive) social order (Bakalar and Grinspoon 1984; Blumer 1971; Gusfeld 1967).

Within this radically restructured societal context, cocaine experienced a resurgence as an innovation, albeit one with a different symbolic significance than in its first diffusion cycle sixty years earlier. Now the product became identified as an icon of affluence, power, and success. As Allen (1987a, p. 10) writes, "In the 1970's cocaine hydrochloride, the white powder form of cocaine... became a symbol of affluence and glamour. Increasingly a main attraction at swinging parties, it was mentioned in films and used by intellectuals and professionals. In keeping with the ambition of the culture to be cool, confident and successful, cocaine euphoria seductively and temporarily provided these feelings."

In this second diffusion cycle, cocaine was viewed not as a medical tonic, but rather as a status symbol and as a vehicle to self-perceptions that the consumer was, indeed, powerful and successful. Cocaine was "the champagne of drugs" (Erickson *et al.*, 1987). Its use was associated with numerous motion picture celebrities (e.g., Richard Dreyfus, John Belushi, Richard Pryor, Chevy Chase), rock and roll musicians (e.g., Ringo Starr, Mick Jagger, Keith Richards), and sports figures (e.g. 'Hollywood'

Henderson, Lawrence Taylor, Daryl Strawberry). It was enshrined in films and popular music:

"When your day is done and you want a run,
Cocaine,
When you got bad news you want to kick the
blues, Cocaine.
She's alright, she's alright, Cocaine.
If your thing is gone and you want to ride on,
Cocaine.
Don't forget this fact, you'll get it back,
Cocaine.
She don't lie, she don't lie, she don't lie,
Cocaine."

Writer J. J. Cale
(c) 1975 by Audigram Music

Not only did cocaine have different social-symbolic qualities during its second diffusion in the United States, it was consumed via a different modality -- i.e., 'snorting' versus drinking. Consuming cocaine in this modality also required a different set of surrounding rituals. While imbibing cocaine as a beverage at the turn of the century had generally been a solitary activity, inhaling the drug generally occurred in the context of a leisure social setting (e.g., a party, date, discotheque) and often served as a precursor to sexual intercourse (Erickson *et al.*, 1987). Cocaine had become a *recreational* drug, facilitating group congeniality and accompanied by rituals of gift-giving and sharing (Anderson 1981; Murray 1984). Hosts were expected to provide cocaine 'lines' for their guests, much as they provided wine, beer, or liquor (Murray 1984). Hence, cocaine in the 1970's was a markedly different innovation than in 1906, both symbolically and technologically (Hirschman 1981).

Diffusion as a Media Phenomenon

In its second diffusion cycle, cocaine became more than just a novel product, it also became a media phenomenon; its spread through the population was documented by its spread through the mass media. In the 1970's, cocaine came to national prominence not just as a drug, but as a *concept*, a topic of public interest. A comparison of the number of cocaine-related magazine articles published in the United States from 1969 to 1988 (compiled from the *Reader's Guide to Periodical Literature*)⁵ with the actual and estimated usage data for cocaine from the President's Commission on Organized Crime (1986, p. 18) for the period 1976-1984 shows that the actual usage of cocaine by consumers closely mirrors documentation of cocaine in the popular media; a pattern that has also been found for marijuana and heroin (Beniger 1983).

Cocaine consumption more than doubled from 1977 to 1979, when the peak of the second diffusion cycle was reached. Also in 1979, public attitudes toward cocaine had begun to shift dramatically as a result of mass media stories on its destructive effects

⁵For additional analyses of the *Reader's Guide Index* for tracking drug diffusion, see Beniger (1983) and Erickson *et al.* (1987).

and governmental efforts to demarket the drug (Erickson *et al.*, 1987). As a result, cocaine came to be perceived as a social and personal liability rather than an asset (Blumer 1971; Gusfeld 1967). De-adoption began to occur by 1980, just as had occurred seventy years earlier.

The Supply-Side Responds

However, there was a significant difference between the marketplaces for cocaine in 1979 and 1909, a difference which would permit the drug to reassert itself in an even more potent incarnation in only three years -- the *marketers* of cocaine. Seventy years earlier, cocaine use had been curtailed simply and effectively by cutting off the *legal* sources of supply (Erickson *et al.* 1987). No black market was present and demand was decreasing, so commercial producers simply dropped cocaine products from their inventories and turned their attention to other, more lucrative products. By 1979, the supply-side nature of the market had changed radically. During the 1970's, cocaine became a cash crop in South America. In Peru, Bolivia, and Colombia where the coca plants are grown and processed, it had become *the* primary export; in Colombia, national income from cocaine exports had grown to exceed even that of coffee (Gugliotta and Leen 1989).

Further, the cocaine production infrastructure now encompassed hundreds of thousands of workers in these three countries alone -- from rural peasants who grew, harvested and dried the leaves, to chemists and industrial workers who processed the leaves through various stages of manufacturing (Gugliotta and Leen 1989). Further, extensive distribution networks had been established to transport the finished product from Colombia to a variety of U.S. destinations over air, sea, and land routes (Gugliotta and Leen 1989; President's Commission on Organized Crime 1986). The product was enormously profitable for all concerned, providing an estimated \$1 billion profit for the Colombian cartel controlling it in 1979 (Gugliotta and Leen 1989; President's Commission on Organized Crime 1986). Such a marketing apparatus does not die easily -- *it innovates*.

The Colombian Cocaine Cartel

According to the President's Commission on Organized Crime (1986), the Colombian cartel began as a loose confederation of drug processors and smugglers centered in Medellín, Colombia.⁶ During the late 1960's, the cartel used Cubans living in Miami to 'retail' their shipments of cocaine powder to U.S. consumers. Realizing there were vastly more profits to be made in direct marketing their product, the Colombians eliminated (literally) their Cuban middlemen and by 1978 had gained complete control of the U.S. cocaine market (PCOC 1986). They had also evolved a sophisticated transportation network

encompassing land, air, and sea routes. Logistical support along these routes came from a variety of sources including the corruption of transshipment country politicians and American pilots willing to fly contraband loads of cocaine into clandestine air strips in rural Louisiana, Georgia, Texas, and Florida (Gugliotta and Leen 1989; PCOC 1986).

By the early 1980's cocaine production and distribution by the Colombian cartel had grown so efficient that the retail price of the product began dropping -- from \$50,000 per kilo (2.2 lbs) in 1980 to \$14,000 by 1983 (Gugliotta and Leen 1989). The drop in market price began to put downward pressure on the industry's profits and management began investigating other cocaine-based products that would enhance profitability. The answer to their dilemma was generated through a novel use of cocaine powder by current adopters. This novel product usage was *freebasing* (U.S. Department of Health and Human Services, 1987, p. 143). Freebasing had a product advantage over cocaine hydrochloride powder in that the cocaine was absorbed more rapidly, producing a more intense and longer lasting euphoric effect on the consumer.

However, it also had a serious product disadvantage. Ether or another combustible solvent was required to release the cocaine alkaloid from the base. In the process of heating this mixture, serious accidents could occur (recall the severe burns suffered by free-base consumer Richard Pryor). However, from the cartel's perspective, the free-basing innovation was a highly desirable one. The freebasing 'high' effect was a much more intense one than that generated by cocaine hydrochloride powder. Consumers who adopted the freebasing practice demanded much larger amounts of the product.

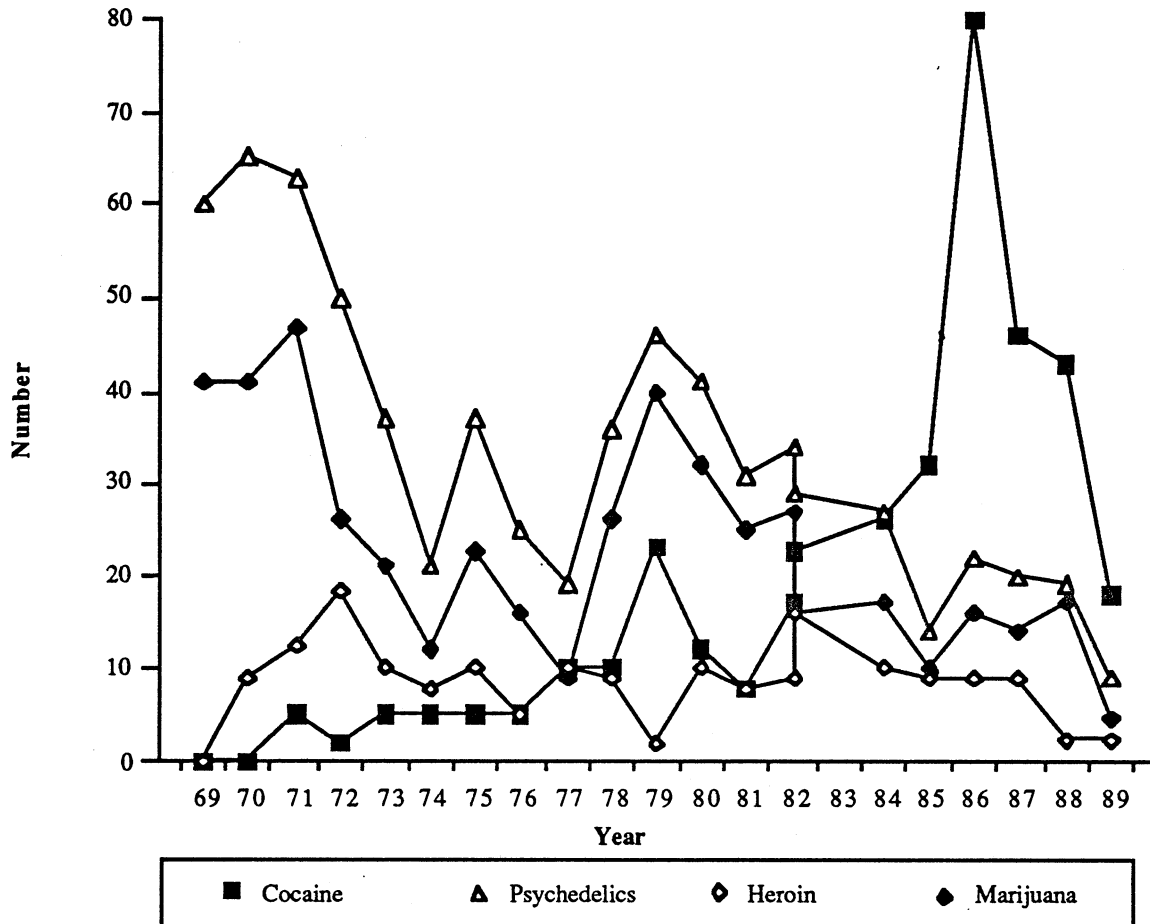
CRACK COCAINE: THE THIRD WAVE

To overcome the product disadvantages of freebasing, cocaine dealers in the United States (and other countries, e.g., the Bahamas, Allen 1987), made two significant production decisions. First, they began transforming cocaine hydrochloride powder into a more safely smokable product, which they named "crack" or "rock." Second, they began pre-packaging crack cocaine in small amounts that could be purchased for \$5 to \$20, i.e., they made the product innovation more 'divisible' (Rogers 1983) and, hence, more easily adopted via a policy of penetration pricing. Thus, the introduction of the crack form of cocaine was based upon sound marketing strategy by cocaine powder producers and dealers; they effectively transformed their product from one consumed by a small segment of elite adopters to one desired -- and financially obtainable -- by the mass market. As Cohen (1987, p. 28) writes, "What the ready-to-wear industry did to tailoring and fast foods did to cooking, crack did to freebasing. The strategy is one of low cost, high volume operations."

Also similar to fast food marketing was the innovative form of retail outlet from which this new cocaine product was sold: crack houses. Crack houses typically are run-down or abandoned buildings in poor neighborhoods. (Williams 1989). Dealers operating

⁶By 1990, many of the managers of the Medellín cartel had been killed or imprisoned. Colombian cocaine production and distribution is now organized in Cali (Shannon 1991).

FIGURE 1
Number of Drug Articles in The Reader's Guide, 1969-1989



crack houses offer their product at low prices and provide fast service and excellent quality. They offer extended business hours, as well, most commonly what is termed a "24/7" selling period (i.e., 24 hours a day; seven days a week). In order to rapidly build a loyal customer base, crack house retailers will generally sell first-time triers \$40 worth of crack for only \$20 the first few weeks. Once consumer loyalty has been generated (i.e., the adopter has become addicted), the price is increased to 'full-cost' level. Customer complaints are few and in case of the rare police raid, the retailers are well-prepared; one crack house dealer told Williams (1989, p. 53), "We have nine millimeters (i.e., automatic rifles) and a machete. We have two bodyguards." The decentralized, multiple outlet nature of crack retailing makes legal proscription of the product extremely difficult; if one crack house is "busted," another (or more) will soon open in the same vicinity to service the pre-existing (and utterly loyal) customer base (U.S. Department of Health and Human Services, 1987).

Diffusion in the Media

Media attention began to accrue to this novel form of cocaine in 1984 and 1985. Crack cocaine was a cover story in both *Time* and *Newsweek* in February 1985 (Gugliotta and Leen 1989). Although the media for a time confused this novel product with its predecessor, freebase cocaine, national attention became intently focused upon the powerful effects of this form of the drug upon the death of Georgetown University basketball player, Len Bias, in 1986.

The pattern of crack diffusion as a popular culture concept is depicted in Figure One, which is based upon the number of articles on cocaine in the *Reader's Guide to Periodical Literature*. The data in the figure illustrate that the third (crack) diffusion of cocaine has vastly surpassed that of the second (powder), which peaked in 1979. It also indicates that the social-symbolic impact of crack cocaine has surpassed that of marijuana and heroin and is now equal to that of LSD/psychedelic drugs, the primary iconic drugs of the 1960's hippie culture. By 1988, at least six million Americans consumed crack cocaine regularly; further, on average three users died every day

(Gugliotta and Leen 1989). These statistics help to communicate the *breadth* of the diffusion of cocaine in its third wave through the United States, but they do little to reveal the *depth* of consumer adoption -- a matter to which we now turn.

ADOPTING CRACK: THE ULTIMATE PRODUCT LOYALTY

Crack is consumed by igniting small cocaine-base 'rocks' with a cigarette ash and then inhaling the vapors through a water pipe. Eighty percent pure cocaine vapor reaches the brain in eight seconds, causing a feeling of intense euphoria unlike any the user has likely experienced before. "The resultant euphoria is extreme, much like that produced by direct electrical stimulation of the reward centers of the brain... On subsequent highs, users describe being able to 'see' the first high, but being unable to reach it" (Allen 1987b, p. 17).

Intensely desiring to reach their prior state of euphoria and being burdened with increasingly dysphoric, depressive moods when the drug wears off, crack users often become unable to control their seeking and consumption of the drug. "Compulsive use, despite disastrous effects on the user's social and physical well-being, is common" (U.S. Department of Health and Human Services, 1987, pp. 144-145).

Psychological Effects of Crack Cocaine

As a product innovation, crack cocaine possesses both positive and negative features for its adopters. It is the unique nature of this drug that only the *positive* attributes are experienced at the beginning of the adoption process. Among these are (1) intense euphoria, (2) increased energy, (3) enhanced mental alertness, (4) feelings of mastery and competence, (5) increased sociability, (6) decreased hunger and fatigue, (7) indifference to pain, and (8) heightened sexuality (Beaubrun 1987, p. 171).

These characteristics prove so powerfully reinforcing that many trial adopters will be unable to discontinue product use, despite the severe negative consequences which result from continued use. Among the most destructive of these negative effects is a chronic syndrome termed *cocaine psychosis*, which includes these symptoms: (1) anxiety, dysphoria, and suspiciousness, (2) insomnia, (3) hallucinations, (4) paranoid delusions, (5) violent, bizarre behavior, and (6) homicide (Beaubrun 1987, p. 171). Chronic use of the product may lead to death (Beaubrun 1987, p. 171). Despite these negative consequences, adopters continue to use the drug in an effort to resume their previous euphoric state and to escape withdrawal. Withdrawal symptoms include depression, anhedonia, drug craving, tremors and muscle pain, eating and sleep disturbances, and EEG irregularities (Department of Health and Human Services 1987, p. 146). Thus, the physical agony of abandoning the product provides sufficient motivation for many users to continue its consumption, despite the resulting physical disintegration or even death.

Social Effects of Crack Cocaine

The initial social effects of crack follow the same positive patterns as for its psychological effects; consumers typically feel more sociable and gregarious. They experience more intense sexual arousal and feel more sexual attraction to others. However, continued use of the product transforms these benefits into ironic parody. Social gregariousness disintegrates into the desperate use of others to obtain the drug, and sexual arousal transmutes into promiscuity and depravity. Crack consumption may have catastrophic consequences on the adopter's family, as well. Adopters may manipulate and steal from family members and close friends to obtain more of the product. Crack use also is associated with increased family violence, child abuse, and child neglect (Allen 1987b). Ultimately, crack consumption destroys not only the welfare of the user and his/her family and friends, but may lead to an overall increase in community crime and violence. Hence, the negative social effects of this innovation radiate outward from the adopter to the surrounding society.

SOME IDEAS FOR DISCONTINUING COCAINE ADOPTION

Cocaine is one of the most complex and long-lived product innovations ever investigated in a consumer behavior context. Its complexity derives from the myriad of personal, social, and historic factors surrounding its adoption and use. Merely acting to interdict supply or arresting and criminally prosecuting consumers will not eliminate its diffusion (President's Commission on Organized Crime 1986). Supply -- in the face of decreased demand -- is likely to continue to innovate novel product forms which will be demanded. Demand -- in the face of lessened supply -- will likely raise the potential profitability of cocaine production, drawing more dealers into the market. In the present author's view, the only viable solution lies in deactivating both the supply and demand sides of the cocaine market concurrently.

Some clues as to how this may be accomplished are provided by considering the origins of cocaine and its two earlier diffusion patterns in the United States (i.e., 1909, 1979). Cocaine is an integral part of social, political, and economic life in the three primary countries which produce it -- Colombia, Peru, and Bolivia. It is extremely doubtful that a product whose cultivation and use extends back 5,000 years can be eradicated. It is also questionable that the eradication of cocaine in these countries would be a moral or ethical objective for the United States, even if it were politically feasible (which it currently is not). Cocaine is the primary cash crop of the majority of indigent peoples in the Andes (Walker 1981). It is a useful and virtually costless folk remedy for many ailments for which their government is not, and likely cannot, provide adequate professional medical care (Walker 1981). The use of cocaine -- in the product form of chewing coca leaves -- permits many to alleviate the impoverishment and fatigue of their daily lives, with no apparent negative consequences on their health or social life (Walker 1981); for these

consumers and in this product form, cocaine must be considered a positive innovation.⁷

In this regard, it is rather damning to note that neither the United States nor the governments of Colombia, Peru or Bolivia, despite their extensive and expensive efforts at interdicting cocaine supplies, have attempted to operate on its root source -- the poverty of the Andean Indians. Until crop substitution programs are successfully implemented and Indians are more fully integrated into the economic, social, and political culture of these countries, there is little likelihood that coca production will cease. Indeed, as Gugliotta and Leen (1989) report, poverty and social inequality are two of the primary forces undergirding the creation and continuing power of the Colombian cartel. Cartel members are not drawn from the educated, affluent classes, but rather emerge from the hard and violent slums endemic to South American cities. Although no one would condone the brutal methods and destructive activities of the cartel, two facts must be recognized if progress is ever to be made toward eradicating its influence.

First, cartel members are not merely criminals and thugs. To label them as such severely limits our view of how to reduce their power. They are *also* highly sophisticated, intelligent, and self-taught international businessmen (see Shannon 1991). Their ability to construct elaborate transnational marketing channels, transfer billions of dollars in foreign currencies, and maintain organizational coherence *despite* a multinational police effort to destroy their business must be recognized. Much like the American mafia, such organizations are generated because persons with great entrepreneurial drive are prevented from entering socially acceptable and legal forms of enterprise. Since the socioeconomic conditions which gave rise to the present cohort of cartel members are still very much in effect (i.e., poverty, socioeconomic disparity, unmanageable inflation and debt), it is probable that killing or capturing the current cartel leadership will not eliminate the cartel; it will only permit new leadership to emerge -- much as in American organized crime. (Indeed, this is exactly what has happened; the elimination of the Medellín cartel has given birth to the Cali cartel (Shannon 1991).

⁷Although some readers may be disturbed by my present advocacy of the consumption of a stimulant, they may wish to consider the current widespread acceptance of such practices in North America. Many, perhaps all, readers imbibe coffee, tea or cola beverages regularly, all of which contain the powerful (and physically addictive) stimulant, caffeine. Several readers also, no doubt, enjoy alcoholic beverages on occasion. Others may smoke cigarettes or marijuana. Thus, what to us appears to be an objectionable vice, i.e., chewing coca leaves, is no different in function from our own society's accepted drug consumption practices -- it is simply unfamiliar.

Analogously, we find the same conditions existing for both suppliers and consumers in the United States (Morgenthau 1989d). Williams (1989, p. 8) describes the entrepreneur-dealers he encountered in New York City: "At the retail level, the distribution and sale of cocaine involves mostly African-American and Latino boys and girls under eighteen. In general they come from families whose income is below the poverty line, and from neighborhoods where there is little chance to rise above that line. It is difficult to say how many young people are engaged in this trade, but certainly there are many thousands in the metropolitan area... Many teenagers are drawn... simply because they want jobs... [Thus], the drug business is a safety net of sorts, a place where it is always possible to make a few dollars..."

It is easy with a product as socially threatening as cocaine to reach for easy and fast solutions, such as arresting and imprisoning the teenage dealers described by Williams (1989). But, just as with the Colombian cartel, such actions are not likely to eliminate the rush of others to fill their positions. The United States, just as Colombia, Peru and Bolivia, suffers from poverty and social inequality. So long as these conditions exist, there will probably be many eager applicants for vacant jobs in the cocaine trade.

There will also be eager consumers, as well. "If all you have in life is bad choices, crack may not be the most unpleasant of them," stated a U.S. congressman, recently (Morley 1989, p. 13). Although crack adoption is now diffusing to all socioeconomic strata (PCOC 1986), its original customer base and continuing consumption stronghold is among minority members of the underclass (Cole 1989). Although many affluent cocaine consumers continue to use the powder form of the product (i.e., cocaine hydrochloride), because of its more elite image and less ominous reputation (Cole 1989), an increasing number of white collar professionals are now adopting crack, due to its low price and widespread availability (Cole 1989).

As in the first cocaine diffusion in the United States (1889-1909), the association of crack with black and other ethnic minority consumers has promoted strong racist imagery in the mass media and even in governmental documentation. The official report to Congress of the U.S. Department of Health and Human Services (1987, p. 18), for example, stated, "The 8th National Household Survey on Drug Abuse conducted interviews with 8,037 individuals 12 years old and older... The survey differs from its predecessors in that it contains an over-sampling of interviews with blacks and Hispanics, so that more reliable estimates of drug use by these population groups can be obtained."⁸ The racist depiction of crack as evidence of endemic weakness or evidence of moral dysfunction (Raybon 1989) among blacks is reminiscent of the popular culture imagery employed

⁸If the survey had oversampled, say, Republicans, suburban housewives, or corporation executives to better estimate their drug use, no doubt a public outcry would have ensued.

during another recent drug 'epidemic' -- heroin. The July 5, 1971 issue of *Newsweek*, for example, carried a cover story on heroin use and observed with alarm: "Heroin is spreading in epidemic proportions out of the ghetto [and] into white suburbia" (p. 3). As we have argued, to view crack as an innovation that originated 'in the ghetto' and then diffused to white, middle-class America, is not only simplistic, it is fallacious. It is more historically accurate to view cocaine as an affluent product that 'trickled down' to the poor when it was reformulated and repackaged from powder to crack. In essence, from the second to the third cocaine diffusion cycle, it has been affluent white consumers, together with shrewd marketers and retail dealers, who have 'infected' poor, black consumers.

Regardless of whether the rich or the poor are responsible for introducing crack cocaine into U.S. society, it is now here, and effective responses to its growing diffusion must be developed. The approach advocated here is to attack it from an innovation rejection perspective. That is, we must identify what benefits crack appears to offer its potential adopters⁹ and supply alternatives or substitutes capable of providing those same benefits. In the author's discussions with cocaine addiction treatment personnel, I was impressed by a constructive distinction they made between crack users. One category of user is typically poor, uneducated and unemployed. This *Disadvantaged Adopter* category uses crack cocaine as a means of erasing a negative, deficient personal environment and replacing it with one in which the self is seen as powerful, competent and in control of events.

In contrast, is the *Advantaged Adopter* group which is composed of well-educated, upwardly mobile, professional and managerial class consumers who use crack cocaine to help them perform their jobs more effectively and compete more successfully with their peers. For example, one affluent tax accountant became addicted to crack in the early months of 1989 because of career pressures in helping several important clients file their tax statements. For each adopter group, crack offers a different set of benefits and, hence, its adoption can only be avoided by offering a different set of incentives.

Advantaged Adopters. An important disincentive for potential advantaged adopters is to vividly inform them of how much they stand to lose if they begin to consume crack. The high rate of addiction resulting from crack trial needs to be communicated to this group, together with a rendition of the many serious negative personal and social consequences resulting from chronic use. Many professional people may view crack as something they might use to get through a 'tough time' in their careers or to help them cope with an unusually heavy workload. They must be informed in clear and direct fashion that crack adoption is *not* a short-term action -

- it may result in long-term addiction, and the loss of their careers, income, family and, perhaps, life. It is not something to be experimented with even once. At the present time, none of this information is being conveyed to potential advantaged adopters, and they are not even targeted as a high-risk group.

Disadvantaged Adopters. Disadvantaged adopters are presently featured nightly on the evening news, where they tell in disjointed language their legacy of despair and ruin. Standing at the periphery of the camera's range are usually scores of potential disadvantaged adopters. The surrounding landscape is inevitably one of burned-out, boarded-up buildings, junked cars, and small stores with metal bars across the windows. Unemployment runs at 70%, the drop-out rate hovers at 60%, legitimate job opportunities are scarce, and hope is eroded by cynicism (Morgenthau 1989d; Williams 1989). To tell these consumers to "Just say no" to crack appears naive at best, and possibly even patronizing.

For this group of adopters, Morley's (1989, p. 13) dictum may be appropriate: "If all you have in life is bad choices, crack may not be the most unpleasant of them." I am *not* recommending that impoverished, uneducated and unemployed consumers take up crack as a meaningful response to their troubles. But I am calling upon consumer policymakers to recognize the meaninglessness of parading the traditional blandishments against drug consumption, e.g., they're 'bad' for you; they won't solve your problems, in front of such people. The truth which many of us -- members of the educated, affluent elite -- do not wish to recognize when formulating public policy for disadvantaged consumers, is that much of what these people experience every day is 'bad' for them -- being without a job, living in a crime-ridden neighborhood, not having access to adequate housing or medical care. We also fail to acknowledge that although taking a drug like crack 'won't solve their problems,' few other solutions to their problems are readily apparent.

Crack cocaine will not be rejected by this group of potential adopters unless viable substitutes for its use can be found. The answer for this consumer group, then, is the same as that advised earlier for the original adopters of *el coqueo* -- the Andean Indians. For five millennia they have chewed coca leaves, depending on them to provide each generation with the strength to carry on, despite pressing poverty and socioeconomic exclusion. They still await their full and equal incorporation into the surrounding society. So do the disadvantaged American consumers of crack.

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⁹Discussing alternative treatment programs for current adopters is beyond the scope of the present paper, but see Peele (1985), Brister and Brister (1987), and Pittel (1985).

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Further Findings on Self-Gifts: Products, Qualities, and Socioeconomic Correlates

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ABSTRACT

This article reports new quantitative findings on self-gifts from two surveys. The first shows that some product classes (e.g., clothing) are more prevalent as self-gifts in certain contexts (reward versus therapy) and, also, self-gift qualities (e.g., memorable, inexpensive) are differentially associated with self-gift contexts. The second study shows that propensities to engage in self-gift behaviors (e.g., rewarding, cheering up) are correlated with socioeconomic variables such as age, current financial condition, and gender. Results are discussed and future research is suggested.

INTRODUCTION

Understandably, gift-giving theory and research have been primarily dyadic or interpersonal in nature (see, e.g., Belk 1979; Fischer and Arnold 1990; Sherry 1983). A few researchers have noted, nonetheless, that people may sometimes give gifts to themselves (see, e.g., Schwartz 1967; Levy 1982; Mick 1986). Empirical evidence has now begun to appear that not only substantiates self-gifts, but also suggests that the self-gift phenomenon may be widely occurring in American society (Mick and DeMoss 1990a, 1990b; Mick et al. 1991; Sherry and McGrath 1989).

Mick and DeMoss (1990b) define self-gifts as personally symbolic self-communication through special indulgences that tend to be premeditated and highly context bound. Typical of the self-directed messages are celebration, congratulations, or consolation; all are intertwined with self-concepts (how consumers define themselves) or self-esteem (how consumers feel about themselves). Often cited contexts include public holidays (e.g., Christmas) and birthdays as well as situations of success (e.g., graduation, promotion) and failure (e.g., low exam grade, divorce). Mick and DeMoss (1990b) have suggested that self-gifts reflect consumer behavior in some of its most flexible, dramatic, and personally meaningful forms.

Most of the early empirical insights on self-gifts have been qualitative. As Mick and DeMoss (1990b) noted, however, various research approaches will be necessary to understand self-gifts comprehensively, including quantitative inquiries. In this article we report some new quantitative findings on self-gifts emanating from two surveys. The results contribute further foundational knowledge about self-gifts, notably the types of self-gifts acquired (including differences between reward and therapy contexts), the qualities of self-gifts deemed most applicable in four different contexts, and socioeconomic correlates of consumers' propensities to engage in self-gift behavior in eight different contexts. As an additional contribution, moving past beyond the exploratory and descriptive nature of past

self-gift studies, the surveys also allowed us to test several propositions that Mick (1991) derived from a semiotic analysis of self-gifts.

STUDY ONE

Overview

Data from this first study were collected as part of a previous survey on self-gifts (see Mick and DeMoss 1990b for full details). In that project 392 critical incident reports on self-gifts were collected from a convenience sample of students and non-student adults ($n = 287$), ages 21 to 82, mostly from the Gainesville, Florida area. Two-thirds of the respondents were asked to describe a personal acquisition "as a reward for having accomplished a personal goal" and then, on a subsequent page, to describe a personal acquisition "to cheer yourself up because you were feeling down." The other one-third of the respondents were requested to describe a personal acquisition "for your birthday" and then another "when you had extra money to spend." These four contexts had been identified through previous exploratory research, with the first two (hereafter called reward and therapy) potentially representing the two predominant contexts of self-gifts. Further rationale for the four chosen contexts and their disproportionate distribution in the survey are discussed in Mick and DeMoss (1990b).

After completing the critical incident reports, respondents answered two scaled items about premeditation and guilt over each reported self-gift (see Mick and DeMoss 1990b). Then all respondents completed a series of adjective ratings regarding the qualities of self-gifts they perceived to be most applicable to each of the four self-gift contexts addressed in the survey (reward, therapy, birthday, extra money to spend). On each of four separate pages, under the heading of a self-gift context, twenty qualities were listed (e.g., practical, inexpensive). Using a 5-point scale, respondents indicated how much each quality applied to the kind of product, service, or experience acquired in the given context. The adjectives were taken partly from Belk's (1979) prior work on dyadic gift qualities and partly from insights generated during our prior self-gift research.

A few of the qualities related to propositions about self-gifts developed by Mick (1991). He suggested that, compared to self-gifts in the extra money context or the therapy context, self-gifts as rewards or on birthdays (a personal holiday) would more likely be sought for their temporal durability, i.e., to continue physically existing in the person's life or remaining mentally salient. His argument was based on the reasoning that rewards are sought as testaments to effort and achievement, while birthday gifts are usually chosen to befit a very special (once a

TABLE 1
Types of Self-Gifts Reported Across All Four Contexts

Type of Product	Frequency	Percentage
Clothing	72	18%
Fast-Food or Grocery Food	35	9%
Non-Fast-Food Restaurants	33	8%
Music Products	24	6%
Personal Care Services	24	6%
Recreational Products	20	5%
Electronic Equipment	19	5%
Alcohol (carry-out)	17	4%
Travel	15	4%
Jewelry	14	4%
Home Furnishings	14	4%
Entertainment (outside of home)	13	3%
Other Less Frequent Categories & A Miscellaneous Category	92	24%
Totals	392	100%

year) personal occasion. Hence, consumers should desire self-gifts in those contexts that are more likely to last physically or otherwise remain memorable. Mick (1991) also proposed that reward and therapeutic self-gifts represent consumers' attempts to uplift themselves (self-esteem, moods, etc.). Thus, he suggested that, compared to extra money self-gifts or birthday self-gifts, reward and therapeutic self-gifts are more likely to be sought for their perceived inspiring quality.

Analysis

The critical incidents were content analyzed according to the type of product, service, or experience mentioned as the self-gift. This analysis was conducted independently by two doctoral students using a pre-established list of potential types of self-gifts. Coding agreements occurred in 86% of the cases; disagreements were resolved by a third judge.

Of the 392 reports, 134 were rewards, 145 were therapeutic, 39 concerned birthdays, and 74 concerned extra money to spend. Key cross-tabulations were constructed for types of self-gifts in relation to the self-gift contexts. Cross-tabulations involving the birthday and extra money contexts were generally less reliable due to low cell frequencies in light of the lower number of self-gift incidents reported in those contexts. Thus, only the cross-tabulation involving reward and therapy contexts is reported. As suggested by Mick and DeMoss (1990b), these may represent the two predominant contexts for self-gifts.

To determine whether the self-gifts varied according to the 20 qualities (Qs) across the four different self-gift contexts (Cs), a series of analyses were performed. First, the interaction of Qs and Cs was tested and found to be highly significant ($F = 21.8, p < .0001$). Then the simple main effects of the four contexts (Cs) were tested for the 20 qualities and all were statistically significant ($p's < .05$), with the exception of one quality ("simple"). *Post hoc* Tukey

comparisons were then performed on the remaining 19 qualities to test for significant differences between self-gift contexts.

Results

As Table 1 shows, across all four contexts the most frequently cited self-gifts were clothing, fast-food/grocery food, non-fast-food restaurants, music products (e.g., tapes), personal care services (e.g., hair styling), recreational products (e.g., tennis racquet), and electronic equipment (e.g., radio). As Table 2 shows, compared to the therapy context, the reward context was more likely to involve clothing, non-fast-food restaurants, recreational products, and travel, and less likely to involve music products, fast-food/grocery food, personal care services, and entertainment outside the home (e.g., movies).

A few qualities of self-gifts were shared among self-gifts across the four contexts (see Table 3), these qualities being exciting, fun, and satisfying; taken together they substantiate the indulgence and specialness of self-gifts (see Mick and DeMoss 1990b). Several of the qualities varied across the contexts examined. Compared to the other contexts, among the qualities especially applicable to reward self-gifts were inspiring, memorable, and lasting; by comparison, less applicable qualities to this category were unusual and silly. Among the qualities especially applicable to therapy self-gifts were inspiring and relaxing; these self-gifts were less likely to be practical, prestigious, memorable, elegant, perfect, irresistible, or lasting. By comparison, the qualities more applicable to birthday self-gifts were memorable, fashionable, thoughtful, perfect, and lasting; they were less likely to be inexpensive or relaxing. The quality perceived more applicable to the extra money context was inexpensive, with practical and irresistible comparatively higher as well; the less applicable qualities were inspiring, memorable, magical, and warm.

TABLE 2
Types of Self-Gifts Reported in Reward and Therapy Contexts

<u>Product Class</u>	<u>Self-Gift Contexts</u>	
	<u>Reward</u>	<u>Therapy</u>
Clothing	34	18
Non-Fast-Food Restaurants	17	10
Recreational Products	8	2
Travel	10	2
Music Products	4	11
Fast Food/Grocery Food	8	25
Personal Care Services	5	14
Entertainment	3	9

Chi-square = 41.1
df = 7
p < .001

TABLE 3
Mean Ratings of Qualities of Self-Gifts Applicable in Four Contexts

<u>Quality</u>	<u>Reward</u>	<u>Therapy</u>	<u>Birthday</u>	<u>Extra-Money</u>
Practical	3.2 ^d	2.4	2.9 ^d	3.1
Inspiring	3.6	3.4	2.9	2.8
Prestigious	3.3	2.5	3.2	2.9
Unusual	2.8 ^b	2.9	3.1	2.9
Memorable	3.7	3.0	4.1	3.0
Inexpensive	2.7 ^b	2.8 ^d	2.5	2.9
Magical	2.2 ^b	2.3	2.5	2.1 ^a
Relaxing	3.5 ^b	3.6	3.0 ^d	3.1
Fashionable	3.0	2.6	3.5	3.3
Thoughtful	3.4 ^b	3.3 ^d	3.8	3.2
Elegant	2.9 ^d	2.4	3.1	2.8
Exciting	4.0	3.5	4.0	3.7
Silly	2.4 ^d	2.7	2.7	2.6
Perfect	3.3 ^c	2.8	3.5	3.2
Warm	2.9 ^b	3.0	3.2	2.8
Irresistible	3.0 ^b	2.8	3.2	3.2
Fun	4.0	3.7	4.2	4.0
Lasting	3.6	2.9	3.8	3.5
Satisfying	4.5	4.0	4.3	4.3

5-point scale: 1 = Does not apply at all; 5 = Applies very highly

All means in a given row that are not identical are significantly different at $p < .05$, unless noted as follows:

- a = Not different ($p > .05$) from Reward Context, in same row
- b = Not different ($p > .05$) from Therapy Context, in same row
- c = Not different ($p > .05$) from Birthday Context, in same row
- d = Not different ($p > .05$) from Extra-Money Context, in same row

Discussion

The results of study one are insightful, though it must be acknowledged that they are based on a convenience sample. With this limitation in mind, it appears that some types of self-gifts are more prevalent overall, though there is obviously considerable variety in self-gift selections since nearly one out of every four fell outside of the main prespecified categories appearing in Table 1. Also, some types of self-gifts are more likely to be acquired depending on the specific self-gift situation. When consumers are rewarding themselves (as opposed to cheering themselves up) they are more inclined toward clothing, non-fast-food restaurants, travel, and recreational products; whereas when they are cheering themselves up, they are more likely to select fast food/grocery food, personal care services, music products, or outside entertainment (Table 2). These findings make some intuitive sense and align with prior insights on self-gifts. That is, in reward contexts consumers are probably more likely to feel they *deserve* something special due to an achievement (Mick and DeMoss 1990b), thus they favor self-gifts like travel or pleasant full-service restaurants. On the other hand, in therapy contexts consumers are more likely to be seeking expedient relief or escape from life's problems (Mick and DeMoss 1990b); thus, these self-gifts are often just temporary diversions such as fast food restaurants and out-of-home entertainment.

Several of the results about qualities of self-gifts lend support to Mick's (1991) propositions about temporal durability and inspiration in self-gifts. For example, as he suggested, reward self-gifts are apparently more likely to be selected for their ability to inspire the individual, perhaps toward further achievement behavior. They are also more likely to be selected for their memorable and lasting qualities, as Mick also suggested, probably to serve as a reminder of the past accomplishment or victory. As he also proposed, therapy self-gifts are also sought for their inspiring quality, perhaps to restore one's sense of self-worth, but they are not as sought for the quality of memorableness or lastingness since the memory related to the self-gift is probably negative. In contrast, birthday self-gifts are not sought as much for their inspiring quality as for their memorability and lastingness, as Mick also suggested.

STUDY TWO

Overview

This study was part of a statewide (Florida) consumer survey that is conducted monthly by the Bureau of Economics and Business Research at the University of Florida. The survey is taken by telephone, with respondents contacted through a probability sampling procedure based on random digit dialing. In essence, we were given the opportunity to include a limited number of self-gift items that could be formatted to a telephone survey method.

One major gap in the understanding of self-gifts concerns which types of consumers are more inclined to engage in varied self-gift behaviors. To

gain some initial insights on this matter, within the constraints of the telephone survey method, we constructed eight separate items on the extent to which consumers are inclined to acquire products, services, or experiences for themselves in specific self-gift contexts. Respondents replied with a number from 0 (Never) to 8 (Very Often). The stem for each item was: "In the past when you have acquired products, services, or experiences for yourself, how often have you felt you acquired them" and this was followed by one of the following eight phrases:

- (1) to reward yourself
- (2) to cheer yourself up
- (3) because it was a holiday
- (4) to relieve stress
- (5) as an incentive to reach a personal goal
- (6) because it was your birthday
- (7) just to be nice to yourself
- (8) because you had extra money to spend

These eight contexts were identified based on focus group discussions and prior qualitative survey research (Mick and DeMoss 1990a, 1990b).

Seven socioeconomic variables (routinely measured by the bureau in its surveys) were highlighted as potential predictors of the propensity to engage in self-gift behavior:

- current financial condition compared to a year ago (worse, same, better)
- education level
- marriage status (currently married or not)
- age
- whether anyone else lives in the same household with the respondent (no/yes)
- income level
- gender

These predictor variables were selected based on prior research or for strictly exploratory purposes. For example, based on Belk's (1988) work, Mick (1991) proposed that older individuals should have lower propensities to engage in all forms of self-gift behavior; in general, older individuals are thought to be less concerned with acquiring new things, as compared to younger to middle age individuals, because they are more focused on their existing memory-laden possessions. Mick also proposed that people with better financial conditions may be more inclined to engage in all forms of self-gift behavior, especially for the genre of self-gifts he termed Romantic (which includes self-gifts just to be nice to oneself and when one has extra money to spend). Also according to Mick, since the expectations and norms for gifts are highly established for holidays (public and private), in those contexts the propensity for self-

TABLE 4
Multiple Regression Analyses

Dependent Variables	Independent Variables							R ²
	CFC	EDU	INC	MAR	ANYELS	AGE	GEN	
Reward	.10 (.02)	ns	ns	ns	-.09 (.08)	-.19 (.001)	ns	.08
Cheer Up	.06 (.12)	ns	ns	ns	-.08 (.12)	-.15 (.003)	.11 (.02)	.06
Holidays	.09 (.04)	-.09 (.12)	ns	ns	ns	-.19 (.001)	ns	.07
Being Nice to Self	.10 (.03)	ns	ns	ns	ns	-.11 (.03)	.18 (.001)	.07
Extra \$ to Spend	.10 (.03)	ns	ns	ns	ns	-.28 (.001)	ns	.10
Birthday	.09 (.04)	ns	ns	ns	ns	-.16 (.003)	ns	.04
Incentive to a Goal	.11 (.02)	ns	ns	ns	ns	-.23 (.001)	-.11 (.03)	.10
Relieve Stress	.05 (.14)	-.11 (.04)	ns	ns	ns	-.24 (.001)	ns	.09

All eight models (F-values) are significant at $p < .05$. All parameter estimates are standardized. T-tests on parameter estimates for current financial condition (CFC), marital status (MAR), whether anyone else lives in the household (ANYELS), and age (AGE) are 1-tailed tests, given the directional nature of the propositions discussed; all other t-tests are 2-tailed. Subsequent p values are in parentheses, except where ns means that $p > .15$.

CFC = Current Financial Condition (worse = 0, same = 1, better = 2)

EDU = Education Level

INC = Income Level

MAR = Marital Status (Currently not married, including single, divorced, or widowed = 0, Currently married = 1)

ANYELS = Whether anyone else lives in the household besides the respondent (no = 0, yes = 1)

AGE = Age

GEN = Gender (male = 0, female = 1)

gifts may be less impacted by current financial condition, i.e., consumers may be more likely on holidays to override any reluctance for self-gifts due to diminished financial conditions. Finally, Mick also proposed that people with less available intimate relationships (e.g., not currently married, living alone) should have higher overall propensities to engage in self-gift behavior (as a replacement for the missing interpersonal gift-giving in their lives), most especially for holiday contexts.

Analysis & Results

Multiple regression analysis was used to determine whether the socioeconomic descriptors were predictive of the propensity to engage in the eight different self-gift behaviors.

Approximately 500 individuals participate in the statewide survey each month, though due to

refusals on certain questions (e.g., income), the sample in our study was 398. Among them, 158 were males and 240 were females, with an average age of 46 (range 19 - 88). Table 4 shows the regression models for each of the eight separate contexts of self-gift behavior and the set of socioeconomic predictor variables.

Results show that the amount of variance explained by each model is low, R^2 s ranging from .04 to .10. These multiple coefficients of determination are probably attenuated by the range restriction resulting from the single item measures; this is an issue over which we did not have complete control since we were limited in the number of dependent variable items we could insert in the survey, and the independent variable measures were established by the survey bureau.

Table 4 shows that age is negatively associated with each self-gift propensity without exception; older individuals in this sample are less inclined to engage in self-gift behavior. Current financial condition is positively related to every self-gift propensity. However, the propensity for self-gifts on holidays (in general) and on birthdays are not more strongly associated with current financial condition, as compared to the other self-gift contexts. In addition, those respondents who were not currently married did not have any higher self-gift propensities, while those who lived alone (no one else in the household) had higher propensities only for reward and therapeutic self-gifts.

The results also indicate that females are more likely to engage in self-gift behavior in therapeutic and nice-to-self contexts, whereas males are more inclined in situations where the self-gift serves as an incentive to reach a goal. Education was negatively related to the propensity for self-gifts on holidays or to relieve stress. Income itself was unrelated to any of the self-gift propensities.

Discussion

The results from study two are provisional due to the fact that the dependent and independent variables were all single-item measures. Quite simply, the reliability of the measures is not known. However, to the extent that the results have some trustworthiness, the probability sampling procedure enhances their generalizability. Still, some will question altogether the appropriateness of using a telephone survey to study self-gifts. However, it is our continuing conviction that a multimethod approach to self-gifts is necessary to comprehend thoroughly the various facets of this phenomenon, particularly for building and testing self-gift theory (cf. Mick and DeMoss 1990b).

The results of study two are informative and partly supportive of Mick's (1991) propositions about consumers' propensities to engage in self-gift behaviors. Older respondents did report lower propensities to engage in self-gift behaviors. However, whether this finding is truly suggestive of an aging-related phenomenon, as implied by Belk (1988), or instead a specific cohort-related outcome (i.e., the older generation at this time may be less indulgent and more ascetic) cannot be resolved by these cross-sectional data. The results also showed that those with better financial conditions are generally more likely to engage in all self-gift behaviors, as Mick (1991) predicted, though this relationship was not strongest for public holiday and birthday contexts as he proposed. Given that self-gifts are forms of consumer indulgence that reflect intensive participation in a consumption-oriented and economically stratified American society, the financial condition findings can be interpreted in terms of the exercise of social and consumer power by those currently privileged within the existing socioeconomic structure (cf. Sahlins 1972).

With respect to other results, living alone does seem to predispose consumers to a higher propensity for reward or therapy self-gifts, though not for other

self-gifts, as Mick also suggested. Women reported higher propensities to engage in nice-to-self and therapeutic self-gifts, perhaps because they are more likely to use dyadic gift-giving as a means to express empathy or sympathy for other people (Cheal 1988). Men, on the other hand, are socialized to be more competitive and achievement-oriented, rather than human relations-oriented, and this gender difference seems to emerge in the males' higher propensity to use self-gifts as an incentive to reach a personal goal. Whether these differences will dissipate as women increasingly enter male-dominated arenas (e.g., career paths), and if men adopt more of the traditional women's roles, remains to be seen.

GENERAL DISCUSSION

This article contributes additional knowledge about self-gifts by reporting quantitative findings from two large scale surveys. In the first study certain products were seen to be prevalent self-gifts overall, while some were significantly more likely to appear in certain self-gift contexts (e.g., clothing as reward self-gifts, fast food/grocery food as therapeutic self-gifts). Also in study one, qualities of self-gifts were seen to vary depending on the self-gift context (e.g., *inspiring* reward self-gifts, *relaxing* therapeutic self-gifts, *thoughtful* birthday self-gifts). In the second study, the propensities to engage in eight self-gift behaviors were seen to vary negatively with age and positively with current financial condition. In a subset of contexts these propensities were also correlated with gender, education level, and whether the person was living alone. Taken as a whole, these findings tell us more about (1) which types of self-gifts are preferred overall, and between two predominant contexts; (2) which qualities are applicable to self-gifts in four major contexts; and (3) which types of consumers (based on socioeconomic criteria) have higher propensities to engage in different self-gift behaviors.

More research is needed on the types and qualities of self-gifts in such contexts as public holidays (e.g., Christmas, Valentine's Day), when relieving stress, when establishing an incentive to reach a goal, and when just doing something nice for oneself. Basic research is also needed to compare types and qualities of self-gifts with those of dyadic gifts in similar situations (e.g., birthdays, rewards, therapy) and with dyadic gifts differentiated by the relationship of receiver to donor (e.g., whether the receiver is part of the donor's extended self; see Belk 1988). Also, other individual differences besides socioeconomic factors could be considered for their ability to predict propensities for self-gift behaviors (e.g., personality traits such as need for achievement or self-esteem).

Self-gifts have been a relatively little understood phenomenon within consumer behavior, though their manifestations in everyday American life seem widespread. Using multiple methods while developing and testing both a priori and emergent propositions seems a fruitful strategy for ascertaining this phenomenon. Although a detailed understanding and general theory of self-gifts remain yet at a

considerable distance, some first steps have been taken in that direction.

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Symbolic Communication Among Consumers in Self-Consumption and Gift Giving: A Semiotic Approach

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Using Leach's (1976) communication framework, this paper explores how products symbolically communicate in different consumption contexts. It examines the non-verbal role products play when consumers communicate through purchase and consumption, to clarify the symbolic differences between products like clothing when used for personal and visible consumption and products like silverware used for gifts. It examines how expressive consumption communicate symbolic meanings and makes two key points: first, consumers use different types of symbolic communication in different contexts; and second, an analysis focusing on communication instead on objects leads to a richer understanding of consumer behavior.

Consumers use products to seek distinction, self-definition, identity extension; and communicate these to others (Belk 1988, 1990). Objects have being or movement in human society only by the significance men give them (Sahlins (1976). Consumer behavior would be difficult to fathom without understanding the meanings consumers attach to possessions (Belk 1988). This centrality of product symbolism in consumer behavior was first recognized by Levy (1959) and Grubb and Grathwohl (1967) and has been extended by Levy (1981) and McCracken (1986, 1988) on consumption anthropology; Hirschman (1985) on ethnic consumption; Holbrook (1986) on consumption of aesthetics; Belk, Bahn and Mayer (1982) and Belk, Mayer and Driscoll (1984) on symbolic decoding; Belk (1979, 1981) and Sherry (1983) on gift giving; Holbrook (1985), Holman (1983), and Mick (1986) on the semiotics of consumer behavior.

While, this literature has made major contributions, some important and unexplored areas remain to be investigated. It has mainly examined a consumer's relations with the objects of purchase (Belk 1990). The symbolic role of products in mediating relations among consumers as yet, remains an unexplored area. The mechanics of product based communication also remains unexplored. Leach (1976) maintains that cultural artifacts function as a nonverbal language system, with the important distinction between artifacts that work as *signs* and those that work as *symbols*. This terminology differs considerably from that of Charles Pierce. For a comparison see Barthes (1983 a).

Signs communicate by making reference to a shared code (Leach 1976). A code affords a general set of possibilities for sending particular messages (Douglas 1972). In a sign a part refers to a whole, to which it belongs -- like a cross for Christianity, or a crown for royalty. This part/whole mechanism of sign includes two relations: metonymy and synecdoche. Metonymy juxtaposes contiguous terms that occupy a distinct and separate place within a single semantic or perceptual domain. "You will read in Homer," the

agent (Homer) replaces the act (Iliad) (Sapir 1977). Synecdoche draws its terms from a single domain but one term always includes the other. The presence of a term refers to the absent whole as in crown (part)/royalty (whole).

Symbols on the other hand, communicate metaphorically to explain complicated ideas or emotions. Metaphors equate terms from different domains (Sapir 1977) like, "Put a tiger in your tank." Metaphors are meaningful only in particular contexts because equivalence can work only on the presumption of shared knowledge of one domain of experience to explain something quite different. Communication occurs through analogies and parallels.

The paper first defines *signs* and *symbols*, and discusses four categories of communication -- *self-consumption* as a *sign* or *symbol*; and *gift* as a *sign* or *symbol*. *Self-consumption* as a *sign*, is illustrated by the example of the clothing system; and gift-giving as a *symbol* is illustrated by consumer self-reports. The two remaining categories-- *Self-consumption*, as a *self-gift* and obligatory or unauthentic gift as a *sign*, are briefly discussed. The final section summarizes the contributions of the paper.

DISTINCTIONS BETWEEN SIGNS AND SYMBOLS

A culture is a complex of significations created by non-verbal sign systems (Leach 1976). People give meaning to things by using them. When artifacts are patterned in sets of coded information, products in use become elements of a non-verbal, symbolic language. Understanding such a language requires knowledge of its constituent elements and its grammar which organizes the elements in a coherent system of meaning producing structures; and accordingly, the information coded in styles of clothes, architecture, and automobiles are similar to coding implicit in sounds, words, and sentences with the important difference that the syntax of non-verbal language is simpler than that of natural language. Unlike the more dynamic natural languages, non-verbal communication tends to be customary and conventional (Leach 1976 p.11).

Leach (1976) uses a simple communication model consisting of a sender and a receiver. A sender sends a message bearing entity to a receiver who in receiving the entity, interprets the message. Thus Leach separates the message bearing entity (A) from the message (B), the entity carries. A is the "signifier" and B is the "signified." This act of separation is called opposition. The relationship between A and B is represented as A/B and is called a "structure." The relationship between an entity and the meaning it carries is represented by the equivalence model: Signifier/Signified :: A/B. A is the signifier and B is the signified. A product can function either as a sign or as a symbol. Signs and

symbols are produced when the message bearing entity A through cultural or causal associations stands for a message B.

SIGNS

In a *sign* the A/B correlations are cultural such that A (the signifier) stands for B (the signified) as a part stands for a whole. The receiver infers the whole B by observing the part A. A crown is a sign of royalty because in our minds it is a part of a royal costume. Only an arbitrary convention can explain this inclusion. There is no natural necessity for a crown to be a part of royal regalia. The repetition fixes the associative relationship between objects like a "crown" and a message like "belonging to royalty." This strong association causes royalty to be evoked by the mere observation of a crown.

The part/whole relationship is always contextual. In London a man's striped tie may suggest affiliation with a prestigious public school like Harrow or Eaton or the man's regiment. By implication, the tie may also indicate his standing in the British class system. But in the United States striped ties may have no such meaning. In Boston however, a Harvard tie would perform a similar social function, making signs context specific.

A sign is always a member of a set of contrasted signs. For instance, to infer from a school tie a person's wealth and status requires the tie to be observed along with clothes, car, accent and so on. This characteristic of signs is metonymic where contiguity of other signs helps the observer to interpret the message. A married Hindu woman puts a red dot on her forehead, wears red and green bangles on her hands, and wears a string of black and gold beads. The presence of all these signs testify to her married householder status in Hindu society. The absence of the dot alone on a woman's forehead may indicate she is a non-Hindu, but the absence of all other signs may suggest an unmarried Hindu woman. The absence of some and presence of the other signs together convey contextually specific messages. Each sign has more or less precise meaning only in relation to the other signs.

SYMBOLS

In a symbol the relationship between the signifier A and the signified B is also culturally and/or causally determined. But instead of a part/whole relationship of a sign, a symbol represents a whole/whole relationship. When A as a signifier is a whole and it stands for B the signified as a whole, then A symbolizes B. A zigzag road sign symbolizes the curvy character of the section of the road ahead. But this interpretation calls for an act of imagination. The interpreter must imagine that A represents B.

Symbolic representations can be of two kinds, "arbitrary" or "planned." Leach uses "arbitrary"/planned opposition to distinguish between different types of symbolization (Leach 1976). Symbols are "arbitrary" when the relation between the symbol and the message is relayed through repeated cultural assertions, as in the choice of an apple to represent temptation, or in the choice of the serpent to represent

evil. Here the symbols are "arbitrary" because there is no inherent relationship between the symbol and the message. The correlation is learned through repetition. Symbols are of "planned" similarity when some salient attribute of the message resembles the chosen symbol or its attribute as in the zig-zag road sign. Here the choice of symbol is planned to be similar to the intended message.

Leach (1976) further categorizes these two types of symbols as standard symbols, which most people in the culture understand, and nonce or private symbols which cannot generally be understood by most people. Symbols either become standard symbols by public discourse, as in the case of the frequently advertised Merrill-Lynch corporate symbol, or remain private as in poetry and can be understood through a deliberate contextual effort.

A TYPOLOGY OF EXPRESSIVE COMMUNICATION

A typology of expressive communication is organized as a two dimensional matrix shown in Figure 1.

The first dimension dichotomizes the context: self or the other. A product can be expressively used either for the self or for a significant other. The second dimension contrasts the expressive function of the product: the product can function as a sign or as a symbol. This results in four categories of communication: self-consumption as a sign in quadrant A; gift to others as a metaphoric symbol in quadrant B; self-gift where a person gives gifts to one's self which functions as a symbol in quadrant C; and obligatory gift giving where the gift to the other functions as a sign in quadrant D.

Self-consumption as sign (A) and gift to others as symbol (B) occur most frequently. These two types of communication, along the left-to-right diagonal are discussed first in greater detail. This is followed by the discussion of communication in (C) and (D) along the right-to left diagonal. These occur less frequently and are derivatives of (A) and (B); and their discussion is less exhaustive.

COMMUNICATION IN QUADRANTS A & B

The role of signs in self-consumption is discussed, using Sahlins (1976) work on American clothing as an illustration. The discussion on the role of symbols in gift exchange based on consumer self-reports, follows.

SELF-CONSUMPTION

The tendency to make inferences about others based on their choices of consumption objects is a universal cultural phenomenon. Research on coding and decoding confirms a considerable congruence between images of the self and images of the acquired products and that consumers communicate information about social status, life style, personality, age, sex, type of occasion, education and profession by making visible consumption choices (Belk, Bahn, and Mayer 1982, Holman 1980, 1981a, 1981b). Children, college students, and adults make remarkably

FIGURE 1
Typology of Expressive Communication

		CONTEXT OF PRODUCT USE	
		Self	Other
COMMUNICATION FUNCTION	SIGN	A Expressive Self-Consumption	D Obligatory Gift
	SYMBOL	C Self-Gift	B Authentic Gift

consistent inferences and judgments about status and non-status based on peoples' ownership of houses and cars which improve over time (Belk, Bahn and Mayer 1982, Belk, Mayer and Driscoll 1984).

Taken together, six conclusions emerge from this research on visible consumption or expressive self-consumption, as it is called here: (1) consumers make inferences about themselves and others based on their possession and use of a variety of goods; (2) these products tend to be visibly used; (3) as experience with the use of these goods increases, the ability to make inferences also increases; (4) certain product attributes are more important for symbolic communication than others; (5) a product does not continue to convey the same information forever; and (6) consumers strategically use the fact that products communicate life styles and status. This literature does not answer how consumers attach meanings to things or how they decode such meanings. These gaps are addressed here.

QUADRANT A: SELF-CONSUMPTION AS A SIGN

Clothes convey a variety of messages and illustrate the role of sign in self-consumption. Sahlins' (1976) analysis of the clothing system, based on a master distinction between leisure and work, illustrates how sign based communication occurs. Sahlins (1976) uses the sign characteristics of clothing to reveal the structure of the dress code. It shows how products acquire meanings through the operation of a socially shared code where each type and style of clothing, when worn at different times and occasions, communicate specific things about the people who wear the clothes.

Deconstruction of the American Clothing System

The American clothing system, according to Sahlins (1976, p.179-209), is a complex scheme of semantic production of cultural categories in which women's slacks are evaluated in opposition not only to skirts, dresses and men's pants but also to other slacks on attributes of color, patterns, texture and cut. The outfit as a whole, made by particular arrangement

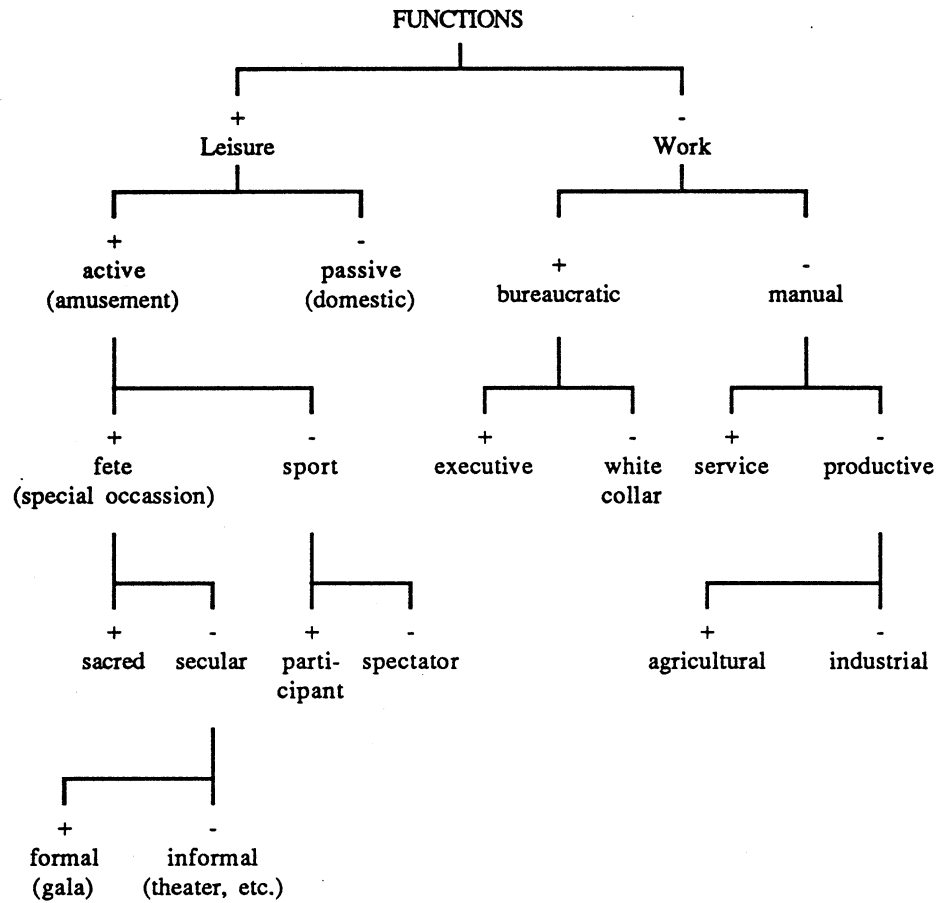
of parts and contrasted to other outfits makes a statement. The differences in clothing for men and women, for day and night wear, for around the house and in public, for adults or children reveal the underlying syntax: categories of time and place signify classes of activities and status to which people are ascribed. These notional coordinates of clothing mark the basic cultural notions of time, place and persons. Order of things correlate to the order of culture. When these correlations get disturbed, events appear as incongruous and out of place, as for example, the incongruity of seeing men in dress suits or women in evening gowns at work. Figure 2 illustrates this deconstruction.

At the top of the tree, the pair of functions, Leisure/Work form the master opposition. At the next level, work is subdivided into bureaucratic work and manual work. Bureaucratic work is further categorized into executive work and white collar work. Manual work is further divided into manual service and productive manual labor. The latter is further bifurcated into agricultural and industrial labor.

Leisure in Figure 2 is classified into active leisure where people go out and seek activities that provide amusement and domestic leisure which has no defined project like staying home and taking it easy. Active leisure is divided into special occasions and sports activity. Special occasions are subdivided into secular and religious occasions. Secular occasions are further subdivided into formal occasions like going to a concert or informal occasions like going to a movie. Sports activity is further categorized into participatory sports or spectator sports.

In Figure 2 the (+) sign represents leisure related activities and is placed on the main left branch and the (-) sign represents work related functions and is placed on the main right branch. At each subsequent level of the tree within each main activity-leisure/work, the left branch is marked and is considered more ceremonial and privileged and the right branch is unmarked and considered more workmanlike and less ceremonial and privileged. Thus beginning with the master opposition of leisure/work, the diagram at each level reveals a series of functional oppositions like active leisure/passive leisure,

FIGURE 2
 Schema of Function Signified in American Clothing



Notes: 1. Adopted from Sahlins (1976)

- | | |
|------------|-------------|
| 2. (+) | (-) |
| marked | unmarked |
| or | or |
| ceremonial | workmanlike |

bureaucratic work/manual work, executive work/clerical work, agricultural work/industrial work and so on. The tree of oppositional pairs thus reflects the logic of clothing differentiations and allows Sahlins (1976) to identify two systematic, observable regularities- one, the rule of ceremonial correspondence and two, the rule of ceremonial exaggeration.

According to the rule of Ceremonial Correspondence, the terms of any oppositions correspond to the terms of any other, such that the ceremonial costumes of any two classes resemble each other by an analogous differentiation from their corresponding non-ceremonial classes. In the-

bureaucratic (+)/manual work (-) and service worker (+)/ productive worker (-) opposition the difference in clothing between say a waiter's uniform (color, style, epaulets) and the factory worker's blue overalls is the same as the difference between that of an executive (pin-striped suit) and the clerk (sports jacket).

The ceremonial clothes of the leisure functions, according to the rule of Ceremonial Exaggeration, will be more marked than those of the workmanlike functions. The uniform for an active sport like skiing has more color and dash than the uniform of a waiter. The clothing for special occasions is more exaggerated than executive suits in the bureaucratic function. The rule suggests that ceremonial

oppositions are exaggerated in the opposite directions. Spectators at a game wear more casual clothes than the clothes industrial workers wear to work. The exaggeration occurs in both directions: more ceremonial at its marked (+) and less workmanlike at its unmarked (-) poles.

The physical contrasts in clothing appear as differentiations reflecting differentiations in classes of time (day/night) and place (home/outside); and relate to classes of activities (leisure/work); and situations (formal/informal) and ascribe persons (male/female, adult/child) to classes of status (high/low). Products reflect the social order to indicate social status, activity and situation, realizing their utilities through the meaning attached to them in consumption. Barthes (1983 a) and Baudrillard (1981) extend these insights to explore how people express individuality, taste and style and how they manipulate the code to their advantage.

A dialect modifies the way some people pronounce vowels without changing the linguistic structure such that the language remains intelligible to all speakers. Barthes' (1983b) model for generating different utterances in clothing fashions consists of a combination of values taken on by an object (O), the object's supports (S) and a variant (V). Thus: a Sweater (O) With An Open (V) Collar (S) can take combinatorial values: the variant (V)- the state of the collar- can assume values (open/closed, high/low) in relation to the support (S)- the collar- or the object (white/color, pattern/plain), giving rise to many possibilities for expressing individuality.

People constantly manipulate the code to their strategic advantage. Business students dress up for job interviews and conform to corporate norms. Teenagers dress down in funky and bizarre outfits to distance themselves from their parents' world (Baudrillard 1981).

GIFT GIVING AND RECEIVING IN CONSUMER BEHAVIOR LITERATURE

Researchers have given gift giving considerable attention (Banks 1979, Belk 1974, 1979, 1982, Clark and Belk 1978, Gronhaug 1972, Heeler, et al. 1979, Pandya 1985, 1987, Ryans 1977, Scammon, Shaw and Bamossy 1981, Shapiro 1970, Sherry 1983). A gift is not a free good and in the anthropological sense it is the basis of a reciprocal system of exchange in a network of households (Mauss 1974, Polanyi 1957, Sahlins 1972). Only this sense of gift is retained here. The meanings of gift as bribery and gift as donation are excluded.

The empirical research on gift purchase describes it as a complex social activity, a form of expressive consumer behavior for communicating feelings, gratitude, emotions and closeness or distance in relationships (Belk 1979, Sherry 1983). Gift selections depend on the giver's ideal self-concept, the nature of the occasion and the relationship to the recipient (Belk 1979) and consume a lot of time in selection. Obligatory gifts on the other hand, tend to be less personal, less time consuming and simpler (Scammon, Shaw and Bamossy 1981). Gifts giving

normally involves at least two people but one can also give gifts to oneself (Levy 1981, Mick 1986).

Consumer involvement in buying products for one's own self (for self-consumption) and in buying gifts for others, differs. Consumers search for more alternatives, shop in more stores, seek more advice and get more information while buying silverware as a gift for others but are more cursory in their search when buying silverware for themselves (Gronhaug 1972, Clark and Belk 1978). For the purchase of small appliances as gifts consumers go to high status stores but spend less time in selecting a gift but while buying for themselves they go to discount stores and spend more time in selecting small appliances (Ryan 1977, Heeler, et al. 1979). Belk (1982), also found that gift situations varied substantially and other factors like expectations attached to gift giving played a confounding role and "Involvement" as a mediating variable could not explain the observed differences.

GIFT GIVING AS COMMUNICATION IN A RECIPROCAL EXCHANGE NETWORK

Gift giving is a form of reciprocal exchange where members of a network are obliged to give and receive gifts (Mauss 1974, Polanyi 1957). The obligation to give or receive gifts is usually implicit (Harris 1978). Gifts are exchanged among friends and relatives and rarely among strangers, and the closer the relationship the less explicit the rules governing the transactions (Sahlins 1972). Gift giving is more than a system of material exchange supplementing or substituting markets or hierarchies. It is also a system of communication (Bourdieu 1979) binding a community and yet allowing individuals and groups to retain independence and maintain individuality (Sahlins 1972).

Gifts are exchanged in a network of households and maintained by a regular flow of gifts (Bourdieu 1979). In urban communities the network consists of both relatives and friends with whom frequent contacts are maintained through gifts of food, hospitality, goods and services to strengthen the bonds of the network. A strong network becomes a system of support and a source of strength and comfort in times of need in an uncertain world. The maintenance of such networks, representing commitments of rights and obligations, requires substantial material and symbolic effort. Time becomes the most precious of gifts because the value of symbolic effort can only be defined with reference to the time spent on the maintenance of alliances (Bourdieu 1979).

Gift functions as a communication symbol precisely because its message is ambiguous (Sahlins 1972). The giver must match intentions and feeling with what receivers would appreciate in a given context. On the other hand, a meaningful gift makes the interpretation of the message imprecise. This ambiguity allows contradictions of economic and social interests to coexist and fuse and allows the expression of individual and social values and prevents their coming into overt conflict. Social and self-interest exist in what Sahlins calls a "diplomatic truce." The ambiguity of the gift exchange makes

allowances for unintended assumptions and permits a retreat from them.

QUADRANT B: GIFTS AS SYMBOLS

In over one hundred self-reports collected for this research, consumers support the contention that products operate symbolically in gift giving, where respondents describe their personal experience with gift giving and receiving. Two typical self-reports illustrate that gifts act as metaphoric symbols. Exchange of Gifts create ambiguity and tension and bring richer interpretations to the relationship. The self-reports illustrate the importance of concepts of time, obligation, ambiguity and the coexistence of economic and social interest.

SELF REPORT 1

"A high school friend whom I had not seen for many years was going to have a baby. When the baby was born I bought a baby ointment with a plant in it as a gift and went to see her. The gift was very inexpensive. I was a little nervous, a little anxious. When I entered the room she was so overjoyed that I almost forgot to give her the gift. She said that it was thoughtful of me to visit her and bring her the gift. Seeing her happy was the best part of the visit. I feel that if you give someone something it is not what you get out of it that matters. You are giving a part of yourself."

The narrator feels tension and anxiety prior to the encounter with the friend because it has been a while since the two have met. People change and forget old friendships. The uncertainty is real. The narrator knows that frequent contacts sustain relationships. But it has not been the case here. Moreover, the encounter is emotionally charged by the birth of the child. The choice of the event is strategic; but the gift is inexpensive. It is quite possible that the narrator's true gift, the gift of time, may not be appreciated. But the anxiety is dispelled by the warmth of the greeting and the friend appreciates the true gift, the visit. The gift now symbolizes this reunion and speaks metaphorically with its own voice as a *nonce* symbol.

Self Report 2

"When I was two my father became an alcoholic, and in the next few years lost his business, became bankrupt and left the house. Our family dropped from a comfortable middle class status to below the poverty line. The year my father left I was told that he had to leave for a while. But as time passed I realized that he was not coming back. Soon December 25th arrived. There were a few packages under our pine tree. As my brothers and I started unpacking the gifts I saw my mother looking very unhappy. The suspense of what was in the package was burning inside me. I wanted to unwrap the package, yet I felt this strong urge to be close to my mother. I ran to her and kissed her. She embraced me and began to

weep. I don't think my mother has ever held me tighter in her arms than on that day in year 1965. Since then our family has progressed. Nevertheless I will never forget that day in my mother's arms. We gave each other something we will never be able to purchase in a store. We gave each other a hug that brought love and security."

The gifts symbolizes the absence of the father, and the need for the mother and daughter to be close to one another. The narrator reciprocates the mother's gift and responds to the mother's need by hugging her, strengthening their bond. The gift now symbolizes the absence of the father and the bond between the two women, and a determination to face the future. The daughter recognizes the mother's sacrifice and pain and accepts the father's permanent absence. The family's need for security and closeness is fulfilled by gift giving. The gift speaks within the context and becomes a *nonce* symbol.

These self-reports substantiate Belk's (1979) findings that gift selections depend on the giver's ideal self-concept, the nature of the occasion and the relationship to the recipient. These considerations make gift giving a more complex choice act than the selection of comparable products for personal consumption. Gifts mediate the relationship between the self and the other in specific contexts. The context makes the giver aware of the need to make an effort to select an appropriate gift to symbolizes the occasion, the relationship and the emotions. It makes the participants anxious and creates feelings of ambiguity. The gift succeeds if the recipient appreciates it. The context provides opportunities for meaningful communication. The interpretation of this communication requires that the gift giver and the receiver both simultaneously and reciprocally interpret the gift through a shared knowledge of circumstances making the gift choice difficult and time consuming.

COMMUNICATIONS IN QUADRANTS C & D

Self-consumption normally functions as a sign. But sometimes it functions as a symbol when we give a gift to ourselves (C). Similarly, gift normally, functions as symbol. But sometimes it can become a sign and refer to a code (D).

QUADRANT C: SELF-GIFT

Normally a gift involves two people: the giver of a gift and its receiver. But sometimes a person can also give a gift to one's own self (Levy 1982; Mick 1986). As symbols of self-dialogue such gifts differ from self-consumption of products. An individual can give a gift to the self as a reward for the accomplishment of a task, to reassure the self, or to assert personhood. Thus what may appear as self-consumption (a sign) indicating social function, position or status, may in fact function as a personal symbol.

In the film "Crimes of the Heart," Diane Keaton, a lonely middle aged single woman, thinks

her family has forgotten her birthday. She gets a cookie for herself, lights a candle on it and sings "Happy Birthday" to herself. She gives herself a birthday party the others forgot to give her. Her gift to herself accentuates her loneliness but also affirms her selfhood. There are many such examples of self-gift in real life like the vacations as a reward after a year of hard work. But when families discuss their vacations with their friends these often become signs of their status, competition and success.

Self-consumption thus communicates in two contexts simultaneously. In one, the dialogue is private, with the self, and has a personal meaning. The self-gift becomes a *nonce* symbol (C), but conspicuous consumption is a sign, a part of the code to be interpreted by others in a fixed way (A).

QUADRANT D: OBLIGATORY GIFT AS A SIGN

Obligatory gifts to others function as signs rather than symbols (Quadrant D). Sending obligatory greeting cards and thank you notes to friends is an example, where the cards act as a reminder of events and the self and become a gesture of social mannerism. Scammon, Shaw and Bamossy (1981) found that flower purchase patterns differed for people buying flowers to fulfill obligations and those buying flowers as spontaneous gifts. The obligatory purchase was less personal and simple. Ryan (1977) and Heeler, et al. (1979), found that obligatory gifts were purchased more quickly than products for self use. A thoughtless gift often leaves one feeling cheated. When people without investing themselves give gifts to meet an obligation, the gift becomes a mere gesture, and acts as a sign of unauthenticity. A respondent echoing this sentiment said: "although I enjoy giving gifts on birthdays and other occasions, I much prefer giving something when it is not expected".

Sometimes people assert their dominance and status through gifts. Such gifts are often resented. The hand-me-downs which rich relatives bestow on their poorer cousins is one such example. Once Richard Lee, an anthropologist while working among the Kalahari bushmen announced his intention to present them with a fat ox on Christmas. His announcement was met with ridicule. They said his gift was a poor and thoughtless choice. At the feast however, the ox was devoured with gusto. Lee perplexed at this behavior asked for an explanation and received this response: "Yes, we knew what the ox was like but when a young man kills much meat (and distributes it to others) he thinks of himself as a chief and (looks at) the rest of us as his inferiors. So we always speak of his meat as worthless...(to) cool his heart and make him gentle." (Harris 1978, p.107-108). Gifts such as these assert dominance in relationships and become gestures of power or prowess and may seek to humiliate the recipient. Such gifts violate the spirit of reciprocity and the norm of equality in close relationships. Eskimos have a proverb: "[Such] gifts make slaves, just as whips make dogs," (Harris 1978).

SUMMARY

Communication in self-consumption is based on a generalized code. A sign activates a set of prior perceptions and attitudes generalized in the code. The character of sign requires that consumers use a set of related products for successful communication. The deterministic character of signs encourages people to manipulate the stereotypes to their strategic advantage. The fixity of the generalized code makes self-consumption easier to interpret.

The gift giver makes gifts unique to communicate the complexity and ambiguity of relationships. Not all gifts are equally complex. The authenticity of the relationship determines the extent of sacrifice of time and money involved in gift giving. Gift communication is harder to interpret. The gift object requires fresh and unique interpretation in each new context. The giver must communicate the investment of time and effort without being explicit. The dynamics of the relationship rather than the fixity of the partners, makes gift giving possible and meaningful.

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Retrieval Inhibition and Related Adaptive Peculiarities of Human Memory

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ABSTRACT

The functional properties of the human as an information-processing device differ in significant ways from the corresponding properties of the standard digital computer. One such important difference is that items in human long-term memory (e.g., names, numbers, facts) differ greatly in accessibility--that is, in the likelihood that they can be retrieved (recalled) when needed. Retrieval of information from long-term memory is erratic, probabilistic, and context dependent in ways that would seem intolerable in the search of a computer's memory.

From one perspective, the unreliable nature of the retrieval of information from human memory seems nothing more than a weakness of the system. From another perspective, however, the retrieval failures we suffer are a by-product of a system that is, overall, adaptive. Given the virtually unlimited storage capacity of human memory, and the relatively slow rate of neural transmission, we do not *want* everything in our long-term memories to be accessible, particularly when that information is irrelevant or out of date (such as where we left the car *yesterday*, or the address where an important business associate *used* to work).

We argue herein that the pattern of accessibility across items in memory changes in dynamic and adaptive ways as a consequence of input (presentation) events, output (recall) events, and shifts in environmental, social, and mood-state cues, and that inhibitory processes (and recovery over time from such inhibition) play a central role in such changes.

INTRODUCTION

In general, we have a poor understanding of how our own memories work. Our assumptions, usually implicit, about how we store (or do not store) and later recall (or do not recall) information are wrong in most important respects. As a consequence, we do not use our memories efficiently, nor do we have appropriate expectations as to what our friends, family members, and co-workers will or will not remember on the basis of our interactions with those individuals. Faulty assumptions about human memory also result in poorly designed instructional programs in educational, industrial and military settings and--in the consumer domain--less than optimal marketing and advertising programs.

It is surprising, from a trial-and-error standpoint, that we do not learn more about the characteristics of our own memories. Our experience would seem to provide each of us with extensive feedback as to the circumstances in which our memories succeed and fail. There are two reasons, in our opinion, why individuals do not gain a good understanding of human memory based on experience alone. First, there is the simple fact that

introspection, as demonstrated across many fields in psychology, is of limited value in learning about ourselves. Second, and of more importance for present purposes, is that people understand the basic characteristics of man-made devices, such as a tape recorder, or the memory in a computer, better than they understand the characteristics of human memory, and they assume, (implicitly) that human memory works in roughly the same fashion. Given that the characteristics of human memory differ in most important respects from the characteristics of such man-made devices, we end up with a seriously flawed mental model of our own memory system.

Among cognitive scientists, there is a growing realization that they, too, like the hypothetical layperson referred to above, may have been misled by an inappropriate analogy between man and machine. For several decades, the information-processing approach to the study of human memory, based on the assumption that the processing of information by humans is roughly analogous to the way programs run on a serial digital computer, dominated research on human memory. (For a good example of such flow-chart models of memory, see Atkinson and Shiffrin 1971; and see Bettman, 1979, for an elegant extension of such models to consumer behavior.) In the last half of the 1980s, however, a variety of empirical and theoretical developments in the behavioral, brain and clinical research domains have convinced cognitive scientists that the basic information-processing architecture in humans differs dramatically from the processing architecture in the typical computer. It is beyond the scope of the present paper to summarize those developments in any detail. A major factor, however, was the emergence of PDP (parallel distributed processing) models based on an analogy to neural networks (see, e.g., McClelland, Rumelhart, and Hinton 1986). In general, it became increasingly apparent that the sequential nature of symbol processing in typical computers limits the extent to which they can simulate the complex cognitive processes characteristic of humans. Theorizing in the human-memory field has entered an era in which a brain metaphor is replacing a computer metaphor.

One consequence of the long-term dominance of the computer metaphor was to bias the types of processes researchers hypothesized within their theories. It was natural to postulate buffers and more permanent storage systems of various types, and to postulate processes such as scanning, sorting, chunking, transferring, and filing. Among the processes it was *not* natural to postulate, are the inhibitory mechanisms that are the focus of this symposium. Across the last several years, researchers in several fields, particularly attention, memory, and language, have begun to argue that inhibitory processes are fundamental to human cognitive processes (see, e.g., Bjork 1989, Hasher and Zacks

1988, and Tipper 1985). It is the goal of the present paper to argue that the inhibition of retrieval access to items in memory, and recovery from such inhibition over time, play an important and adaptive role in the everyday functioning of human memory. Before we pursue that argument further, it is necessary to describe some important characteristics of storage and retrieval processes in human memory.

RETRIEVAL PROCESSES VERSUS STORAGE PROCESSES

Retrieval

A fundamental property of human memory, one that is highly familiar to all of us, is that the retrieval of information from our memories is a fallible process. Names, numbers, and facts that are recallable without apparent effort on one occasion can be impossible to recall on another occasion. There is something erratic and probabilistic about the processes by means of which we attempt to gain access to items of information that, in fact, exist in our memories.

One source of such variation is that retrieval processes are cue-dependent: what we can and cannot recall at a given point in time is strongly influenced by the cues available to us, where such "cues" include not only stimuli bearing an associative relationship to particular items in memory, but also aspects of one's current environmental, emotional, interpersonal or body-state context. As Smith (1988) has pointed out, such contextual cues can be so powerful that we can be virtually a different person in different contexts--at a class reunion, for example, or a place of worship, or attending a little-league baseball game.

It is tempting to consider the fallible nature of retrieval processes as simply a weakness of the human memory system. When viewed in the context of the other characteristics of human memory we summarize below, however, and in terms of the real-world demands on our memories, the retrieval failures that are so typical of human memory are but one reflection of a system that is, overall, adaptive.

Storage

In contrast to the limitations on gaining access to stored information in memory, there appears to be essentially no limit on storage per se. Storing new information in long-term memory appears to be a process of interpretation--of relating the new information to existing knowledge. Items are stored in terms of their meaning, as defined by their semantic relationships to other items. For all practical purposes, there appears to be no limit on how much information can be stored via this process. In fact, rather than thinking of long-term memory as any kind of container, which would imply that there would be less room for new information the greater the amount of information already stored, it is more accurate to think of prior knowledge as creating additional capacity; The more that is already known in a given knowledge domain, the more ways there are to store additional information in that domain.

There is another sense in which the capacity of human memory is essentially unlimited: Once information is successfully embedded within the knowledge network that defines long-term memory, it appears to remain in storage essentially forever. Even the most overlearned and heavily used item of information, such as a prior home phone number or street address one may have had, eventually become non-recallable with a long enough period of disuse, but such forgetting is a matter of loss of retrieval access to such items, not a loss of their representation in memory per se. Such items can typically be recognized at a rate that greatly exceeds chance levels, can be relearned at an accelerated rate, and can often be recalled in special circumstances that reinstate certain cues from the past--all of which constitute evidence that such items have not been lost from memory in any absolute sense.

The storage and retrieval dynamics described thus far illustrate that it is inappropriate to think of memory representations as varying on a unidimensional strength dimension. In a so-called "New Theory of Disuse" Bjork and Bjork (in press) have argued that an item's *storage strength* (how well it has been learned or interrelated with other items in memory) must be distinguished from its *retrieval strength* (how accessible or activated the item's representation is at a given point in time). The retrieval strength of a given item can wax and wane as a function of events involving that item or its competitors.

RETRIEVAL DYNAMICS IN HUMAN MEMORY

Retrieval as a Learning Event

In devices such as a tape recorder and computer memories, retrieving stored items leaves those items in the same state they were in prior to being retrieved. In human memory, on the other hand, the act of retrieval is itself a potent event: The information retrieved becomes more retrievable in the future, and other items bearing certain types of similarity relationships to the retrieved items become less retrievable in the future. The successful retrieval of an item from memory is, in fact, considerably more potent as a learning event than is a presentation of that item for study, and the potency of an act of retrieval increases with how difficult or involved the process of retrieval is (see, e.g., Gardiner, Craik and Bleasdale, 1973, and Landauer and Bjork, 1978).

As certain members of a set of items associated to a given cue are made more accessible--that is, have their retrieval strength increased by virtue of further study or retrieval practice--other items in that set become less recallable. Providing some members of a set of items to be recalled, for example, impairs rather than helps the recall of the remaining. Such "inhibition from part-set cuing" (Nickerson, 1984) has been demonstrated with brand names in product categories (see below) as well as with the members of natural categories and lists learned in the laboratory. Retrieval practice on certain items associated to a given episodic or semantic cue impairs subsequent

recall of other items associated with that cue (see Anderson and Bjork 1990, and Bjork and Geiselman 1978). There is also evidence that the process of recall itself is a "self-limiting process" (Roediger, 1978); that is, in the process of recalling a set of items, the items recalled earlier become more accessible at the expense of yet-to-be-recalled items.

Retrieval Inhibition in the Updating of Memory

In assessing our own memory performance, we tend to think of remembering as good and forgetting as bad. Efficient use of our memories, however, depends, in a sense, as much on efficient forgetting as on efficient remembering. In a variety of different ways, on a range of time scales, we must update our memories. We need to remember our *current* phone number, where we left the car *today*, and how *this* word-processing program works, and so forth; it is not helpful to remember, instead, our old phone number, where we left the car yesterday, and how an old word processor worked. That is, we need some means to erase, set aside, or inhibit out-of-date information.

In man-made memory devices, we typically replace out-of-date information by an over-writing process that is efficient from one perspective (the out-of-date information cannot intrude if it has been obliterated), but is less than optimal from another perspective (what if we happen to need that information again?). In human memory, the primary updating mechanism appears to be retrieval inhibition. As we learn new information to replace old information, retrieval access to the old information becomes inhibited. Because recall of that old information is inhibited, it does not interfere with the recall of the new information, but the old information remains in memory to be recognized or relearned (at an accelerated rate), should that be necessary.

The foregoing characterization of the updating process in humans emerges from research on interference processes carried out decades ago (for a thorough review, see Crowder 1976), and from research on "directed forgetting" carried out more recently (see, e.g. Bjork, 1989, and Geiselman, Bjork and Fishman 1983). The typical procedure in the interference tradition involves having a subject learn a new response (e.g., words) to each of a set of stimuli (e.g., nonsense syllables) after having learned other responses to those stimuli. There is a clear, but implicit, instruction to subjects that they should suppress the original responses once the new learning phase begins. In the directed forgetting paradigm, subjects are typically signalled, at some point in learning a list of items, that they should forget the items they have tried to learn thus far--that these items were the wrong list, or practice list--and that they should memorize the upcoming list instead. In addition to the evidence from such procedures that implicit or explicit instructions to forget inhibit subsequent retrieval access to the to-be-forgotten items, there is also evidence that with time and intervening events there is a recovery of access to those items.

Regression and Recovery

A type of regression effect appears to be fundamental to human memory. When there are alternative or competing memory representations, one constructed more recently than the other, a period of disuse of either representation results in an increase in retrieval access to the earlier representation at the expense of the most recent representation. Thus, having known a woman friend by her maiden name prior to learning her married name, one may get to the point of recalling her married name without apparent competition from her maiden name, but after an extended period of being away from that friend it will tend to be her maiden name, not her married name, that is most recallable. The memory representations underlying motor skills are also subject to such regression. One may have practiced a new and different golf swing, for example, but after a period of not playing it is one's original swing that will be most dominant. The full dynamics of such regression effects are not completely understood. They show up in many types of behavior, in animals as well as humans, and are more pronounced under conditions of stress (for a more thorough discussion of such effects, see Bjork and Bjork, in press). It is also clear that the nature of the situational context cues--and their overlap with the conditions present at the time the earlier or later memory representation were constructed--plays a role. One factor that clearly contributes to memory regression, however, is recovery from retrieval inhibition. As a consequence of constructing and using a newer representation, access to the older representation is inhibited, but with disuse of either representation--and a loss (possibly rapid) of retrieval access to the newer representation--the dominance relationships will change, especially if the older representation was better learned and more highly practiced initially.

ADAPTIVE ASPECTS OF THE SYSTEM

Looked at in isolation, each of the characteristics of human memory discussed above seems unusual or peculiar when compared to the characteristics of man-made recording devices. Taken in combination, however, and viewed in terms of the memory problems the world poses for us, there are some clear adaptive features of such a system.

If we take as a starting point that humans are remarkable as storage devices, and that there are obvious advantages of having virtually unlimited capacity in that domain, the limitations on retrieval access can be viewed as a necessary filter. In the interest of speed, accuracy and avoiding confusion, we do not *want* every item in our memories to be accessible. When asked for our current home phone number, for example, we retrieve that number without entertaining alternatives, even though prior home phone numbers exist in our memories. We could, as certain computer routines might do, retrieve all the numbers with a home phone tag in our memories and then engage a decision process to decide which one is our current number. Such a process would be slower certainly, and more error prone as well.

The fact that retrieval access is heavily cue-dependent, and that retrieving an item makes that item more retrievable in the future, means that, in general, the most accessible items are those we need in our current situation. On the one hand, cues of various types will tend to enhance access to memory representations that are most relevant to the current context. On the other hand, the most accessible items in memory will tend to be those we have been accessing the most in the recent past, which--statistically--will tend to be those we need the most in the near future as well.

The fact that it is retrieval access, not the item's representation in memory per se, that is lost as a function of subsequent learning has adaptive aspects as well. Because the item remains in memory, it will often be recognized and identified as an old item, which can be useful in various ways. Should that old item become pertinent again (the hypothetical woman friend of yours referred to earlier gets divorced, e.g., and returns to her maiden name), regaining full retrieval access to the item is a very rapid process.

Finally, the regression and recovery phenomena referred to above can have adaptive aspects as well. What will it tend to mean if one stops using the more recent of two competing memory representations? Suppose, for example, to pick quite multifaceted memory representations, that you have spent a year in England driving a leased automobile. To drive successfully during that year, and to stay alive, there are many aspects of your earlier habits (corresponding to driving your own car in the United States) that you need to inhibit. When you stop driving in England, however--which we can presume means that you have returned to the United States--it will be very useful if those inhibited habits recover in strength. As that example illustrates the conditions that result in our ceasing to use more recent representations will often also result in less recent representations becoming relevant. It will be adaptive, therefore, if access to those representations recover.

IMPLICATIONS FOR CONSUMER RESEARCH

Marketing

Several recent studies suggest how marketers can use advertising and point-of-purchase displays to activate inhibitory mechanisms in memory. This may help them gain a competitive advantage in situations where recall is a major determinant of consumers' choices, such as when none of the alternatives are physically present (e.g., when writing down a shopping list or choosing a restaurant) or when not all competitors can be found at the same location. Having subjects think about one or more particular brands not only increases the salience in memory of these brands, and the likelihood they are considered for purchase, but also can inhibit the recall of other product category members that otherwise would be candidates for purchase (Alba and Chattopadhyay 1985a, 1986; Miniard, Unnava and Bhatla 1990). This retrieval inhibition phenomenon--referred to

earlier as the part-set or part-category cuing effect--has also been demonstrated for recall of product attributes (Alba and Chattopadhyay 1985b). Marketers apparently can choose the product dimensions on which they want to be judged *and*, at the same time, inhibit consideration of alternative dimensions on which their competitors are superior.

In a similar vein, Keller (1991a, 1991b) shows how recall of the communication effects for a particular advertisement--that is the content of the advertisement and the responses to this content--can be impaired by the presentation of advertisements for competing brands in the same product category (see also Burke and Srull 1988). This inhibition effect even occurred within a group of advertisements of the same valence, presented in the same experimental session (Keller 1991b).

Because successful retrieval of an item strengthens the representation of that item in memory, a marketing campaign that initially influenced recall may have prolonged effects. From a memory perspective, each new purchase and usage of a brand further inhibits consideration of its competitors. Because retrieval of an item is a more potent learning event than the mere exposure and processing of that item, advertisers may want to trigger retrieval attempts in their audience during the presentation of commercial information. A campaign with a series of consecutive commercials in which each, implicitly, refers to the previous "episode" of the series can stimulate recall activities. Similarly, radio messages may contain cues that trigger the recall of the visual elements of a television commercial in the same campaign. These synergistic effects should enhance memory retrieval of the focal brand and inhibition of its competitors.

Consumer Memory

As explained above, memory inhibition may be considered as a fundamental weakness of our memory systems, making us vulnerable to marketing influences that lead to suboptimal consumer decision making. From a more general perspective these effects can be looked upon as an--unfortunate--by-product of a complex of mechanisms that, given the constraints of our memory structure, serves our overall needs. The global advantages of the combined mechanisms of activation and inhibition are most apparent when one follows the memory representation of interrelated sets of knowledge across an extended period of time. Unfortunately, memory researchers have little hard evidence to offer to enhance our understanding of storage and retrieval of complex information in a long-term perspective. Traditional memory research methods (in particular the proverbial memory experiment with a study trial, distractor task and memory test in a single session with simple materials, such as nonsense syllables, to be remembered) do not address these dimensions. It is more important to examine the acquisition of knowledge on the basis of experiences which are distributed in time. During intervals between these exposures, access to the knowledge of interest will be impaired as a consequence of previous and new

presentations of related information. An interesting and unique attempt to follow these cycles of acquisition, loss, and reacquisition over time can be found in Bahrack (1979).

To illustrate our general claim about the adaptive features of inhibition, we have to resort to the description of a hypothetical case, which the reader probably can link to personal anecdotal evidence. Consider an individual's history of experiences with a frequently purchased branded grocery product such as breakfast cereals. Most of us have already tried out multiple offerings in this product category. Promotions and special pricing entice us into trying previously unknown brands, satiation with known brands and the desire for variation may cause periodic switching between brands, and our mother, or spouse, or friend, having invited us for breakfast, may urge us to try a particular brand, either because they like that brand or because they think it is exactly what we need. Ideally, the complete set of experiences with each of the alternatives should be available at each purchase occasion to allow us to make an optimal choice. Time constraints evidently prohibit consideration of all this information, and the processing costs would outweigh the expected benefits. Some of the product knowledge may even be completely irrelevant, for instance, because an alternative may have disappeared from the market. Even a random draw from the pool of currently available alternatives will not be maximally informative: preferences and tastes tend to change with time and aging, and social forces also have an impact on how appropriate certain choices are. In many product categories there is therefore no absolute best choice for a particular person across all purchase occasions. Time and context dictate the best choice. Someone on a diet now would probably like to suppress recall of his or her once favorite Chocolate Sugar Crunch cereal. One may be praised as a beer connoisseur in this country, for ordering Heineken, while the second author's Belgian friends would certainly frown upon this choice.

Within certain constraints, recently acquired or activated information will be most relevant to our current decisions and choices and will be most easily recalled. Products and brands that we can recall now without any effort, for instance when writing down our shopping list, are those that we retrieved from memory, purchased or encountered in the recent past. Those are the ones which best serve our needs, given our current taste, social status, and dietary needs, and given this season's fashion and the current state of technology. (A recent disappointing product trial will also be salient. The product will first be consciously avoided and then gradually lose its salience.)

Activation mechanisms, without inhibition being involved, could produce most, if not all, of these desirable effects. A change in context may, however, make highly active information completely irrelevant for present purposes. The retrieval of recently activated, but now irrelevant, information would not only slow down our performance but could also lead to suboptimal choices. Fortunately, the new set of memory cues that becomes available with a

change in context not only activates a new set of knowledge, but also inhibits possibly competing, but now obsolete, information.

People who regularly spend time in a different country can experience how easily they can recall the different brands of a product that are unavailable in the U.S., given the proper retrieval cues, and how little interference there is from American brands in the same product category that are not distributed in that country. Similarly, current middle-aged shoppers for a television set will not search for one of the many American brands that were available before Japanese electronic companies started dominating the market. Even without conscious learning attempts, our knowledge about market evolutions is constantly updated by the dual mechanisms of activation and inhibition. On the other hand, the features of our first, now almost historic, television set can be retrieved when recollecting personal experiences and anecdotes. Interestingly, our discussion about inhibition also illustrates that recognition may be a less relevant criterion for advertising effectiveness than some authors (e.g., Singh, Rothschild and Churchill 1988) claim. Relying on recognition alone to make a choice would be too time-consuming and overwhelming in today's complex choice environment, and would generate too large a consideration set. So even when all alternatives are visually present, recall (and inhibition of recall) play an important role that is functional in satisfying our needs, with a minimum of cognitive effort.

CONCLUDING COMMENT

There is within human memory a complex interplay of storage and retrieval processes. The pattern of items that are accessible and non-accessible shifts and fluctuates as a consequence of new learning, retrieval practice, and changing contextual cues of multiple types. We have attempted to argue herein that inhibition and competition are as important in the dynamics of such shifting patterns of access as are processes of activation and association.

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Consideration of Inhibition as a Mechanism in Decision Processes

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ABSTRACT

This paper explores the implications for choice which result from abandoning the capacity model of attention for the selection for action model. Specifically, the likely role of the process of inhibition in choice is discussed. Functions which inhibition may fulfill during choice are proposed. For instance, inhibition may operate upon representations of attractive but nonchosen alternatives, allowing the decision maker to move forward with a minimum of cognitive conflict. Predictions regarding the amount and direction of inhibition during choice are also offered.

The fields of decision theory and marketing have traditionally borrowed from cognitive psychology in order to predict and explain decision making. The capacity model of attention, which has been dominant in cognitive psychology for some time, has often been utilized to explain choice behavior. Criticisms of, as well as alternatives to, the capacity model have recently emerged. The selection for action model, a dominant alternative, stresses the importance of inhibitory processes to cognitive functioning. This paper will consider the choice process within a selection for action framework, concentrating upon inhibition's possible role in choice.

MODELS OF ATTENTION

General capacity or resource views of attention cite a limited supply of cognitive resources as the reason for limitations in cognitive functioning. Several compelling criticisms of the capacity view, which in total leave much doubt as to its viability, have been formulated (e.g., Navon 1984; Neumann 1987). The capacity model is likely unfalsifiable and methods which are purported to test this model have alternative explanations (Navon 1984). Resources defy definition, and methods used to determine resource utilization or availability usually yield conflicting results (e.g., Navon 1984). For instance, it is often proposed that one can deduce resource requirements by measuring interference found between concurrently performed task pairs. However, results in these dual task studies are highly dependent upon the specific structure of each task. These conflicting results led to the suggestion that distinct resource pools exist and that tasks will interfere with each other to the extent that they draw upon identical pool(s). However, even multiple resource views cannot with any degree of parsimony account for both the extremely specific (i.e., based upon task similarity) and the general (i.e., present with any task combination) interference found among dual task combinations (Hasher and Zacks 1988; Neumann 1987). Finally, it is unclear at what stage in information processing the resource "bottleneck" manifests itself, for humans are quite capable of

parallel information processing prior to overt response (e.g., Neill 1989).

An alternative to capacity views, selection for action models generally seem to account for data better than and avoid the many theoretical difficulties of capacity models. These models take a more functional approach, searching for *sources* of attentional limitations. The most obvious source of limitation in information processing results directly from motor limitations. Simply, some mechanism must prevent physically incompatible actions from being attempted, for such attempts would preclude coherent physical or mental activity (e.g., Neumann 1987). A second source of limitation is inferred from the fact that information streams may apparently become confused during processing. For instance, in the Stroop paradigm, subjects required to name the ink color of a word are slowed when the word spells a different color. In other words, multiple, often conflicting representations of stimuli must be narrowed down so that (ideally) only task relevant information is sustained in consciousness (Neill 1989). These motor- and information-based limitations are often discussed separately; however, interference among information streams may result from the fact that such streams often have incompatible implications for action. For instance, in the Stroop paradigm, incompatible tendencies to speak two different color names may arise. Thus, all cognitive limitations may ultimately be traceable to the motor system.

Selection for action authors propose that attention operates to suppress representations which potentially conflict with one's ongoing stream of action (e.g., Neill 1989; Neumann 1987). This is necessary to avoid attempts to complete physically incompatible actions. Of course, physically compatible actions are also frequently prevented. This may happen because the brain operates by a simple blocking mechanism, with one ongoing action or set of actions typically suppressing all others (e.g., Neumann 1987). This apparent inefficiency in attention is likely necessary because there is no "central executive" with sufficient knowledge to ascertain which actions are incompatible. Thus, while capacity models explain most cognitive limitations as resulting from an inadequate resource supply, selection for action models view these same limitations as resulting from active inhibition. This emphasis upon inhibition is likely the most significant departure of the selection for action model from the capacity model. Empirical evidence for active inhibitory processes may be taken as support for the selection for action view; this evidence is reviewed below.

Empirical Demonstrations of Inhibition

There is abundant evidence that inhibition operates in lower level cognitive processes. In selective attention tasks, an ignored stimulus is generally disadvantaged when it is the stimulus to

which the subject must respond on the subsequent trial (e.g., Hasher and Zacks 1988). This indicates that an active inhibitory process acts upon the representations of distractors. For example, if during a Stroop task the ignored word on trial one is identical to the ink color one must name on trial two, response times for the second trial lengthen (e.g., Neill and Westberry 1987). This general pattern of results has been found numerous times using many attention tasks (e.g., Driver and Tipper 1989; Neill, Lissner, and Beck 1990).

More important to my hypotheses concerning the relationship between inhibition and choice, inhibition has been implicated in higher level cognitive processing. Bjork (1989) proposes that a process of retrieval inhibition operates, beyond effects of differential rehearsal, to eliminate access to items which subjects are instructed to forget. Retrieval inhibition may also be inadvertently produced; for example, rehearsal may result in a loss of access to related information (Bjork 1989). Inhibition may operate within comprehension, suppressing words' alternative meanings and irrelevant associations (e.g., Hasher and Zacks 1988; Simpson and Kellas 1989). Simpson and Kellas (1989) find slower responses to a word related to one meaning of an ambiguous prime when the prime has previously been paired with a word related to a different meaning. For example, their subjects are slower to respond to the word "money" after the prime "bank" when they have previously responded to "river" after "bank." This and other empirical work indicates that inhibition is an active, goal directed process which decouples representations from consciousness and/or from action control.

CHOICE

Decision theorists are painfully aware of man's limitations as an information processor. For instance, individuals do not seem capable of trading off or otherwise combining more than a few attributes during decision making (e.g., Shepard 1964). Capacity limits have, at least implicitly, been accepted as the explanation for observed limitations in decision making. Given the compelling criticisms of capacity models, it may be useful to explore alternative causes of these limitations, such as those implied by the selection for action model.

It is not immediately apparent what abandoning the capacity model for the selection for action model implies for choice theories. This new model uniquely predicts that inhibition will play a central role in cognitive functioning, but what understanding or new hypotheses does the process of inhibition add to choice? This question is addressed below.

Inhibition in Choice

Alternatives in choice almost invariably elicit conflicting action tendencies, or the desire to approach (i.e., to buy) more than one alternative simultaneously. It will very likely cause conflict to give up any attractive alternative(s) when one is not absolutely certain that one's choice is optimal. Such

certainty in choice seems unlikely, especially given that people often do not know what attribute levels they do or will prefer (e.g., Shepard 1964). Hence, choice is inherently laden with conflict. Limits apparently exist on the amount of conflicting information one can comfortably sustain in consciousness (e.g., Neill 1989). In choice, individuals may be limited by this inability to sustain cognitive conflict rather than by resource supplies.

Processes which allow a decision maker to deal with conflict in choice have been proposed. Individuals may selectively attend to goal related information, encoding only items which will bolster or protect their current intentions or decisions (Montgomery 1989; Kunda 1990). Montgomery (1989) describes decision making as dominance structuring, or the search for a cognitive representation in which the chosen alternative is best on every relevant attribute. Such a representation may be possible only if the decision maker restricts her attention to a subset of alternatives and attributes, ignoring those which violate dominance (Montgomery 1989).

Inhibition may operate within dominance structuring or other cognitive processes to eliminate conflict in choice. Decisions have been proposed to result from temporary states of mind which allow one alternative to seem best (Shepard 1964). These temporary states of mind may be attained by inhibiting representations of alternatives, attributes, and/or specific alternative/attribute values. Inhibition may operate to decouple all but the chosen alternative from the control of action. The inhibition of problematic attributes may allow choice to proceed without the completion of difficult trade offs. For instance, a car buyer who is unable to decide how much he is willing to pay for an additional "unit" of safety may simply inhibit safety considerations. People may inhibit disadvantages of their chosen alternative and/or advantages of other alternatives. In summary, inhibition may selectively restrict the activation of information, producing a cognitive representation in which one's chosen alternative seems more like a dominating alternative than it is in any objective sense.

P1: Immediately after choice, a individual should display:

- a.) inhibition of items inconsistent with dominance.
- b.) more difficulty retrieving these items than retrieving items consistent with dominance.

The inhibition proposed above, and discussed in several later propositions, would be indicated by a longer latency in responding to (i.e., naming) an item than in responding to a control item.

Long Term Effects of Inhibition. An inhibition framework implies ways in which successive choice outcomes may be related; capacity models, in contrast, do not directly address these relationships. Inhibition may have enduring effects

upon thoughts which an individual has reason to escape. Relatively permanent inhibition may operate upon items such as the disadvantages of one's chosen alternative. Inhibitory pathways analogous to the associative links developed when two thoughts are simultaneously rehearsed may cause one node to automatically *inhibit* another. If so, inhibition during choice should make consideration of a chosen alternative's disadvantages less likely and therefore should correlate negatively with post decisional regret or cognitive dissonance. Further, long term inhibition acting upon nonchosen brands could cause resistance to their reconsideration. This resistance may hold even after preferences and/or product attributes have changed, perhaps making an inhibited brand optimal. This process could operate to create and maintain brand loyalty. Inhibition may also underlie the demonstrated tendency for chosen alternatives to be remembered best (Johnson and Russo 1981) and the low probability of choosing a previously rejected brand even when new information makes that brand more attractive (Biehal and Chakravarti 1983).

Factors Influencing Inhibition

The following sections will focus upon the influence which situational factors and goals may have upon the direction and magnitude of inhibition in choice. Two situational factors are discussed: the overall nature of the evoked set and agenda effects. The discussion of goals focuses upon the effect of effort/accuracy trade-offs upon inhibition. The relationships hypothesized below may not be apparent when using a capacity framework to understand decision making.

Situational Factors. Inhibition seems to operate rather selectively upon representations which have the potential to produce confusion or conflicting response tendencies (e.g., Neill 1989). Therefore, one may be able to predict the target(s) of inhibition by determining the likelihood of conflict. For example, conflict in choice seems more likely to the extent that alternatives are close in expected value. Therefore, when alternatives' values are close, inhibition, especially inhibition of nonchosen alternatives with relatively high expected values, should rise. Attributes on which the chosen alternative is weak may also show increased inhibition in this case.

Inhibition may dampen activation of material that is extraneous to the choice process as well as information causing conflict. The functions of eliminating conflict and of suppressing irrelevant information may have conflicting implications for the inhibition of any one item. Material which is completely irrelevant to choice should not produce conflict, and vice versa. For example, dominated alternatives may produce no conflict, but they may be clearly extraneous to the decision process. Therefore, it is difficult to determine whether a dominated alternative will be inhibited. However, situational factors may allow for such prediction. For instance, it seems that alternatives dominated by the chosen alternative will not be inhibited because they can be

profitably incorporated into a dominance structure, and therefore are not truly irrelevant to choice.

P2: Inhibition should operate upon:

- a.) information which produces cognitive conflict.
- b.) extraneous information activated during choice.

More specific hypotheses are also possible, such as:

P3: As a non-dominated alternative's expected value becomes closer to that of the chosen alternative, inhibition of that alternative becomes more likely.

P4: Dominated alternatives are likely to be inhibited, unless they are dominated by the chosen alternative.

The above analysis is very different than the one which a capacity viewpoint would yield. The selection for action framework uniquely implies that one's ability to simultaneously consider a number of alternatives will vary as a function of the relationship(s) among the alternatives, rather than strictly of available capacity. For instance, this framework implies that a large dominance structure may be more easily maintained in consciousness than a smaller amount of information relating to severely conflicting alternatives. Stated differently, information overload is no longer strictly a function of the difference between available capacity and externally available "bits" of information. Information overload may occur due to incomplete inhibitory processes and may be indicated by sustained activation of extraneous or conflicting information. This break down may be correlated with both the amount and the type of information available.

P5: Information overload is more likely as:

- a.) more information is available.
- b.) pieces of information related to a choice conflict with one another more severely.

Again, it is also possible to develop more specific predictions, for example:

P6: Subjects will be better able to process and to recall a given amount of choice information as that information more closely approximates a dominance structure.

A second situational factor which may affect inhibition is the order in which alternatives or attributes are considered. Inhibition in attention tasks is most likely once an individual focuses upon a candidate for response (Neill 1989). During decision making, a tentative choice is analogous to a candidate

for response. Much of the choice process seems to involve a building up of one's intention toward such a tentative choice (Montgomery 1989). Once one alternative is tentatively accepted, any information which indicates that this alternative is not best will potentially cause competing action tendencies, and so may be inhibited. It seems likely that there is some arbitrariness to which out of an acceptable set of alternatives becomes the tentative choice, given that preferences are not always well defined; thus, inhibition may be subject to agenda effects.

P7: Items which are processed earlier will have a lower probability of becoming inhibited than items which are processed later will have.

Note that this proposition implicitly assumes that the individual is processing by alternative, at least during the earliest stages of choice. The order in which attributes are considered may likewise influence which alternative first becomes the tentative choice, especially during more attribute-based processing (Montgomery 1989).

Goals. The selection for action framework often emphasizes the apparent goal directedness of inhibition (e.g., Hasher and Zacks 1988; Neill 1989). This framework implies that more complete information processing is possible if the decision maker adopts the appropriate goal(s). On the other hand, the capacity framework implies that information processing is simply possible before and impossible after a decision problem reaches some level of demand for capacity. Again, the selection for action model uniquely implies situational variance in individuals' abilities to process information.

If inhibition is goal directed, the decision maker's goals should directly influence the choice process. Inhibition may be driven by the extent to which the goal of minimizing effort (versus maximizing accuracy) is prevalent. Inhibition may act as a substitute for effort during choice, allowing confidence in a decision although all of the appropriate comparisons and trade-offs are not made. Hence, as one's relative emphasis on minimizing effort rises, more inhibition should be observed in choice. Of course, inhibition may also be necessary when an individual has made the most accurate choice possible, for choice will almost always involve both conflicting and extraneous information. Still, if accuracy is foremost, inhibition should be relatively less prevalent, allowing more complete memory search and decision processes.

Further, specific goals have been hypothesized to enhance the accessibility of information consistent with them (Kunda 1990). Perhaps inhibition is the mechanism through which this occurs. For instance, some motivation to buy one brand may initiate inhibition of that brand's most attractive competitors.

P8a: Within a given level of confidence in a given decision, inhibition and effort will be inversely related.

P8b: Goals of accuracy and effort should have inverse effects upon inhibition's magnitude while more specific goals should influence inhibition's direction.

The goal to minimize effort may be somehow "hardwired," or present unless an individual makes considerable effort to overcome it. Effort minimization, and the concomitant inhibition, may have adaptive value in many decision situations. Neumann (1987) discusses the problem of picking a path of escape from a predator. In such cases, unwavering commitment to a course of action is often more important than which alternative course is actually chosen. Inhibition may serve the crucial function of eliminating doubt, therefore allowing the chosen alternative to be executed as quickly and completely as possible. This is also consistent with Shepard's (1964) assertion that the primary goal in choice is to escape the conflict of the decision situation. Situational factors, such as involvement, will likely influence the extent to which the decision maker desires to make a truly accurate choice.

CONCLUSIONS

This paper represents an attempt to develop the implications for choice realized by utilizing an alternative to the capacity framework of attention. In general, it seems that decision researchers would be well served to abandon the computer metaphor for a brain metaphor acknowledging the parallel processing, and the excitation and inhibition, which underlie cognitive functioning (Bjork 1989). Part of this process will likely involve abandoning the capacity model which has been heavily influenced by the computer metaphor (Bjork 1989; Navon 1984). It is hoped that this work provides a small step toward such a paradigm shift.

Investigation of inhibition in choice is important for a broader reason than its impact upon consumer and decision making research. Inhibition has the potential to be a powerful unifying principle in psychology, illuminating topics from perception (McClelland and Rumelhart 1981) to choice. In fact, the principle of inhibition may have the considerable unifying power often attributed to the capacity metaphor. The finding that inhibition operates in choice would be evidence for such unifying power.

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Driving Passions: Vehicles and Consumer Culture

Michael R. Solomon, Rutgers University

OBJECTIVE OF THE SESSION

Few consumer researchers would dispute the contention that automobiles and other vehicles have evolved into some of the most significant material objects in popular culture. This special session focuses on some of the relationships between vehicles, consumers, and popular culture from a variety of perspectives.

BACKGROUND

Cars and other vehicles both shape and reflect consumer behavior processes, especially because they often serve as an important extension of the self and as a mediator of self-concept (cf. Belk 1988; Flink 1988; Marsh and Collett 1986; Solomon 1983):

- They have significantly influenced demographic patterns (e.g., by providing the catalyst for suburban development)
- They have affected social relationships (e.g., by facilitating changes in sexual mores via drive-in movies, "lovers lanes," etc.)
- They are connected to expressions of cultural values (e.g., individualism, power, freedom, materialism)
- They are canvases upon which developments in design and esthetics are created (e.g., as representations of modernity)
- They provide props for the enactment of such cultural structures as myths and rituals (e.g., the rite of passage associated with the granting of a driver's license to an adolescent).

Relationship to Prior Work

Recognition of the pivotal role played by vehicles in consumer culture is not new. Indeed, Birdwell's (1964) research comparing the self-concepts of Pontiac and Volkswagen owners was one of the first self-product image congruence studies. Cars also figured prominently in classic motivational research analyses conducted by Ernest Dichter, Pierre Martineau, Sidney Levy, and others. Russell Belk's development of the extended self construct explicitly includes the auto in its discussion of the investment of self in objects (Belk 1988).

Despite the prominence of vehicles and ancillary products in advertising and other aspects of consumer culture, surprisingly little research has focused specifically upon artifacts linked to personal transportation. In recent years, ACR presentations and other consumer behavior literature have witnessed an upsurge of interest in such expressive products as housing and home decoration (e.g., Claiborne and Ozanne 1990; Kron 1983), cosmetics and other forms of body modification (e.g., Schouten 1991), and

clothing (e.g., Solomon 1986). This recognition of the communicative properties of products has not been paralleled by empirical or ethnographic work on consumer vehicles: "living rooms on wheels."

This session aims to redress this omission by providing four different perspectives on consumers' relationships with vehicles. Taking a symbolic/linguistic perspective, Barbara Stern and Michael Solomon approach the vehicle as a medium for interpersonal communication. They present research on car ornamentation, with a specific focus on the messages transmitted by consumers' choices of bumper stickers and other semantic media as they personalize their vehicles. John Schouten and James McAlexander explore in depth the consumption subculture composed of Harley-Davidson motorcycle owners, and also assess the interactions of owners with the company itself. Bruce Vanden Bergh examines literary and cultural influences on advertising creatives, with particular reference to Doyle Dane Bernbach's classic Volkswagen Beetle campaign. Finally, David Banik discusses research done for Amoco gasoline by the DMB&B advertising agency on consumers' relationships with their cars.

OVERVIEW OF SPECIAL SESSION PAPERS

"Have You Kissed Your Professor Today?": Bumper Stickers and Consumer Self-Statements

Barbara B. Stern, Rutgers University
Michael R. Solomon, Rutgers University

We approach the car as a highly visible communications medium that permits consumers to make a wide range of statements about themselves and the world around them. This paper presents research on the rich variety of car ornamentation, with a specific focus on the messages transmitted by consumers via bumper stickers and other semantic media. The research program aims to better understand the dynamics of cars as social or personal canvasses by which expressions of the self are signified within the context of mass culture.

Bumper stickers represent a unique "media" category in that they convey *in words* direct consumer statements -- self-proclamations, affiliation with kinship groups, directives to others, epithets, boasts, and so forth. Furthermore, the choice of these statements (or whether to display any at all) is highly voluntary, thus affording insight into consumers' volition and commitment to the messages. As such, these media afford the opportunity to study consumer communication about the self (personal identity) and about outreach to others (social identity) in terms of verbal artifacts freely chosen. The overt and public nature of these verbal statements renders them particularly accessible to systematic empirical analysis.

Volkswagen as "Little Man"

Bruce G. Vanden Bergh, Michigan State University

This presentation makes the case that the creative approach employed in the well-known Volkswagen Beetle campaign did not come out of the air as suggested by advertising great David Ogilvy, but instead had as its foundation fairly specific cultural and literary origins. The primary strategy of the campaign was to position the Beetle as an automotive "Little Man" who could not (and did not want to) live up to the superficial styling and advertising offered by the major American car manufacturers. Instead, the strategy was to offer the consumer an honest vehicle that could deliver on its rather understated promises.

The use of the little-man persona to criticize social inequities and myths is not entirely new, for it can be traced to the use of the clown in such works as William Shakespeare's *Twelfth Night*. This little-man character, much like a hero, is an archetypical character who is often conjured up to confront forces larger than the individual. And, this approach is often executed in a humorous vein in order to leave the audience hopeful of reconciliation at some future point in time.

The presentation analyzes eleven advertisements from the Volkswagen Beetle campaign to demonstrate how the little-man approach has been executed over time. Finally, the presentation addresses some of the practical considerations that made the campaign a success. These include the uniqueness of the Doyle Dane Bernbach agency, the forthrightness of the client, the influence of *The New Yorker*, and the social context provided by the iconoclasm of the 1960s.

Hog Heaven: The Structure, Ethos, and Market Impact of a Consumption Subculture

John W. Schouten, University of Portland

James H. McAlexander, Oregon State University

Past studies of subcultural consumption patterns have focused on ethnic or other ascribed subcultures, which, despite some general commonalities, often display such diversity of consumer preferences as to limit severely their potential as market segments. This research looks instead to subcultures that self-select on the basis of shared consumption interests (cf. Donnelly and Young 1988).

The study focuses on the behaviors, values, structures, and market importance of one such consumer subculture - namely, Harley-Davidson motorcycle owners. Data are drawn from a wide variety of sources including depth interviews with Harley owners; participant and non-participant observation at such venues as rides, rallies, swap-meets, HOG meetings and other club gatherings; archival sources such as ethnographies of motorcycle gangs, biker fiction and poetry, and biker magazines; and depth interviews with key members of the Harley-Davidson Motor Company in such areas as product design, marketing strategy, advertising, and retail sales.

The presentation discusses the structure and ethos of a complex consumption subculture and its interaction with the Harley-Davidson Motor

Company. It offers fresh perspectives of such traditional marketing themes as brand loyalty, product positioning, opinion leadership, and new-product development. Furthermore, new themes for marketing scholarship emerge from a focus on marketers and subcultural groups as co-creators of product symbolism and subcultural identity.

The All-American Unobtrusive Measure...Or, You Are What You Drive, Even if You're Not From California

Douglas Banik, DMB&B Chicago

Californians wear their cars the way

Midwesterners wear class rings and Easterners wear school ties. Many spend more per month on their car than they do for housing. As one Californian told me, "I can live in my car, but I can't drive my house."

Aberrant behavior? Maybe. But as with much that we associate with the West Coast, attitudes toward cars are simply more obvious, more extreme, and a bit ahead of attitudes in the rest of the country. Just a little bit of historical perspective reveals that in many ways the car defines much of what is American. It is symbolic of our affluence, our technical leadership, our commitment to freedom and individualism. And what is true for our society is largely true for each of us as individual members of that society. We buy cars that fit with our self-image, that say something about us, that say something to us.

As marketers of gasoline, we've had to be very sensitive to the relationship of the motorist and his or her car. For example, many car owners anthropomorphize their cars. They describe them as "sexy, cute, muscular, quick, hot, powerful, macho." Some give their cars names. Others claim they run better after they've been washed. And many tell us their car "knows" whether it's getting the best gasoline. We've built a whole campaign around that one. These motorists wash their cars more frequently, change the oil more often, accessorize and customize their cars, drive more miles, and enjoy their cars more than do other motorists.

Other segments of motorists have quite different relations with their cars. For example, some consumers see their vehicles as functional, precision machines. They're willing to pay for good quality gasoline, but not for octane they don't need. Others are purely utilitarian: They rarely wash their cars, never wax them, and forget to change the oil.

The key point is that for all of these motorists their cars say something about them: about their success and achievement, their intelligence and practicality, or about their preferences for a sedentary lifestyle. This presentation discusses research on these motorist self-statements, and demonstrates how the insights derived from our work for Amoco have been translated into actual advertising executions.

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"Have You Kissed Your Professor Today?": Bumper Stickers and Consumer Self-Statements

Barbara B. Stern, Rutgers, The State University of New Jersey
Michael R. Solomon, Rutgers, The State University of New Jersey

Cars and other vehicles both shape and reflect consumer behavior processes, insofar as they often serve as an important extension of the self and as a mediator of self-concept (Belk 1988; Solomon 1983). Their influence on the consumer extends beyond their transportation function, for cars have affected demographic patterns by providing the catalyst for suburban development. Additionally, they have affected social relationships by facilitating changes in sexual mores via drive-in movies, "lovers' lanes," and -- with the popularity of vans -- portable bedrooms. Cars are also powerful symbols that express cultural values such as power, freedom, materialism, success, and individualism.

As expressions of individualism, cars are a canvas for personal statements. In addition to the symbolic statement made by the car itself, consumers can add self-statements by means of bumper stickers and additional symbolic statements by means of other ornamentation, such as objects dangling from mirrors, custom paint jobs, and elaborate stereo equipment. Bumper stickers represent a unique ornamentation category in that they convey direct consumer statements -- self-proclamations, names of kinship groups, messages about the self or directives to others, epithets, boasts (Baker 1991), and so forth -- in words. As such, they afford the opportunity to study consumer communication about the self (personal identity) and about the self in relation to others (social identity) in terms of verbal artifacts that the consumer has chosen. Furthermore, since they are widely available and inexpensive, bumper stickers can be exhibited by consumers of many social strata. The overt and public nature of these verbal statements render them not only highly visible, but also fortuitously accessible for research purposes.

The aim of our overall research project on car ornamentation is to understand the dynamics of cars as social canvases on which expressions of the self are displayed against the background context of mass culture. This paper begins the project by developing a theoretical base for analysis of bumper stickers as a communication medium for consumers and by reporting on the findings of an exploratory study designed to test the theoretical concepts. To initiate the research stream on verbal ornamentation, we address the following questions:

- What kinds of messages are likely to be conveyed?
- How can the universe of messages be described taxonomically?
- What future research issues should be addressed?

BUMPER STICKERS: THE NATURE OF CONSUMER SELF-STATEMENTS

Bumper stickers represent an outlet for consumer creativity (Stern and Zaichkowsky 1991), insofar as selection processes are involved in two choices: first, the choice to use (or not to use) a sticker, and second, which one to use. In terms of use versus non-use, let us note that since the purchase of stickers is voluntary, their absence is a statement as significant as their presence. As expressions of creativity, stickers afford an opportunity for playfulness, humor, statements of feelings and opinions, and announcements of affiliation. These statements can be personal or social, micro-level or macro-level, and self-deprecating or self-enhancing. While often the verbiage is not "original" -- that is, unique to the consumer -- this is not always the case, for catalogs such as Hanover House sell "design your own" customized messages. No matter what the message content, its media "reach" is widespread, for it is a public self-statement observable by all passers-by.

This research relates to studies of other forms of public self-statements that can be considered aspects of the extended self -- notably tee shirt slogans -- but differs in focus. Unlike tee shirts, cars are durable goods, and bumper stickers represent a more permanent part of automotive decor than any single tee shirt in one's wardrobe. Thus, bumper stickers make a more enduring statement insofar as they are not easily changed or discarded, and for that reason may relate to the more stable aspect of the extended self.

Further, their explicitness as self-statements makes them more overt attitudinal comments. In effect, consumers are revealing something about their attitudes directly in words -- a medium not only visible to other drivers and pedestrian passers-by, but also to researchers. The nature of these statements (or lack thereof) is not only visible, but also readily amenable to interpretation as specimens of language with formal dimensions (grammatical and literary) as well as with content dimensions. What consumers say about themselves symbolically through their possessions has been studied in reference to the "extended self" (Belk 1988), with objects viewed as implicit self-statements. We propose that examination of bumper stickers can extend our knowledge of the extended self by affording researchers the opportunity to analyze *explicit* attitudinal comments. In sum, the stability, visibility, and interpretability of bumper stickers make them a meaningful canvas for researchers to examine.

TABLE
The Theme-Referent Matrix

		Referent		
		Self	Collective/ Other(s)	Abstract
Theme	Doing	1	2	3
	Being	4	5	6
	Feeling	7	8	9
	Metonymic	10	11	12
	Other	13		

Note: Numbers in the Table refer to specific theme/referent combinations isolated and discussed in text.

A TAXONOMY FOR BUMPER STICKERS: CONTENT ANALYSIS AND PARSING THE GRAMMAR

Once bumper stickers are identified as worthy of analysis, the next question is, how best can they be analyzed? The theoretical basis was drawn from the trilogy in communication theory -- source, message, and target. "Source" was interpreted as the *car*, and its attributes were defined as number of ornamental items per car, make and model of vehicle, condition, and so forth. "Message" was defined as the *content* or *theme* of the words (the "what"), and "target" was defined as the *referent* -- the person/group/thing that the message is about (the "who").

In order to maximize understanding of both content and form of the messages, we decided to augment the methodology of content analysis with a familiar method for analyzing sentences: grammatical parsing. That is, for each word group on a sticker we set out to identify the parts of speech (noun, verb, pronoun), its grammatical function (subject, verb, object), and the kind of statement (declarative, interrogative, imperative), just as one would do if one were to parse an English sentence. The purpose of this was to expose the linguistic structure of the messages in order to use grammatical form as well as content as a guide to meaning.

Since the universe of messages has not received research attention, a pilot study was conducted to ascertain the formal and content domains in a representative environment. This study was conducted in a northeastern suburb, using student observers to collect data from a sample of cars ($N = 200$) observed over several occasions in the parking lot of a large suburban shopping mall serving a wide trading area. The researchers examined the samples inductively, subjecting them to a content analysis using a researcher-generated typology of meaning similar to "domains" typologies used in exploratory psychological research. The procedure involves sorting the messages into groups based on the dimensions of meaning conveyed by the grammatical entities -- verb ("theme") and the noun or pronoun ("referent"). Further sorting took place when the focus was on content, to identify the areas of expression

(such as hobby/sport/lifestyle or political/environmental/patriotic) and strength of expression (neutral, negative, positive). The outline of the matrix and the thirteen categories will now be discussed (see Table).

Theme

The concept of content or theme in verbal messages has long been used in content analysis (see Kassarjian 1977), and is especially suited to short and unambiguous messages such as those in advertisements (Belk and Pollay 1985), and humorous ones such as those in comic books (Spiggle 1986). Since bumper stickers convey attitudes about the self, the attitude model of affect-cognition-behavior seemed a likely source of thematic dimensions. We hypothesized that the attitude's locus would be expressed in the *verb*, for that is the grammatical indicator of the "what" of meaning. The four theme categories express the "what" of the messages in the universe examined, including the dynamic categories of "feeling-doing-thinking" and the static category of metonymic association.

Feeling messages are about affect, and express a feeling or an emotion. The verbs are likely to be ones indicating action, but "internal" action that occurs within the individual rather than "external" action that occurs on the social stage. An example is, "I love New York." *Doing* messages are about behavior, and are likely to indicate overt or external action. This is generally expressed by active verbs -- those that take objects. An example is, "Rugby players eat their young," in which the subject ("Rugby players") does something ("eat") to the object ("their young"). In contrast, *being* messages, those about a thought, an opinion, or a state of being, are likely to be indicated by verbs of being (to be, to seem, to appear). These are linking verbs that do not have an object, but merely link two entities. An example is, "If you're rich, I'm single," an if-then expression of the state of being of the message source ("I am single") and also of the target ("You are single").

A fourth message category was necessary to categorize those messages that had no verbs, and thus expressed neither action nor inaction. This was called

metonymic (Stern 1992) to indicate that the message cathetically *associates* some person, place, idea, or thing with the car to which it is attached. In this category, the connection of the message with the source is assumed on the basis of cathexis, for just as body parts are in cathectic association with the consumer, so too are bumper stickers with a car. Grammatically, the message is likely to be limited to a noun or noun phrase, for it names something, and in the absence of any verb, the action can only be presumed to be an association of the item named with the consumer. Some examples are, "Power 95" (the name of a radio station), "Rutgers," the name of a university, and "AAA," (the abbreviated name of the American Automobile Association).

Referent

"Referent" refers to the person, group, or thing that the message is about -- that is, its "who." Grammatical concepts of nominal and pronominal reference reflect the tendency of people to make statements about themselves, other people, or ideas. English pronominal structure determined the parsing of statements to distinguish between first-person usage ("I," "we"), second-person usage ("you"), and third-person usage ("he," "she," "it," and "they"). Note that the third-person includes the non-personal "it," and that "they" is an all-purpose plural denoting more than one of anything (personal or abstract). The sticker referents echoed these categories, depending on whether they referred to the personal (self), the other (collective, group), or the non-personal (abstract).

Self messages refer to a comment about the person(s) on whose car the sticker appears. The context is personal, and is indicated grammatically by the first-person singular or plural ("I" or "we"). The sticker makes a statement (a declarative sentence) about the "I" or the "we." An example of the singular self-statement is, "I love New York," and of the plural, "We brake for animals."

Collective/other messages refer to a comment about a collective group of individuals that may or may not include the self. The context is social, and the "other" may be an institution, a religious or ethnic group, an occupational group, a country-of-origin, or any entity that comprises a group of people considered as part of a collective (rather than as individuals). When the grammatical mood is declarative -- a statement of fact -- the message is meant (albeit facetiously) to be read as a true statement. One example is, "Sewer diggers do it deeper," referring to an occupational group in a third-person plural. Another is, "Mother-in-law in trunk," referring to someone other than the self in a third-person elliptical declarative statement, with "is" omitted but understood.

When the grammatical mood is the imperative -- that is, a command to "others" -- the message is in the second-person, for "you" is implied in imperatives. An example is, "Kiss a nurse today," where the "you" is understood ["you should kiss a nurse today"] and the command is given via an active verb ("kiss") to do something to another ("a nurse").

Abstract messages refer to comments about an object, idea, place, or any other non-personal entity. The impersonal subject can be singular or plural ("it," and "they" in reference to things, not people), and tangible (a place) or intangible (an idea). The mood can be a full sentence, as in "It's ugly, but it's paid for," which is a complete comment about an object, or an elliptical sentence, as in "Insured by Smith and Wesson," where "[This car is...]" is implied. Abstract messages can also take the form of commands, such as "Split wood, not atoms." Here, the "you" is understood, and the imperative mood is used to command action ("split").

THE THEME-REFERENT MATRIX

The categories described above are used in the "Theme-Referent Matrix," numbered to facilitate the explanations and illustrative examples that follow.

Doing-Self (1) messages refer to a comment (statement, question, command) about an action performed by the self ("I") singly or as a part of a group of similar individuals ("we"). An example of a singular message is, "I owe, I owe, so off to work I go," in which the self is the doer of the actions ("owe" and "go"). An example of a singular question -- the interrogative -- is, "How's my driving?" Here, the self asks a question about something s/he is doing ("driving").

Doing-Collective (2) messages refer to a comment (statement, question, command) about an action in reference to a group of others (not the self). A declarative statement is, "Rugby players eat their young," and an imperative is, "Respect animals, don't eat them." In the latter, a group of others -- the implicit "you" -- are ordered to do something positive ("respect animals") and to avoid doing something negative ("don't eat them").

Doing-Abstract (3) messages refer to a comment (statement, question, command) about an action in reference to an object, place, idea, and so forth. Examples of commands that include what should be done as well as what should not be done are, "Split wood, not atoms," and "Hugs, not drugs." An example of a declarative statement about general life action is, "S___ happens."

Being-Self (4) messages are declarative statements of a thought, opinion, or state of being of the self. Examples are, "I support Greenpeace," and "I'm a card-carrying member of the ACLU." "Bush for President" is an elliptical statement about a self-opinion, in which "I endorse" is omitted but understood.

Being-Collective (5) messages are statements or questions expressing a thought, opinion, or state of being associated with a collective (group) of others or about one or more other(s). Examples of statements are, "Whoever dies with the most toys, wins," and "Happiness is Being Pakistani." A question about the state of being of a group is, "What's a Pythian?"

Being-Abstract (6) messages refer to a thought, opinion, or state of being associated with a non-personal entity (place, object, idea). An opinion about a place is, "It's better in the Bahamas," and one about an idea is, "It's OK not to drink." More general

comments about abstract states of being are, "Easy does it," and "One day at a time."

Feeling-Self (7) messages express a personal feeling or emotion. An example is, "I love my wife."

Feeling-Collective (8) messages express a feeling or emotion associated with a collective (group) of others. An example is, "Cambridge athletes: You gotta love 'em."

Feeling-Abstract (9) messages express a feeling or emotion associated with a non-personal entity (place, object, idea). An example is, "Vermont is for lovers."

Metonymic-Self (10) messages represent a name associated with the self. One group of messages are stickers such as "Big Mama" or "Proud Grandma." Proper nouns (as opposed to common nouns) are seen in stickers such as "Wendy's Wheels" or "Cindy's Car."

Metonymic-Collective (11) messages represent a name of a group. Examples are "National Rifle Association," "American Association of Retired Persons," and "Patrolmen's Benevolent Association."

Metonymic-Abstract (12) messages represent a name of a non-personal entity. Examples in the travel category (place) are "Howe Caverns" and "Niagara Falls."

Other (13) is a miscellaneous category needed to include exceptions, for while the matrix covers most forms of expression, there are certain unclassifiable types. One is the split-category type, which is unclassifiable because the message presents a statement that falls equally well into two categories. An example is, "I'm pro-choice, and I vote." Here, the first statement ("I'm pro choice") is Being-Self, while the second ("I vote") is Doing-Self. Another unclassifiable type is the ambiguous message, one in which the meaning is open to variant interpretations or is uninterpretable. Insofar as some group of stickers may not readily fit into the twelve-box matrix, the "other" category is needed.

An example of a message with more than one interpretation is "Chocaholic on board." While the message is one of being -- (the implicit verb is "is" and the statement in full would read, "chocaholic is on board), it is not clear whether the referent is the self or someone else. A question exists as to whether we should interpret such a message as a variation of the original being-collective message -- "baby on board" -- or whether we should interpret it as a departure from the original that has mutated into a being-self (3) comment.

FOCUS AND VALENCE OF MESSAGE

The focus of sticker messages and their valence provide further insights into meaning, ones accessible to content analysis. On the basis of domains sorting (see above), nine areas of interest were identified:

- 1: Hobby/Sport/Lifestyle
- 2: Consumption/Product/Service
- 3: Professional/Occupational
- 4: Gender/Family/Sexuality
- 5: Institutional Affiliation
- 6: Political/Environmental/Patriotic

- 7: Experiential/Tourism
- 8: Theological/Spiritual
- 9: Ability/Attribute (Physical, Intellectual)

Additionally, valence or strength of expression was categorized as "neutral," "positive," or "negative."

FUTURE RESEARCH ISSUES

There are four areas planned for future research on car ornamentation and meanings:

- Existential-phenomenological exploration of vehicle/message meanings by means of personal interviews with car owners
- Semiotic analysis of non-verbal symbols to study verbal/visual message interaction
- Quantitative analysis of correlations between message, car, and driver characteristics
- Literary analysis of message content in terms of other dimensions such as humor, sexual content, and word-play

Existential-phenomenological Exploration (E-P)

Since the *gestalt* meaning of a car includes both the vehicle itself and all of the ornamentation, we suggest that the E-P interview (Thompson, Locander, and Pollio 1989) can be used to explore these meanings. These interviews allow respondents to reveal attitudes about all of the aspects of their cars to an interviewer who has been trained to elicit information. When this interview technique was used in prior research on women's attitudes toward shopping, consumption themes emerged that would not otherwise have been obtainable by more structured survey or focus group methods. Insofar as cars express magic/totemic and mnemonic qualities with deep subjective meanings, E-P interviews with owners seem to be a promising way of uncovering these meanings.

Semiotic Analysis of Non-Verbal Objects

We recall that in addition to stickers, car ornamentation also includes objects such as fuzzy dice and visuals such as pictorial ornaments. For this reason, semiotic analysis of iconic, indexical, and symbolic meanings can augment analysis of the verbal messages. One question is the relationship of verbal to non-verbal ornaments in terms of consistency -- are the messages redundant, or are they inconsistent?

Quantitative Analysis of Relationships Between Message, Car, and Driver

The question of message consistency raises the issue of more general relationships between types of messages and car attributes. In this regard, the correspondence of visual and/or verbal ornamentation to car types and driver characteristics needs study. Here, demographic variables such as age, gender, and subculture, and psychographic ones such as self-confidence, role-completeness, and role-stress can be investigated.

Literary Analysis of Messages: Sex and Humor

Many of the bumper stickers are humorous, using word-play such as puns and irony (Stern 1990) to structure the messages. The concept of a car as an outlet for humor requires further research, especially in view of the sexual nature of much of this humor. The sexual expressiveness of messages such as "Sewer diggers do it deeper" ties in with the importance of a car as a sex symbol, but what is interesting here is that the bumper stickers are almost always humorous comments on sex rather than serious ones. Social acceptability may be at work here, in that stickers may represent a way to make a sexual statement in ironic or self-deprecating terms in order to avoid censure. A related matter for future investigation is the tendency of men versus women to make humorous and/or sexually provocative self-statements. Gender differences can be hypothesized on the basis of Lakoff's (1975) analysis of women's tendencies to avoid obscenity and slang expressions as "unladylike." To conclude, the importance of the automobile as one of the most significant material objects in popular culture may better be understood by extending consideration of the vehicle to include that of its owner-attached ornaments. The view of a car as a canvas upon which the consumer can create meaning allows for examination of the extended self by various means -- verbal and pictorial as well as product choice -- to provide a rounded picture of the relationship between vehicles and consumer culture.

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Volkswagen as "Little Man" Extended Abstract

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The presentation attempted to explain the origins of the Volkswagen Beetle advertising campaign from both literary and cultural perspectives. It used David Ogilvy's observation that the campaign appeared to have been "created . . . out of air" as an informal null hypothesis against which to demonstrate that advertisements (like art and literature) are influenced by other works of art and literature and the broader cultural context in which they are created (Fox 1984, p. 255).

The analytical framework for the study presented is an integration of interpretative approaches borrowed from literary criticism, anthropological and cultural studies, and depth psychology that converge at the point where the role played by archetypal forms or structures reveals the primal origin of motifs in the arts that might otherwise (as was the case with the Beetle campaign) be considered entirely new. The various approaches tend to focus on the study of religious themes and motifs as the place where both literary and psychological structures will reveal themselves in their most abstract form devoid of confusion from representational or local content (Campbell 1949; Frye 1957; Jacobi 1959; Jung 1959; Levi-Strauss 1963). Similarly, this study tries to discover underlying cultural, literary, and psychological patterns that transcend the context in which the Volkswagen Beetle advertising campaign was created and connect it to more basic structures within these realms.

The purpose of the study, then, was to discover an archetypal structure within the Beetle campaign. The specific archetypal pattern studied was the characterization of the Beetle's personality as that which Welsford (1935) calls the "Fool," Jung (1959) labels the "Trickster", and contemporary scholars of comedy have termed the "Little Man" (Pogel 1987; Yates 1964).

Within this context, the presentation demonstrated that the literary and psychological persona created by William Bernbach and his fellow writers and artists for the Volkswagen Beetle can be found in the "Little Man" character of film, literature, comics and cartoons, and stand-up comedy routines. And, this brand persona and literary archetype has its twentieth-century origins in the works of creative personalities such as Woody Allen, Charlie Chaplin, Robert Benchley, S. J. Perelman, James Thurber, and E. B. White (Blair 1937, 1942; Blair and Hill 1978; Pogel 1987; Welsford 1935; Yates 1964). A modern cultural and historical context was provided that traces the little-man character back to the clown figure in the work of Shakespeare and its slightly earlier roots in the theater of the Italian Renaissance (Welsford 1935).

An analysis of 126 Volkswagen Beetle advertisements was presented in support of the thesis brought forth. Additionally, an in-depth literary critique was performed on eleven of these ads (which

VW of America calls the "philosophical ads") to illustrate how the characteristics of the little-man personality were projected onto the Volkswagen Beetle itself.

The author concluded that the use of the little-man character provides a fundamental purpose to the human psyche. He or she (i.e., the clown) is ultimately an emancipator of us all from "our slaveries" whether they be social or psychological (Welsford 1935, pp. 323-324). And, in the late 1950's such a slavery was America's love affair with the big, gas-guzzling automobile. But, the clown knows the truth because he or she is an outcast and can see the foolishness of society's ways clearly. And, it was through VW's little-man, self-deprecating character that Doyle Dane Bernbach showed us how foolish it was to own a large expensive car when for the same money you could own two Beetles plus a host of other items.

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Issues in Consumer Choice With Uncertain Product Outcomes

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In consumer choice, two fundamental kinds of uncertainty have been identified: uncertainty over the importance of attributes (e.g., is performance in a car more important to me than luxury) and uncertainty over product outcomes or the level of attributes (e.g., is gas mileage going to be as good as the EPA sticker claims). This paper focuses on uncertainty over product outcomes or risky choice, a topic that has been studied in other fields but that has received little attention in the consumer literature. In risky choice there are two emerging directions of research. One is normative, in that it focuses on how people should make decisions under ideal risky choice conditions in order to maximize their expected utility (Hauser and Urban 1978). The other is more descriptive, in that it focuses on how people actually do make decisions under ideal conditions, such as the work by Kahneman and Tversky (1979). Another descriptive area involves uncertain choice under less than ideal risky choice conditions such as ambiguous probabilities (Kahn and Sarin 1989; Hansen 1991) and is the area of concern in the present paper.

Under ideal conditions in uncertain choice, each choice alternative (e.g., a car) is described as having different possible outcomes or levels for the same attribute (e.g., time between auto repairs), each outcome with its own explicit probability. These ideal conditions describe what is known as a gamble (e.g., a 20% chance that the repair interval is only one month and an 80% chance that it is six months). Theories of risky choice maintain that individuals evaluate alternatives as if they are forming statistical expectations based on the probability-weighted outcomes of gambles which implies the use of a compensatory choice process. Gambles have become the decision theorist's "fruit fly", since gambles are assumed to be representative of the way people set up risky decisions and because they are easy to work with. However, there is a problem in using gambles to describe consumer choice, since in most consumer choice situations explicit well-defined probabilities rarely exist and are otherwise difficult to formulate (Kahneman, Slovic, and Tversky 1984). Furthermore, people may not even recognize that the variation in the attribute level is due to randomness, although they can identify variation and thus uncertainty in attribute levels (Hogarth 1987). Under the less than ideal conditions found in consumer settings, decisions based on expectations or probabilities may be quite difficult, inviting the use of decision shortcuts or heuristics (Payne 1982).

The main issue here concerns how consumers actually make decisions under uncertainty when probability is not explicitly given, cannot easily be formulated, and thus may be ignored or suppressed. Much of the descriptive research on how people make decisions under uncertainty has found that people are highly concerned with negative information or losses (Einhorn and Hogarth 1981). It has also been found that outcomes are segregated into losses and gains

relative to some neutral reference point and that losses loom larger than gains (Kahneman and Tversky 1979), that probability is often ignored (Einhorn and Hogarth 1981), and that most decisions are made using heuristics (Payne 1982). Because of this, it may be that in decisions without explicit probability consumers with little ability to formulate subjective probabilities use a choice heuristic that focuses on potential losses. By focusing on the worst possible loss of each alternative and minimizing losses, the alternative chosen should have the smallest potential loss of all alternatives. This choice strategy is non-compensatory in that it focuses only on losses as opposed to the compensatory nature of expectations which consider both losses and gains. Statistically naive consumers may actually use such a strategy to suppress uncertainty in the decision, if they do not know how to deal with it otherwise.

This leads us to ask whether individuals who are more experienced in uncertain choice deal with the lack of explicit probabilities differently than the naive consumers. Despite the ambiguity of the less than ideal conditions for consumers, it may be that individuals with statistical training look for ways to deal with the uncertainty rather than trying to suppress it. Hansen (1991) found that when sample statistics were used as choice data, the salience of the displayed data guided the use of a compensatory choice strategy by buyers and managers. Consumers who are not statistically naive may also use a more compensatory strategy in which potential gains and losses are considered, which can produce different decisions than those of the statistically naive consumers. Such a strategy does not make the implicit assumption of the naive consumer that only a loss will occur, since weight is given to both losses and gains. The issue this raises is what difference between naive and experienced consumers could explain the use of such different strategies. One reason may simply be that the trained consumers are able to recognize the existence of randomness and formulate subjective probabilities to help make the decision.

The implication of these proposals, if empirically supported, is that when statistically naive consumers make decisions under uncertainty, they may not be using the same decision formulation or choice strategy assumed by the decision theorist. That is, they may not formulate the decision problem as a gamble, let alone solve it via expectations. They may be using simple choice strategies which focus only on losses, unlike less naive decision makers who may try to use more of the outcome distribution (i.e., losses and gains). This coincides with the notion that the naive consumers may not be using concepts related to probability, either due to lack of recognition of the need to use them or lack of ability to use them. In effect their choice strategy may be a way to suppress uncertainty. It may also be construed as "certaintizing" the decision and is similar to Kahneman and Tversky's observation that very high

or low probabilities are changed to certainties--the certainty effect (1979). However, whether such a choice strategy is used merely to simplify the decision or because naive consumers are unable to recognize randomness or formulate subjective likelihoods is another issue in need of empirical research.

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Decision Making Under Risk: Applications to Insurance Purchasing

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ABSTRACT

The purpose of this paper is to provide an overview of psychological research on decision making under risk, with an emphasis on insurance behavior. This research approach has supplied many insights into how humans react to risk and uncertainty. These insights may help explain why people buy insurance in some circumstances and not others. For instance, decision research has shown that humans:

- have limited cognitive capacity to process low probabilities,
- focus more on loss probability than the magnitude of loss,
- are risk averse for gains but risk seeking for losses,
- misperceive randomness of runs -- the "gambler's fallacy,"
- seek an optimal level of risk, i.e., "risk homeostasis,"
- show wide individual differences in risky decision making,
- are resistant to changing attitudes and beliefs about risks,
- exaggerate their decision making ability -- overconfidence,
- are influenced by subtle shifts in problem wording, and
- cannot conceptualize losses they haven't experienced.

To examine these findings, a small pilot study was conducted which investigated decisions about flood and drought insurance. These and other results imply: (1) expected utility is inadequate to describe insurance decisions, (2) the monetary value of insurance has little relevance to purchasing, (3) insurance is viewed as an investment, instead of protection, (4) people want to "trade dollars" with insurance companies, and (5) there is a risk threshold, which limits desire to buy insurance.

This paper is intended to provide an introduction to research on risky decision making and how it relates to insurance buying behavior. The focus will be on using insights about decisions under uncertainty to account for willingness to purchase insurance.

BACKGROUND

Behavioral decision research began in the 1950's with analyses of how people make choices between gambles (Edwards, 1954). In the 1960's, the emphasis was on investigating probability revision and probability learning (Slovic and Lichtenstein, 1971). The decade of the 1970's produced research on risk heuristics (mental rules of thumb) and biases (Kahneman, Slovic, and Tversky, 1982). The 1980's has seen analyses of framing (context) effects and

comparisons between experts and novices (Shanteau, 1987).

Today, the field of judgment and decision making, or behavioral decision analysis, is rapidly expanding. The Society for Research on Judgment/Decision Making has over 900 members worldwide. There are two journals devoted to the area: *Organizational Behavior and Human Decision Processes* and *Journal of Behavioral Decision Making*, with many other periodicals publishing relevant material. Numerous books have appeared at all levels, ranging from introductory (e.g., Huber, 1980) to intermediate (e.g., Hogarth, 1987) and advanced (Arkes and Hammond, 1986). Although initially dominated by psychologists, decision researchers now represent a variety of disciplines including management, engineering, statistics, political science, medicine, economics, geography, law, and accounting.

This paper is concerned with describing how the findings from decision research can be applied to explain insurance behavior. The description will be divided into four parts. First, some general principles of risk behavior will be outlined. Second, specific findings will be described from a pilot study of decisions about flood and drought insurance. Third, the implications of these and other results for insurance behavior will be discussed. Lastly, the paper ends with some suggestions for the application of behavioral concepts to insurance decision making.

PRINCIPLES OF RISK BEHAVIOR

As noted by Slovic (1984, p. 4), "it is extremely hard (for people) to think about...uncertainty, probability, and risk." Indeed, repeated demonstrations have shown that most people lack an adequate understanding of probability and risk concepts (e.g., Kahneman and Tversky, 1984). A number of principles have been uncovered which describe how people think about probability and risk. A few of these will be described here.

Misperception of Small Probabilities.

Obviously, people can only respond to the risks they perceive. "If their perceptions are faulty, efforts at personal, public, and environmental protection are likely to be misdirected" (Slovic, Fischhoff, and Lichtenstein, 1982, p. 463). One persistently reported misperception is an inability to react logically to low-probability events (Anderson, 1974). People either ignore low probabilities or are unable to make rational decisions involving low probabilities (Schoemaker, 1980).

In part, this misperception arises from a limited capacity people have for processing risk information. Simon's (1957) concept of "bounded rationality" contends that cognitive limitations force people to construct simplified models of the world. According to Simon (1957, p. 198), the decision maker a "behaves rationally with respect to this

model, (but) such behavior is not even approximately optimal with respect to the real world." Thus, people's limited processing capacity restricts attention for rare events.

Focus on Probability of Loss.

People don't like to lose money. This aversion to losing, however, seems focused more on the probability than the amount of loss: "It is not the magnitude of a potential loss that inspires people to buy insurance voluntarily -- it is the frequency with which a loss is likely to occur" (Kunreuther, 1979, p. 2). The criminologist Sir Robert Mark (1976) makes a similar argument, the "best deterrent to...crime is not so much the severity of punishment as the likelihood of being caught."

Focusing on the likelihood of losing, of course, can lead to irrational behavior. In studies of choice behavior, for instance, subjects preferred unfavorable gambles to accepting a sure loss (Hershey and Schoemaker, 1980). Other studies have reported that people choose a sure gain over a gamble, but reverse their preference when the same options are presented as losses. In short, attention is "captured" by the loss probability.

Risk Aversion vs Risk Seeking.

It is commonly assumed a person's propensity to seek or avoid risk is consistent over gains and losses. A risk-averse individual, for instance, would presumably avoid risk of any type. Empirical evidence, however, suggests that most people are risk averse for gains and risk seeking for losses (Kahneman and Tversky, 1979).

"People are often risk seeking when it comes to losses; they are willing to chance a loss even when they can insure against it....Many even decline to buy government-subsidized insurance in which the premiums are so low that buyers are effectively in a 'can't lose' position" (Schwartz and Griffin, 1986, p. 141). This tendency reflects the distaste people have for sure losses.

Gambler's Fallacy.

Many people have a strong, but false, belief that random events are self-correcting. If a couple has a series of girls, then a boy is viewed as likelier (Anderson, et al., 1981). A common example is the belief that a previously hitless batter is somehow "due" to get a hit in a baseball game.

The inability to appreciate the independence of random events also shows up in low probability situations (Hogarth, 1987). If an unlikely event occurs once, people believe that it is less likely to occur again -- "lightning can't strike twice." Thus, the perceived likelihood of future events changes because of prior outcomes.

Risk Homeostasis.

A general principle of behavior is that people want to remain at equilibrium levels, e.g., of motivation. This concept of homeostasis has been extended by Slovic (1984) to risk settings: There is "an optimal level of risk that people are comfortable

in accepting (p. 9)." Efforts to decrease risk, therefore, may be met by riskier behavior.

One example relates to farm machinery. When improved design made tractors more stable, farmers used them on steeper slopes and the accident rate remained constant. This suggests that risk-reduction measures may be offset by riskier subsequent behavior (Slovic, 1984).

Individual Differences.

A common finding is the presence of widespread individual differences in how people respond to risky situations (Slovic and Lichtenstein, 1971). Johnson, et al. (1961) studied over 1,000 midwestern farmers and found a relationship between willingness to accept risk and the types of farm crops grown. High risk takers were in cash crops and stock feeding; those intermediate in accepting risk were in dairy and tobacco farming; the least risk takers were in general farming.

Such behavior can be self-limiting, since unwillingness to accept risks can keep farmers from engaging in more profitable efforts. As Kunreuther and Wright (1979) note, those who practice "safety-first farming" may be trapped by their own risk aversion.

Resistance to Change.

Perceptions of risk are quite stable and resistant to change. Reliance on "personal experience may promote a false sense of security....People's beliefs often change slowly and show extraordinary persistence in the face of contrary evidence" (Slovic, et al. 1982, p. 478).

One of the difficulties is that we seldom receive feedback about the appropriateness, or inappropriateness, of our perceptions of risk. Consequently, people have a tendency to deceive themselves about how well they can handle risk. Through hindsight, for instance, we can "post-dict" almost any outcome (Fischhoff, 1975).

Overconfidence.

Humans often operate under what has been labeled a "certainty illusion" -- a belief in their own infallibility (Fischhoff, et al., 1977). "Even when people are wrong...they are tremendously confident in their opinions....People generally tend to underestimate their own vulnerability to certain sorts of risks" (Slovic, 1984, p. 5).

A related phenomenon is that we tend to view ourselves as invulnerable to hazards (Kunreuther and Slovic, 1978). Most believe they are better than average drivers, more likely to live past 80, and less likely to be harmed by consumer products (Slovic, et al., 1982). Given such expectations, it shouldn't be surprising that many people refuse to take personal actions to reduce risk.

Context Effects.

Psychologists have long been aware of the prevalence of context effects in judgments. One class of such effects has been labeled "framing" by Kahneman and Tversky (1984). They found that

people respond more positively to losses labeled as "cost of protection" than as "uncompensated losses."

Researchers have reported that slight shifts in problem wording can have a pronounced effect on choice behavior: "Subtle differences in how risks are presented can have marked effects on how they are perceived" (Slovic, et al., 1982, p. 483). That means context effects can be used to change (i.e., manipulate) risk perceptions.

Inability to Conceptualize Losses.

A major limitation to our capacity react to low-probability risks is the inability to imagine hazards which have not occurred. "Men on flood plains appear to be very much prisoners of their experience" (Kates, 1962, p. 140). Much of the difficulty in improving flood planning can be attributed to the "inability of individuals to conceptualize floods that have never occurred" (p. 92).

People are influenced, often inappropriately, by prior events (Arkes and Blumer, 1985; Shanteau and Harrison, 1991). They "are strongly conditioned by their immediate past and limit their extrapolation to simplified constructs, seeing the future as a mirror of that past" (Kates, 1962, p. 88).

A PILOT STUDY OF INSURANCE DECISION MAKING

To examine the applicability of some of these concepts, I conducted a small pilot study on hazard risk perception and insurance decision making.

Methods.

A group of 48 undergraduates were told that "a major disastrous event has occurred in the past year." They were asked to judge the likelihood of recurrence in the coming year and to indicate whether they would be willing to pay more for insurance.

Four events were described: drought, natural flood, car theft, and man-caused flood; the former two hazards are "acts of nature" and the latter two are "man-made." The probability for each was described as alternately "1-in-20" years or "1-in-100" years.

Results.

There were four findings of interest: First for natural hazards, there was a uniform trend to estimate the chances of a recurrence as less likely in the coming year. Thus, 75% of the subjects said that a 1 in 100 year drought is less likely to occur again in the coming year. This suggests a belief in the gambler's fallacy -- people believe it improbable that an unlikely event will recur.

Second, the preceding effect is roughly 20% less in the 1-in-20 year condition than in the 1-in-100 condition. For example, 55% of subjects said that a 1 in 20 year drought is less likely in the coming year. The shift, therefore, appears to be more pronounced with lower probabilities.

Third, natural hazards led to about a 10% greater effect than man-made hazards. 83% of subjects said that a 1-in-100 year natural flood is less likely to recur, whereas 73% said that 1-in-100 man-caused flood would recur in the coming year. This suggests a

context effect, by which natural events are viewed differently than man-caused events.

Lastly, the amount of insurance subjects were willing to buy changed little across conditions. Roughly two-thirds of subjects were willing to pay the same premium as before, despite being told they had a major loss. Apparently, their beliefs about insurance rates are unaffected by events in the preceding year.

Discussion.

In all, these findings show that people tend to feel that once a low-probability event happens, they are "inoculated" against a repetition in the coming year. Such an inoculation effect would make it difficult to convince people of the need to reduce risks by buying insurance. This may explain why many residents in flood-prone areas are willing to move back, without insurance, following a major flood (Kunreuther, et al., 1978).

OBSERVATIONS

Let me now offer some comments about insurance-buying behavior. First, it is clear that economic theory is not adequate to account for insurance behavior (Pashigian, Schkade, and Menefee, 1966). "Utility maximization is neither a necessary nor a sufficient condition for deducing who will buy insurance" (Simon, 1987, P. 32). As an alternative, Simon argues "if we wish to understand the insurance-buying behavior, then we must determine... the circumstances that attract the attention of a property owner" (also see Hogarth and Kunreuther, 1985; Kunreuther, 1983).

Second, the monetary value of insurance appears to play little role in whether consumers purchase it. Eisner and Strotz (1961) observed that flight insurance is less attractive economically than life insurance, yet consumers have a stronger desire for the former than the latter. Apparently, the relationship between expected return and premium is unimportant for many insurance decisions (Simon, 1987).

Third, people tend to view insurance as an investment, rather than as protection. A policy is viewed "as an investment aimed at maximizing claim payments in case the hazard should occur" (Schoemaker, 1980, p. 79). Because low-probability events are unlikely to happen, there is in fact little chance of getting a payback. Hence, most people prefer to insure against higher-probability, low-loss hazards (Kunreuther and Slovic, 1978).

Fourth, by viewing insurance as an investment, consumers want to see some return on their premiums. This leads to a desire to "trade dollars with the insurance company even though it is very costly" (Slovic, 1984). Thus, people appear to have distorted ideas about the function of insurance.

Finally, there appears to be a risk threshold, below which people ignore the threat of a loss (Slovic, Fischhoff, and Lichtenstein, 1977). When very low probabilities are involved, the premium amount is viewed as irrelevant. That means people illogically will buy insurance against common hazards

and avoid policies for unlikely catastrophic events (Hogarth, 1987).

CONCLUSIONS

I have three final thoughts: (1) It is likely that efforts to increase protection of the public paradoxically may have the opposite effect. By eliminating minor losses, e.g., resulting from floods, people are denied an opportunity to experience their own vulnerability. Successes in civil engineering are therefore limited by failures in social engineering (Burton, et al., 1978).

(2) By working together, decision researchers and consumer researchers may be able to offer new understandings of insurance behavior (Kunreuther and Slovic, 1978). Although the two disciplines of psychology and marketing often failed to communicate in the past, there is some evidence of breaking down the barriers.

(3) Despite the problems people have in coping with risk, humans are capable of adapting and improving their decision making (Clark, 1977). One suggestion by Kunreuther (1979) is to lengthen the time horizon for risk communication -- a 1 in 100 year flood becomes a "more than 5 to 1 chance of flood damage in 25 years." To get around beliefs in the gambler's fallacy, my suggestion is to educate people about the potential for hazards to repeat themselves -- lightning can strike twice. Finally, policy makers should make a greater effort to understand how consumers think and react to risk and uncertainty.

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The Time and Outcome Valuation Model: Implications for Understanding Reactance and Risky Choices in Consumer Decision Making

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ABSTRACT

The time and outcome valuation (TOV) model (Mowen and Mowen 1991) was described and used as a metatheory to account for the effects of reactance and risk perception on consumers. A key assumption of the model, that negative outcomes are discounted more rapidly than positive outcomes over time, was successfully tested within the context of individuals making choices between risky or conservative bets. Implications of the model for understanding consumer decision making and for future research are identified.

INTRODUCTION

Consumer decision making occurs within a world filled with risk and uncertainty. Researchers generally regard risk perception in terms of an expectancy-valuation model that is based upon two factors: (a) the likelihood that a bad outcome could occur and (b) the degree of negativity of the outcome should it occur (Dowling 1986). Thus, risk perception can be conceptualized as based upon the integration of a probability estimate and a valuation of an outcome in order to form an overall evaluation of risk.

Researchers have begun to investigate risk perception by analyzing separately the factors that influence the estimation of probabilities and the valuation of outcomes (e.g., Kahneman and Tversky 1979). Valuation occurs when an individual assesses the extent of the goodness or badness of a possible or actual outcome, event, or thing. The concept of valuation is central to many mid-range theories used to describe consumer behavior. For example, valuation is a critical element of the many expectancy-value models employed by researchers to describe various consumer processes. In such models the overall evaluation of a course of action is predicted by multiplying the likelihood of each of the various outcomes occurring by the value of each outcome should it occur and then summing across the outcomes. From the compensatory models of choice and attitude formation (e.g., Fishbein and Ajzen 1975), to models of risk perception (Bauer 1960), to subjective expected utility models (e.g., prospect theory, Kahneman and Tversky 1979), one finds valuation as a central element.

Mowen and Mowen (1991) developed a model, that focuses on the role of time on outcome valuation. Called the time and outcome valuation model (the TOV), it proposes that the distance in time between when a decision is made and when potential positive or negative outcomes occur systematically influences the perception of the goodness/badness of the outcomes. Derived from approach-avoidance conflict theory (Miller 1959), prospect theory (Kahneman and Tversky 1979), and discounted utility theory, the TOV acts as a metatheory, which proposes that a family of "time and outcome valuation" phenomena exist. Some of these phenomena include: risk aversion in the present, future optimism, individual traps and fences,

speed-up costs, and delay charge effects. See Mowen and Mowen (1991) for a description of these phenomena.

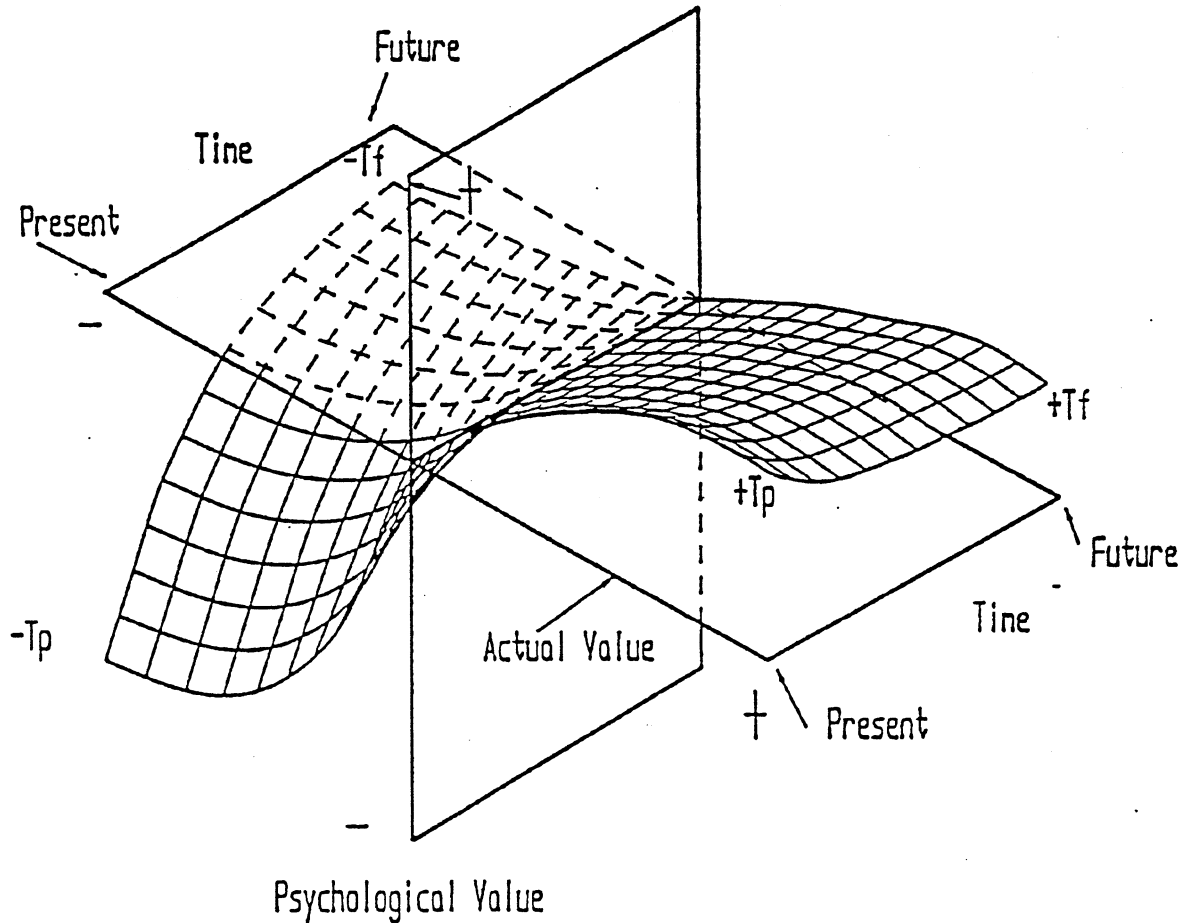
The TOV proposes that depending upon situational circumstances, losses and gains can occur at different points in time relative to when a decision is made. Based upon when in time the losses or gains occur relative to the decision point, divergent decision biases may result. For example, when situational circumstances cause the negative outcomes of a decision to occur in the present and the positive outcomes of a decision to occur in the future, the individual fence (Platt 1973) is predicted to occur. An investment decision is a case in which an individual fence would impact consumer decision making. In an investment decision, the money or time required to make the investment is taken from the consumer's expendable income in the present causing a short-term loss. Only in the long-term will the benefits of the investment be felt. Because losses are overvalued in the present and the future gains are discounted, consumers will have a strong tendency *not* to make long-term investments unless the positive benefits in the long-run are extremely salient.

The TOV model is based upon a series of assumptions, which are summarized below. (See Mowen and Mowen, 1991, for the empirical basis for these assumptions.)

- A1. The psychological reaction to outcomes is described by the decreasing marginal valuation of gains and losses.
- A2. For outcomes that occur in the present, losses are valued relatively more heavily than gains.
- A3. The net valuation of a prospect results from the difference in the valuation of gains and losses.
- A4. Outcomes are discounted in time with losses discounted faster than gains.
- A5. Time and outcome framing exist. The loss or postponement of a gain is framed as a loss. The avoidance or postponement of a loss is framed as a gain.
- A6. Gains and losses may occur at different points in time.

The present paper has three purposes. First, it presents a method of graphing the model in a manner that allows for the derivation of decision phenomena from the TOV. Second, the paper extends the TOV model to account for reactance in consumer settings. Third, the paper presents an empirical study testing a critical assumption of the TOV, that gains are discounted more rapidly than losses.

FIGURE 1
The TOV Model

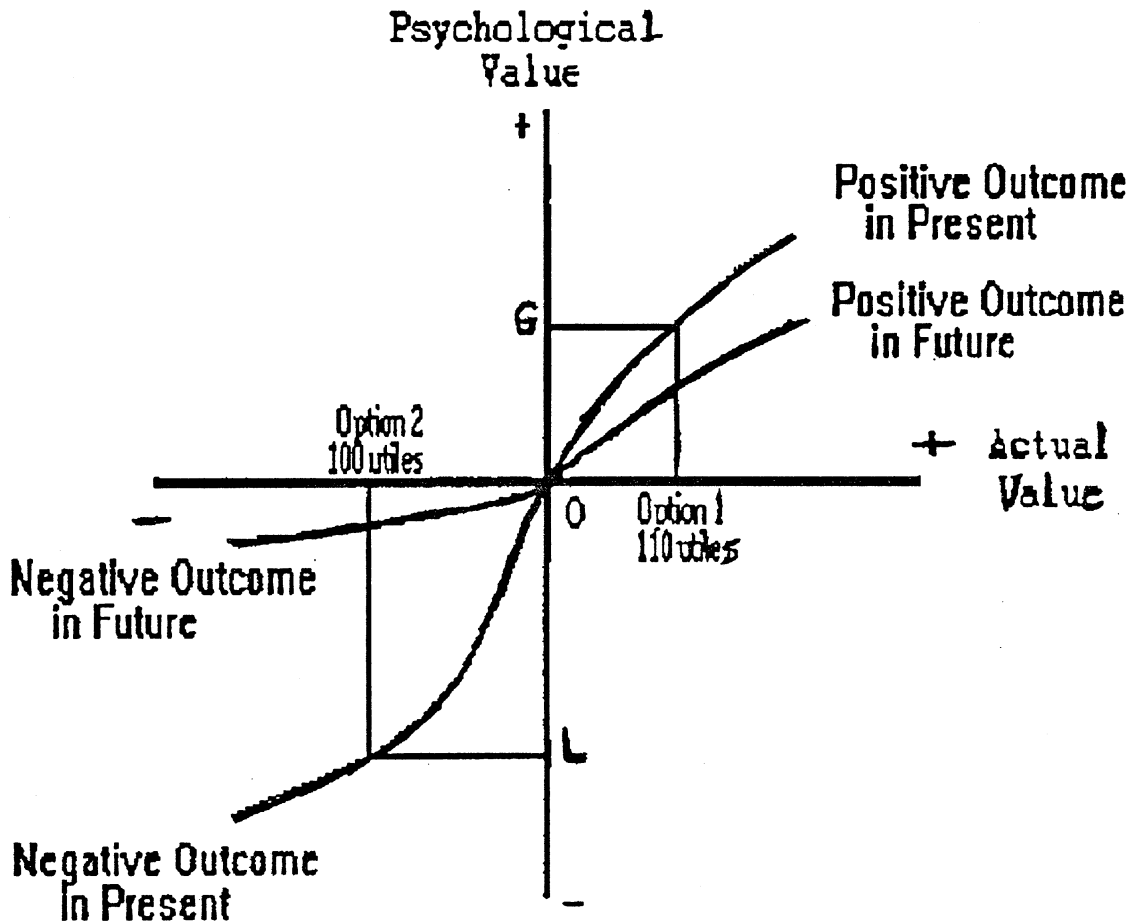


A GRAPHICAL REPRESENTATION OF THE TOV

Figure 1 presents the graphical representation of the TOV found in Mowen and Mowen (1991). In the three dimensional figure, the x axis represents the actual value of a stimulus and the y axis the psychological value of the stimulus. These axes correspond to those found in prospect theory. The third axis depicts time moving from the present to the future. In the present, the curves match those found in prospect theory resulting in a heavier weighting of losses than gains. Thus, when equivalent gains and

losses occur in the present, risk aversion is predicted to occur. However, as time passes, gains and losses are discounted so that the planes begin to approach the x axis. Because losses are discounted more rapidly than gains, the loss plane more rapidly approaches the x axis. As a result of the differential discounting of gains and losses, gains are weighted more heavily than losses when they occur far into the future. Thus, when evaluations occur long prior to the outcomes occurring, the psychological value of a gain may be greater than the psychological value of a loss of the

FIGURE 2
Two-Dimensional Representation of the TOV Model and the Derivation of Psychological Reactance



Note: Reactance may occur in a situation in which a buyer must choose between two alternative brands. In the example, Option 1 is chosen because it has more value--+110 utiles, as compared to +100 utiles. After the choice, however, Option 2 is foregone and its +100 utiles are lost. Because losses are weighted more heavily than gains in the present, the person experiences negative affect (i.e., line segment O-L is longer than O-G) resulting in a reactance state.

same amount. Mowen and Mowen (1991) called this effect "future optimism."

A problem with the representation of the TOV shown in Figure 1 is that it is relatively difficult to depict the changes in valuation that occur as gains and losses occur at different points in time relative to when the decision is made. Figure 2 portrays in 2-dimensional space the same relationships found in Figure 1. The curve labeled "Outcome in Present" is the classic prospect theory curve of Kahneman and Tversky (1979). The curve labeled "Outcome in Future" is the curve that results for the valuation of

gains and losses when they occur far into the future (e.g., several years away). Note that the differential discounting of gains and losses results in the curve for future value being steeper in the gain domain than in the loss domain. As a result, the overweighting of losses that occurs in the present has been replaced by an overweighting of gains that occur in the future.

Figure 2 can now be used to depict visually the phenomena that can be derived from the TOV. The next section discusses how the phenomenon of reactance can be derived by using Figure 2.

Reactance Theory

Brehm (1969) in his development of reactance theory suggested that people have a need to maintain their behavioral freedom. If their behavioral freedom is violated, they will react against the threat in order to restore that freedom. Thus, if an option or possession is taken from them, a negative affective state is created, and they will reevaluate it so that it becomes relatively more attractive. Clee and Wicklund (1980) identified a number of situations in which reactance theory has implications for consumer behavior.

Reactance theory can be used to explain post-decisional regret (Walster 1964). Post-decisional regret occurs when, after making a choice between two positively valued alternatives, individuals may experience displeasure and reevaluate the alternatives such that the unchosen option is liked more than the chosen alternative. The TOV proposes that the regret is caused by a reactance state in which the buyer gives up all of the positive attributes of the unchosen alternative (i.e., he loses the freedom to obtain these positive qualities) while they accept all of the negatives of the chosen alternative. Mowen (1990) has suggested that what researchers call cognitive dissonance (i.e., the discomfort that may occur after a purchase) results from the cognitive imbalance that occurs from reactance causing the unchosen alternative to be valued more than the chosen alternative.

The TOV proposes that the negative feelings that occur in a reactance state result from the high weighting of losses taken in the present. That is, the loss of behavioral freedom to possess the desired attributes of the unchosen alternative is tantamount to the loss of any resource. According to Assumption 5 of the TOV, the loss of a positive outcome in the present will be framed in the loss domain and will create highly negative feelings.

The effect is diagrammed in Figure 2. Let us assume that Option 1 (the chosen option) is rated originally as having +110 utiles and Option 2 (the unchosen option) as having +100 utiles. Thus, both options are viewed positively, but option 1 was chosen because the overall preference for it was higher. Once the person has been committed to the choice, however, the unchosen option is now framed as a loss of 100 utiles. When the loss is extended down to the curve that represents its psychological value in the present, one finds that the line segment O-L results. Now, consider the chosen alternative--Option 1. When the gain is extended up to obtain its psychological value, one finds that the line segment O-G results. Because of the greater valuation of losses than gains in the present, line segment O-L is longer than O-G. That is, the negative feelings resulting from the loss are stronger than the positive feelings resulting from the gain. As a result, the buyer experiences the overall negative affective state called reactance.

Linder and Crane (1970) performed a study that supports the TOV explanation of reactance theory. These authors asked subjects to rate the attractiveness of two people either of which could interview them for a job. The attractiveness was rated at different points

in time prior to when a final choice had to be made. Linder and Crane (1970) predicted that reactance forces would tend to make the attractiveness of the choices converge as the time approached to make the choice. The results supported the prediction. That is, as the time for the final choice grew closer, the subjects increasingly rated the interviewees as similar in attractiveness.

The TOV accounts for the results of the Linder and Crane (1970) study by virtue of the discounting function for gains and losses. That is, as the outcome draws closer, the effects of gains and losses have increasing psychological value with the losses growing more rapidly. Because the inferior (but still positively evaluated option) is the one that the person is considering for elimination, the loss of its positive elements loom large. As a result, it will tend to increase in attractiveness, because of its potential loss. Thus, the TOV model predicts that the attractiveness of the two options will tend to converge.

In sum, the TOV model accounts nicely for the effects of reactance under the same rubric that handles a variety of other mid-range theories. A critical issue for the model, however, concerns the evidence for Assumption 4, that the discount rates for gains and losses diverge.

On the Differential Discounting of Gains and Losses

A key assumption in the TOV is that the discount rate is greater for losses than gains. Both Wright and Weitz (1977) and Jones and Johnson (1973) found indirect evidence that supports the assumption. In each study, the researchers found that people tended to make conservative decisions when outcomes occurred soon after the decision. This result is consistent with a greater weighting of the negative outcomes in the present. However, when outcomes were to be experienced further into the future (i.e., a week or more), riskier decisions were made. This result is consistent with the derivation that when gains and losses occur in the future, gains may be weighted more heavily than losses. As a result people move from a risk averse state in the present to a risk seeking state in the future.

The assumption that losses are discounted more rapidly than gains is controversial, however. Based upon the results of a carefully conducted study, Benzion, Rapoport and Yagil (1989) concluded that the discount rates "...are smaller for losses than for gains" (p. 282). In the Benzion et al. study, subjects gave an estimate of the amount of money that they would receive or pay in order to make them indifferent between a present and future outcome. For example, in the "postpone receipt" condition, the subjects might expect to receive \$1,000 right now. They would then indicate the amount of money that would make them indifferent between getting the \$1,000 now and getting \$X a year from now. Similarly, in the "postpone payment" condition, they might learn that they must pay \$1,000 now. They would then indicate how much they would pay a year from now that would make them indifferent between paying now or later.

Supporting the previous findings, Benzion et al. (1989) found that the discount rate for "postponing a receipt" was greater than the discount rate for "postponing a payment."

The question is, "Do these results provide evidence for the greater discounting of gains as Benzion et al. suggested?" Their conclusion was derived from the finding that postponing receipts has more psychological impact than postponing payments. Thus, the researchers equated postponing a receipt with a gain and postponing a payment with a loss. This author suggests, however, that in fact subjects frame these situations in a far different way. That is, in accordance with Assumption 5, subjects will frame postponing a receipt as equivalent to taking a loss. (That is, the individual is losing the current use of the money.) Conversely, the postponement of a payment will be framed as a gain. (That is, the individual is gaining the current use of the money.) By recognizing that individuals will frame postponing a receipt as a loss and postponing a payment as a gain, the study provides strong evidence for the assumption that losses are discounted more rapidly than gains.

THE EXPERIMENTS

Study 1: Method.

The goal of each study was to independently manipulate when the potential gains and losses from a decision would occur in time. In each study subjects were asked to rate, on an eight-point scale, their preference for which of two bets they would prefer to play. One bet was conservative with a high likelihood of winning a small amount of money. The other bet was risky with a low likelihood of winning a much larger amount of money. In each study they read:

"On the next several pages, you will find a series of pairs of bets. We would like you to examine each pair of bets and to rate your preference for which you would prefer to play. In the study imagine that you are at a wheel of fortune. Imagine that after you choose each bet, the wheel is spun; and, depending upon where it lands, you will either win or lose based upon the probabilities given in the problem.

Subjects were given a practice problem. They were then asked to look through the entire questionnaire. Any questions that they had were answered. The twenty-five subjects in the study participated either alone or with one other person. They were paid \$10 for participating.

Study 1 employed a 2x3x3x2 mixed, factorial design. The first three independent variables were taken as repeated measures. Thus, each subject made 18 choices. The fourth variable was a between subjects variable--the order of the presentation of the stimuli. One-half of the subjects answered eighteen, randomly ordered bets in forward order, and one-half answered them in reverse order. The independent variables were:

Factor A: Size of bet. *Low*--.80 to win \$5 and .20 to lose \$5 versus .20 to win \$35 and .80 to lose \$5. *High*--.80 to win \$60 and .20 to lose \$16 versus .80 to win \$246 and .20 to lose \$16.

Factor B: When gain occurs--immediately, 12 months, 48 months.

Factor C: When loss occurs--immediately, 12 months, 48 months.

Factor D: Order of receiving the 18 bets. The 18 bets were randomized and one-half of the subjects received them in forward and one-half in reverse order.

An example of a problem is shown below:

.80 to win \$5 in 6 months	1 2 3 4 5 6 7 8	.20 to win \$35 in 6 months
.20 to lose \$5 in 4 years		.80 to lose \$5 in 4 years

The bets on the left side were always the conservative ones, and expected values were held constant between the conservative and risky bets. A second example of a bet is shown below:

.80 to win \$60 in 4 years	1 2 3 4 5 6 7 8	.20 to win \$246 in 4 years
.20 to lose \$16 now		.80 to lose \$16 now

The second example shows the high priced bet. It also shows another combination of when gains and losses could occur. Note that the expected value of the risky bet in this condition was slightly lower (\$40.00) than the conservative bet (44.80.)

Hypotheses. It was hypothesized that preferences for the bets would shift in the following way.

- H1. A main effect for bet size would occur, such that higher cost bets would lead to greater preference for the conservative option.
- H2. As gains moved further away in time, preferences would shift towards the conservative bet.
- H3. As losses moved further away in time, preferences would shift towards the risky bet.
- H4. The shift in preferences across time would be greater for losses than for gains.

Results of Study 1

Supporting H1, the results revealed a significant effect for the size of the bet (F=38.6, p<.0001, mean small bet = 5.5, mean larger bet = 4.8.) Subjects preferred the risky option to a greater

extent when the bet was smaller. Hypothesis 2 was not supported. No effect was found for the manipulation of when gains occurred ($F < 1$). The results did support H3. As expected, when losses occurred further into the future, subjects increasingly preferred the riskier bet ($F = 51.5$, $p < .0001$, mean "now" = 4.4, mean 1 year = 5.3, mean 4 years = 5.7). H4 received indirect support from H2 and H3. That is, if no main effect was found for gains and a main effect was found for losses, then the discount rate for losses must be greater than that for gains.

In order to test H4 directly, the conditions in which gains and losses occurred at the same point in time (i.e., now, 1 year, 4 years) were compared. The means revealed a strong linear pattern in which increased preference for the risky alternative occurred as the outcomes moved farther into the future (mean now = 4.2, mean 1 year = 5.2, mean 4 years = 5.8.). (A priori F tests indicated that each mean was significantly different from the others.) This pattern of results could only occur if losses were discounted more rapidly than gains. In sum, the results strongly supported Assumption 4 of the TOV.

Study 2.

Study 2 replicated the first study while extending it in several respects. First, a sample of adults was obtained. Second, three different bet sizes were employed. Third, four levels of time when outcomes for gains and losses would occur were manipulated. Finally, subjects responded to all the bets twice so that the analysis could be performed on an individual subject basis.

Study 2 employed a $2 \times 3 \times 4 \times 4$ repeated measures, full factorial design. The independent variables were:

Factor A. Replicate in which subjects answered all questions twice.

Factor B. Three levels of bet: *low* = .80 to win \$5 and .20 to lose \$5 versus .20 to win \$35 and .80 to lose \$5; *medium* = .80 to win \$60 and .20 to lose \$16 versus .20 to win \$246 and .80 to lose \$16; and *high* = .80 to win \$3,000 and .20 to lose \$80 versus .20 to win \$12,240 and .80 to lose \$80.

Factor C. Four levels of when in time gains would be received--now, 6 months, 1 year, 2 years.

Factor D. Four levels of when in time losses would be received--now, 6 months, 1 year, 2 years.

The procedure was the same as in Study 1 except that questionnaires were delivered to 34 white collar professional workers in their offices at a university in the Mid-West. Subjects answered the two questionnaires approximately 1 week apart. As in the first study, subjects rated on an 8-point scale which of the two bets they would prefer to play. However, only

30 of the 34 subjects provided responses adequate for analysis.

Study 2 Results

In the first analysis, the replicate was ignored and an overall repeated measures, analysis of variance was run on the responses to the first set of questions. Supporting the results of the first study, main effects were found for the level of the bet ($F = 306.4$, $p < .0001$) and for the time when the loss would occur ($F = 26.4$, $p < .0001$). Means for the bet size variable were: small bet 5.7, medium bet, 4.7, and large bet 3.4). Thus, as the bet increased in size, subjects increasingly preferred the conservative option. Means for the loss variable were: now = 4.2, 6 months = 4.5, 1 year 4.7, and 2 years = 4.9. A priori F tests indicated that a significant difference occurred between each of the conditions except for between the 6 months and 1 year condition. No significant effects were found for the gain variable. These results are consistent with those found in Study 1. Thus, evidence was found for the greater discounting of losses than gains.

In the second study, the replicate was included in order to perform individual analysis on each of the subjects. Because not all subjects completed both questionnaires, the analysis could be run on only 21 of the subjects. The results revealed that for 20 of the 21 subjects the effect for the bet size was significant at $p < .10$ or less. Only 4 of the subjects revealed a significant main effect for the time when gains would be obtained. In contrast, in nine instances a significant effect was found for time when losses would be paid off. Inspection of the means for each of the subjects showed a consistent pattern in which losses were discounted as they occurred further away in time. In contrast, for those revealing a main effect for gains, in some cases discounting was found. In other cases, gains were viewed as *more* valuable when they occurred in the future. The inconsistent pattern of responses for gains explains why no overall main effect was found for gains when the analysis was performed over the group rather than over individuals.

DISCUSSION

The TOV acts as a metatheory that can account for a variety of phenomena that involve the valuation of outcomes at divergent points in time. Previously, Mowen and Mowen (1991) developed the TOV and applied it to individual traps and fences, risk aversion in the present, and future optimism, among other phenomena. This paper extends the model to account for the effects of reactance. From a TOV perspective, reactance can be viewed as occurring when a person believes that a potential gain is about to be or has just been lost. Because people frame the failure to obtain a gain as a loss, a negative affective state is created that has been labeled reactance.

The paper also examined the relationship of the TOV to consumer risk perception. The model suggests that all else equal, when outcomes occur close in time to when the decision is made, risk aversion results. Conversely, the TOV predicts that, all else equal, when outcomes occur far away in time from when the decision is made, increased risk seeking behavior

results. The results of the two experiments supported this prediction.

The results of Study 2 also revealed large individual differences in the subjects' choice of risky and conservative bets when the outcomes occurred at divergent points in time. When aggregated across individuals, the higher discounting of losses than gains is found. At an individual level, most subjects revealed the expected heavy discounting of losses. However, in some instances subjects discounted gains more. Some subjects even exhibited a tendency to inflate gains across time. Like most behavioral theories, the TOV is a model of "everyperson." Not all individuals will reveal the differential discounting of gains and losses predicted by the model. One avenue for future research is to investigate individual differences in the discounting of gains and losses. Potentially, a scale could be developed that would be effective in predicting the discounting tendencies of individuals. For example, those who are willing to make long term investments should exhibit a tendency to discount losses more quickly than gains. In contrast, those who fall for "get rich quick" schemes may be people who overweight gains in the present and then discount them very quickly when they occur in the future. Similarly, those who engage in compulsive consumption (Faber, O'Guinn, and Krych, 1987) may also reveal a pattern in which they overweight gains and underweight losses in the present.

An important question concerns identifying the mechanism that causes the differential weighting of gains and losses. Is it a memory phenomena? Is it "wired" into our affective response system? Does it relate to a differential ability to imagine the feelings obtained from positive or negative outcomes. These ideas suggest that future research should investigate the differential ability of people to recall positive or negative events from their past. It also suggests the possibility that mood states (Gardner 1985) may influence the impact of time on outcome valuation. Perhaps when people are in a good mood, they discount losses more rapidly. Conversely, when people are in a bad mood, perhaps they discount positive outcomes more rapidly.

If the author is right and individuals differentially discount gains and losses, why would this be the case? I would like to suggest the possibility that it would be advantageous from an evolutionary perspective to have such a valuation process wired into our biological system. The overweighting of negatives in the present and underweighting of negative future outcomes creates an impetus to change and to progress. Further, it would seem that creating a mechanism to cause future optimism would improve our outlook on life. While the model predicts that, all else equal, people are somewhat dissatisfied with their present state of affairs, it also suggests hope for the future. As a result, people may have a "wired-in" tendency to take actions to create a better future.

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Knowledge and Knowledge of Knowledge: What We Know, What We Think We Know, and Why The Difference Makes a Difference

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ABSTRACT

This paper is a summary of a special session titled, "Knowledge and Knowledge of Knowledge: What We Know, What We Think We Know, and Why the Difference Makes a Difference." The papers presented in the session focus on the constructs of knowledge, self assessments of knowledge, and over and underconfidence. The papers provide empirical results which shed light on these constructs, their interrelationships, and antecedents and consequences of the constructs.

OVERVIEW

There has been much research directed at understanding the effects of knowledge on consumer behaviors such as information search and decision making (see for example, Beatty and Smith 1987, Bettman and Park 1980, Punj and Staelin 1983). Still, there is a lack of agreement and consistency about the definition and operationalization of the knowledge construct. For example, Alba and Hutchinson (1987) define two components of knowledge - familiarity (or experience) and expertise, while Brucks (1985) includes subjective knowledge as part of the knowledge construct. Alternatively, Beatty and Smith (1987) define consumer knowledge as self-assessed knowledge. However, the theoretical and empirical relationships among these constructs have not been fully explicated. For example, many researchers have used self-assessed knowledge as the sole measure of consumer knowledge. However, given the rather modest correlations (.4 to .6) that often have been found between measures of objective and self-assessed knowledge, the use of self-assessed measures of knowledge may obscure our understanding of the effects of objective knowledge on behavior. It may be more useful to consider the two variables as separate but related constructs that have important implications for consumer behavior. Since self-assessed knowledge is the consumer's perception of what or how much he or she knows, self-assessed knowledge may be the more important determinant of behaviors, particularly such behaviors as information search and decision making.

Consumers' perceptions of what or how much they know may be systematically biased. Specifically, consumers may be over or underconfident about how much they know about a given product class. Little research has focused on the determinants of over and underconfidence in knowledge assessment. The existence of over and underconfidence has important implications for consumer behavior researchers since

these inaccuracies could lead to suboptimal consumer behaviors. For example, overconfidence could lead to insufficient information search, while underconfidence might cause consumers to be more susceptible to persuasion attempts. In addition, it is possible that the marketing actions of firms actually contribute to the bias through the amount, and/or type of information given.

The papers in this session focus on questions such as: what are the conceptual and empirical relationships among self assessments of knowledge, objectively measured knowledge, and product experience? What is the basis consumers use to assess their own knowledge? How does the basis they use affect their perceived extent of knowledge? What are the conditions under which consumers (and decision makers more generally) are likely to be over confident? Does overconfidence occur because of the effects of actual knowledge, perceptions of knowledge, or both? Are there ways to reduce overconfidence, i.e., to bring perceptions of knowledge more in line with actual knowledge?

The first paper, by Catherine Cole, Gary Gaeth, Goutam Chakraborty, and Irwin Levin, focuses on the relationship among the constructs of objective knowledge, self assessments of knowledge and product experience. The authors review their own empirical results which illustrate the interrelationship of the constructs across a number of product categories. In addition, they show the relationship of these constructs to other constructs of conceptual and practical importance.

The second paper, by Susan Broniarczyk, Wesley Hutchinson, and Joseph Alba, focuses on overconfidence. In two sets of laboratory experiments they examine the determinants of confidence in knowledge and the impact of types of presentation formats in a learning task on the effect of confidence on judgements.

The third paper, by Jayashree Mahajan, also focuses on confidence and overconfidence. In her paper Mahajan reports on a laboratory study which examines the sources of overconfidence in decision making about marketing strategy. She examines the impact of the type of evaluative feedback and the presence of contradictory evidence on overconfidence.

The final paper, by Park, Feick, and Mothersbaugh, examines the consumer knowledge assessment process. They gather data about the process consumers use to assess their own knowledge about C.D. players and examine the impact of the type of approach used on knowledge assessments.

More detailed abstracts of the papers follow.

¹The authors gratefully acknowledge the insightful comments provided by our discussant, Meryl Gardner.

Exploring the Relationship Among Self-Reported Knowledge, Objective Knowledge, Product Usage and Consumer Decision Making

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Except for a rather small collection of experiments specifically designed to investigate relationships among different measures of knowledge, most studies operationalize the knowledge concept in whatever happens to be the most convenient fashion. However, partly due to recent theoretical work in the knowledge area, and partly due to indirect evidence emerging from our own work, in this paper we look more closely at these measures and report that there is a disturbing lack of shared variance.

First, we present data from a number of studies that have used a wide variety of product classes where we have measured the following three types of knowledge: *self-reported knowledge* (SK) - based on a response to rating scale measures; *self-reported experience* (SE) - based on reported frequency of use; and, *object knowledge* (OK) - based on a factual test. On average, the correlation is strongest (about .55), between SK and SE, and weakest (about .30), between SK and OK.

Second, we inspect the amount of variance these different measures of knowledge explain in a variety of dependent variables. Our results, again taken across a number of different studies, suggest that SK and SE relate best to dependent variables representing affective reactions. To illustrate, we found that involvement with a product class, (electronic typewriter), is significantly related to SK and SE (.23 and .46), but not related to OK (.02), while high basketball OK showed reduced context effects in assessing free throw proficiency. We speculate that OK may be related to task performance oriented measures (e.g., recall, accuracy, use of simplifying heuristics).

Two conclusions seem appropriate. First, it is risky to depend on only one of these three measures of knowledge. Our results would suggest substantively different conclusions may emerge depending on the measure chosen by the researcher. Second, our inconsistent results suggest prior work relating knowledge to other consumer behavior variables needs to be reconsidered with explicit attention paid to what type of knowledge measure was used.

What Consumers "Really" Know and What They "Think" They Know: Investigations Into the Determinants of Confidence and Performance

Susan Broniarczyk, J. Wesley Hutchinson and Joseph W. Alba, University of Florida

Two important problems for consumer research are (1) identifying the determinants of knowledge confidence and (2) developing interventions that can counteract the negative effects of this confidence when it is misplaced. In this paper, we present results from two sets of experiments that address these issues.

In the first set of studies a concept learning paradigm was used. Subjects took part in an initial learning phase in which they were exposed to two categories of goods within a single product class (e.g., high quality versus low quality stereo speakers). Afterward, a categorization test was administered in which subjects were presented with additional examples of the product class and were asked to determine the category to which each belonged. In addition, scale ratings of confidence for each judgement were taken. The percentage of correct categorization responses measured what subjects "really" knew, and the confidence ratings measured what consumers "thought" they knew. Results showed that our most powerful independent variables affected both measures. However, the manipulations of some factors affected only the objective measure, while others affected only the confidence measure. Interestingly, individual covariates such as gender, subjective knowledge, and objective knowledge primarily affected confidence. One explanation is that confidence is sensitive to salient manipulations and self-perceptions that subjects believe should affect performance but is not sensitive to "subtler" manipulations.

The second set of studies involved a prediction task in which we attempted to instill factual knowledge that was at variance with consumers' general beliefs. Specifically, subjects were presented with quality predictors for stereo speakers. In the learning phase, quality was highly correlated with level of advertising expenditure but was uncorrelated with price. This information was conveyed in one of three different ways: (1) through inspection of 25 fictitious brands and their associated levels of quality, price, and advertising, (2) through summarized central tendency information, i.e., the median prices and advertising expenditures of high quality and low quality brands, (3) through directly informing subjects of the correlations between price and quality and between advertising and quality. Afterward, 15 new brands were presented and subjects were asked to predict quality based on price and advertising levels. Results showed that prior beliefs exerted a strong influence in all cases but varied as a function of learning condition. When allowed to inspect individual brand information, low and nearly equal weights were placed on price and advertising as predictors of quality; that is, subjects were unwilling to rely heavily on either predictor despite the dominance of advertising in the data. When expressed as central tendencies, predictions were based almost exclusively on price. Finally, when expressed as correlations, subjects appropriately placed a high weight on advertising but also placed an equally high weight on price. Thus, even when provided with knowledge in an unambiguous manner, performance can be driven by what consumers think should be true. When prior beliefs are strong, attempts to debias consumers may be difficult.

The Overconfidence Effect In Strategic Marketing Predictions

Jayashree Mahajan, University of Arizona

Estimating the likelihood of future events is a critical aspect of making strategic marketing decisions. An important bias that has emerged consistently in a variety of studies in the area of probability assessment is that of overconfidence (e.g. Fischhoff 1982). Typically, individuals believe they know more than they actually know. These findings have implications for strategic market planning, as predictions of this type tend to be complex as compared to the types of judgment tasks reported in earlier work (Barnes 1984). More importantly, it is highly confident predictions that managers are most likely to act upon and commit resources to without pausing to consider additional information.

This study conceptually and empirically evaluates the sources of overconfidence by examining the psychological context within which strategic marketing predictions are made. Specifically, the processes of how individuals learn from past performance, generate evidence to assess the current situation, and subjectively construe the future are hypothesized to affect overconfidence. The study explores the robustness of the overconfidence bias in the context of predictions commonly made by managers from company and industry data contained in a strategic marketing plan. Three levels of evaluative feedback (Favorable, Neutral, Unfavorable) and two contradictory evidence conditions (Contradictory Evidence, No Contradictory Evidence) were investigated in a 3x2 factorial design. A total of 90 students participated in a study in which data were collected over 3 months.

The results suggest that evaluative feedback has a large impact on overconfidence, primarily through its impact on accuracy rather than through an impact on confidence. In addition, subjects who were required to provide contradictory evidence proved to be less overconfident than subjects who were not so required. There was no interaction between feedback and evidence.

To summarize the findings, overconfidence in strategic marketing predictions tends to be higher when: (a) prior performance is perceived to be superior, (b) no contrary evidence is generated, and (c) events are perceived to be more certain or familiar, or prediction behavior is atypical.

Consumer Knowledge Assessment: How Product Experience and Knowledge of Brands, Attributes, and Features Affects What We Think We Know

C. Whan Park, Lawrence Feick and David L. Mothersbaugh, University of Pittsburgh

Researchers in consumer behavior have studied the effects of knowledge on a variety of consumption-related behaviors. Across studies, researchers often have used either a measure of actual knowledge or a self assessment of knowledge, or both. This paper focuses on the knowledge assessment process.

Results of an exploratory study designed to investigate the knowledge assessment process

indicate that information ranging from specific knowledge about the product (e.g., brand names, attributes, and features), memory for experience events (e.g., ownership, usage, ad search), and involvement with the product category are used in making SAK judgements. The results indicate that of these, experience related information dominates consumers' responses - about 70 percent of the responses involved experience. The experience-based responses also seemed to have a large impact on the level of the respondent's SAK. That is, individuals who mentioned they had experience reported higher levels of SAK than those who didn't mention experience. Similarly, those who mentioned they lacked experience had lower levels of SAK than those who didn't mention experience.

Finally, some results of the study suggest that brand and attribute information was as available to individuals who used that information in their SAK assessment as it was to those who didn't. We discuss the implications of these results for future research.

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Consumer Knowledge Assessment: How Product Experience and Knowledge of Brands, Attributes, and Features Affects What We Think We Know

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ABSTRACT

Results of a study conducted to understand the knowledge assessment process indicate that information ranging from specific knowledge about the product (e.g., brand names, attributes, and features), to memory for experience events (e.g., ownership, usage, and search), to statements about involvement with the product category are used in making knowledge assessment judgements. In addition, experience-related information (ownership, usage, search) was found to dominate consumers' responses in the knowledge assessment process. Finally, tentative results suggest that attribute and brand information may not be used as a cue to infer actual knowledge even when this information is available in memory. Implications of these results for future research in knowledge assessment are discussed.

INTRODUCTION AND BACKGROUND

In consumer behavior, researchers have examined the effects of knowledge on behaviors such as the extent of information search (Brucks 1985; Moore and Lehmann 1980; Punj and Staelin 1983), the efficiency of information search (Brucks 1985; Punj and Staelin 1983), the order of information acquisition (Siminson, Huber, and Payne 1988), the learning of new product information (Johnson and Russo 1984), choice of evaluation strategies (Sujan 1985), and decision processes (Bettman and Park 1980).

However, across studies, there has been little consistency in the definition or operationalization of consumer knowledge. Specifically, while some research has defined and operationalized knowledge as the nature and amount of information about a specific domain that is stored in long-term memory (i.e., actual knowledge (AK)), other research has defined and operationalized knowledge as consumers' perceptions of what or how much they know (i.e., self-assessed knowledge (SAK)).

Despite the apparent multidimensional nature of the consumer knowledge construct (e.g., AK vs. SAK), it is often treated as a unidimensional construct, with results obtained using AK or SAK measures of knowledge interpreted as representing a "knowledge effect." However, research indicates that (1) what people think they know and what they actually know often differ (DeNisi and Shaw 1977; Lichtenstein and Fischhoff 1977; , Fischhoff, Slovic, and Lichtenstein 1977; Schacter 1983; Nelson, Leonesio, Shimamura, and Landwehr 1982; Park 1982), and (2) actual knowledge and self-assessed knowledge may have different effects on consumer search and decision processes (Bransford 1979; Park, Gardner, and Thukral 1988; Rudell 1979).

Actual vs. Self-Assessed Knowledge

The research by DeNisi and Shaw (1977) suggests that at "moderate" levels of actual knowledge, what people know and what they think they know do not correspond well. Research by Lichtenstein and Fischhoff (1977), and Fischhoff, Slovic, and Lichtenstein (1977) had subjects provide answers to dichotomous questions and then judge how certain they were that the answer they gave was the correct answer (i.e., they provided a confidence rating). Results suggest that even when subjects were very confident in their responses (e.g., a 100 percent probability that the chosen answer was the correct one), these responses were only objectively correct 20 to 30 percent of the time (Fischhoff, Slovic, and Lichtenstein 1977).

Further indications that what people know and what people think they know may differ comes from Schacter (1983), Nelson et al. (1982), and others studying the "feeling-of-knowing" phenomenon. Schacter reasoned that people who lacked the information needed to recall an item may still know enough to indicate whether or not they would be able to recognize it if they saw it. This mode of expressing knowledge about unrecalled information is termed the "feeling-of-knowing" effect. Although such feelings appear to predict recognition of formerly unrecalled items at an above chance level, the effect is modest. Specifically, subjects fail to recognize many items which they feel they know (Schacter 1983). Nelson, et al. studied how extent of learning affects the accuracy of feeling of knowing judgements (Extent of learning was operationalized as the number of times an item was recalled after an initial exposure). They found that when learning was low, the correlation between feeling-of-knowing (analogous to SAK) and recognition (analogous to AK) was zero. Even when the extent of learning was high, the correlation was modest ($r=+.31$).

Finally, there is also research in consumer behavior that supports the potential discrepancy between AK and SAK. For example, Park (1982) found that consumers think they know more about their spouses' home preferences than they actually do. Specifically, their perceived knowledge of their spouses' home preferences did not accurately reflect their spouses' actual home preferences in terms of salient features, and preferred levels on these features.

The Differential Effects of AK and SAK

Because AK is an objective measure of factual memory content, and SAK is a perceptual measure of memory content, it seems reasonable to view AK as an ability factor, and SAK as a motivational factor. Specifically, AK may provide raw material for problem

solving, and lead to increased efficiency in search, and, hence, better accuracy in problem solving. Alternatively, SAK may provide the motivation (or lack of motivation) to search for and process task-relevant information. Research support for SAK as a motivational factor is provided by Bransford (1979), Park, Gardner, and Thukral (1988), and Rudell (1979).

Bransford (1979) has suggested that metacognition (or awareness of a deficiency in knowledge needed to complete a task) is one of the most important means to enhance the motivation to learn. Given the close conceptual connection between SAK and metacognition (both require self-assessments of knowledge), it is likely that SAK consists of a motivational component as well. In addition, Park, Gardner and Thukral (1988) found that independent of AK, SAK affected inference generation, and receptivity of subjects towards updating prior information and beliefs based on new information. Specifically, individuals with low SAK generated more inferences and were more receptive to updating prior information based on the new information than those with high SAK. Rudell (1979) found that while higher levels of AK increased subjects ability to use new information, higher levels of SAK increased subjects reliance on internal information or memory (i.e., it appeared to decrease their motivation for external search).

An additional finding on the differential effects of AK and SAK is provided by Brucks (1985). Brucks found that SAK can have an effect on search strategy that is unrelated to AK. Specifically, Brucks found that SAK was negatively related to use of expert advice (dealer evaluations), while AK was not related to the use of these evaluations.

These results have several implications for consumer behavior research. First, given that SAK acts as a motivational factor, it may be important in determining whether or not search is initiated, and the types of information that receive attention and subsequently get processed by a consumer. Second, since SAK is often an inaccurate indicator of AK, this inaccuracy may lead to biased or suboptimal consumer behaviors.

Given the potential importance of SAK in consumer behavior, and the potential for SAK to be a biased indicator of AK, it is important to understand how SAK judgements are made. Understanding this assessment process, and information that is used by consumers in making SAK judgements, will yield a better understanding of the SAK construct. This, in turn, should help researchers understand (1) when and why discrepancies will exist between AK and SAK, and (2) when and why SAK will have effects on behaviors and decision processes that are different from the effects of actual knowledge.

The purpose of this study is to gain a better understanding of the knowledge assessment process and the information that is used by consumers in making these knowledge assessments.

KNOWLEDGE ASSESSMENT

Consumer knowledge assessment can be seen as a judgement task in which contents of internal memory are scanned for information relevant to the

judgement. Specifically, assessing one's own knowledge involves self-perception (Bem 1972) based on internal information, or memory cues.

A wide range of potential memory cues could be used in making an SAK judgement. For example, one set of cues that could be used is specific product-related information (or awareness of the lack of such knowledge) such as brand names that are known, attributes, features, and differences among brands on a given feature or attribute. Specifically, when asked how much they know about a given product, consumers might use the fact that they know many brand names or attributes of the product, and therefore infer that they know quite a bit about the product.

Alternatively, SAK judgements could be made based on memory for events or experiences (or lack of experience) related to that product. For example, memory of past experience with a product in the form of ownership, usage, or information search may be used to make SAK judgements. Specifically, when asked how much they know about a given product, consumers might utilize the fact that they own or use the product or that they have searched for information about the product, and therefore infer that they know quite a bit about the product. In addition, they might distinguish between different sources of information search such as media vs. personal sources. In fact, given that event memory is less likely to decay over time (Carlston 1980), memory of product-related experiences may have an impact on SAK judgements that is largely independent of the amount of product-related information that is available.

Other memory cues that could be used include (1) relative amount of knowledge compared to others (e.g., I know a lot compared to my friends), (2) relative amount of knowledge in one domain as compared to knowledge in another domain (e.g., Compared to my knowledge of Product X, I know very little about Product Y), and (3) level of interest/involvement in the product and product class (e.g., I am very interested in Product X).

METHOD

Overview

In order to understand what information consumers use when making knowledge assessments, we conducted an exploratory study. The product used in this study was CD players, since a pretest indicated that there was sufficient across-individual variation in SAK on CD players to allow for a meaningful study of the knowledge assessment process.

First, participants were asked to indicate how much they felt they knew about compact disc (CD) players. Next we collected cognitive response data by asking participants to write down why they felt they knew as much about CD players as they indicated on the first question. Later in the questionnaire, respondents were asked to recall as many (1) brands, and (2) attributes and features of CD players as they could.

Two questions were of interest in this study. First we were interested in identifying the types and frequency of usage of information or internal memory

cues used in making knowledge assessments. Second we were interested in understanding the effect of the use of various memory cues on knowledge assessments.

Sample

Self-administered questionnaires were completed by a convenience sample of 93 MBA students at The University of Pittsburgh who were paid to participate. The average age in this sample was 26 years, 54 percent of the respondents were male, and 39 percent of the respondents owned a CD player at the time of questioning.

Measurement

Self-Assessed Knowledge - Self-assessed knowledge (SAK) was measured using a 9-point single item question. This question asked "How much do you feel you know about CD players?" Response categories ranged from (1) "very little," to (9) "very much." This SAK measure is a very general type of SAK question. It includes (1) no mention of a comparison standard (e.g., How much do you know about CD players as compared to the average person), and (2) no mention of the dimension on which knowledge assessment should be based (e.g., How much do you know about the features of CD players?, or How much do you know about the brands of CD players?) Although other research on SAK has utilized both comparison standards and/or dimension statements (Brucks 1985; Spreng and Olshavsky 1990), we wanted to impose as little outside structure on the task as possible, and therefore did not utilize these types of structuring statements.

Cognitive Responses - Immediately after responding to the general SAK question, respondents turned the page and were asked "On the lines below, please list the reasons why you felt you knew as much as you indicated in question 1." Coding of the responses was done by two coders, one of whom was not involved in the study design. Interjudge agreement was 85 percent, and disagreements were resolved by discussion. Next, general categories were developed for the analysis presented in this paper.

Table 1 describes these general categories which include: (1) knowledge-based responses such as (a) brand name knowledge (Brands), (b) knowledge of the attributes and features of CD players (Attributes), and (c) knowledge of technology (Technology), (2) experience-based responses such as (a) ownership of a CD player (Ownership), (b) usage of CD players (Usage), and (c) search for CD player information (Search), and (3) responses indicating involvement with CD players (Involvement).

For each of the seven response categories, each respondent was categorized into one of three groups as follows: (1) Positive mention - respondents with one or more positive responses in that category (e.g., I own a CD player), (2) Negative mention - respondents with one or more negative responses in that category (e.g., I don't own a CD player), and (3) No mention - respondents who made no statements that fell within that category. Because of the coding scheme, it was possible for a respondent to be categorized into both

the positive and negative mention groups. In the few cases when this occurred, the respondent was not included in that particular analysis.

As an aside, although previously we suggested that comparisons with other people and comparisons with knowledge in other categories might be used as cues to infer SAK, no statements of this nature were made by the respondents.

Knowledge of CD Brand Names - Knowledge of brands of CD players was measured using a free-recall question that asked respondents to list as many brands of CD player as they could. The total number of brand names listed was used as a measure of the number of brands of CD players available in memory.

Knowledge of CD Attributes - Knowledge of CD attributes and features was measured using a free-recall question that asked respondents to list as many attributes and features of CD players as they could. Examples of attributes and features from other product domains were given to ensure that respondents understood the meaning of these terms. Again, the total number of attributes and features listed was used as a measure of the number of attributes and features of CD players available in memory.

ANALYSIS AND RESULTS

To answer the general questions of interest in this study, we conducted two sets of analyses that utilized the SAK measure and the cognitive response categories shown in Table 1.

The Relative Importance of Different Internal Memory Cues

In the first analysis, we examined the relative importance of each cognitive response category in making knowledge assessments. This analysis was completed by computing the percentage of each participant's total responses that fell into each of the seven categories, and then averaging these across all 93 respondents. These results are shown in Table 1. The results indicate the dominance of experience-based cognitive responses. Almost seventy percent of the cognitive responses were linked to product experience. On the other hand, less than thirty percent of the responses related to knowledge about CD players. The single most frequently mentioned category was ownership (28 percent) and the least frequently mentioned was knowledge of brands (2 percent).

The Effect of Internal Memory Cues on SAK Judgements

In our discussion of knowledge assessment, we proposed that knowledge assessment is a judgment process based on internal memory cues. Therefore, the cues used by a respondent in making a knowledge assessment should affect the level of SAK indicated by the respondent. Specifically, those in the positive mention group (POSM) of a given category should be expected to have higher levels of SAK than those who make no mention (NOM), while those in the negative mention group (NEGM) should have lower levels of SAK than those in the no mention group.

TABLE 1
Description of the Cognitive Response Categories

Response Category	Description	Average Percentage of Total Responses*
<i>1. Experience-based</i>		
•Ownership	• Statements referring to ownership/lack of ownership.	28 %
•Usage	• Statements referring to usage/ lack of usage.	17 %
•Search	• Statements referring to search/ lack of search. Search statements include both general statements, and specific mention of sources such as <i>Hi-Fidelity</i> magazine and word-of-mouth.	23 %
<i>2. Knowledge-based</i>		
•Brands	• Specific listing of CD brand names, or statements referring to a knowledge/lack of knowledge about brands of CD players.	2 %
•Attributes	• Specific listing of CD player attributes, or specific differences between brands of CD player. Also, statements referring to knowledge/lack of knowledge about the attributes and/or features of CD players.	16 %
•Technology	• Statements referring to an understanding/lack of understanding about the underlying technology of CD players, or how CD players work.	10 %
<i>3. Other Responses</i>		
•Involvement	• Statements referring to involvement/lack of involvement with music, stereo equipment, and CD players.	4 %

*Note that irrelevant responses were ignored, and hence total responses represent the sum of responses given in the seven categories listed above.

In order to determine which internal cues had an effect on SAK judgements, we performed a one-way ANOVA for each cue category, using the general SAK measure as the response variable, and group membership (e.g., negative mention, positive mention, and no mention) as the explanatory variable. In addition, Tukey's pairwise comparisons were performed on the groups to determine which groups differed in terms of average SAK. These results are presented in Table 2.

Several results from Table 2 are worth noting. First, with one exception, the means within each cognitive response category exhibit the pattern $NEGM < NOM < POSM$, i.e., those in the positive mention group had higher SAK scores than those in the no mention group, and those in the no mention group had higher SAK scores than those in the negative mention group. Even in the case of the exception (usage), the positive mention group had higher levels of SAK than the negative. Differences were significant in all response categories except the two in which there were very small n's in one cell

(brands and attributes). For all other response categories, SAK was higher in the positive than in the negative mention group.

Table 2 also includes the percentage of respondents who mentioned each of the response categories. The results indicate that more respondents gave experience-based than knowledge-based responses. For example, while brands and attributes were mentioned by 8 and 33 percent of respondents, respectively, ownership, usage, and search were mentioned by 73, 50, and 44 percent of respondents. These results led us to wonder if lack of positive mention of brands and attributes was due to a lack of knowledge of brands and attributes. To check for this possibility, we performed further analyses using the free-recall measures of brand-name and attribute knowledge. In these analyses, we examined the number of brands and attributes listed (free-recall) by whether or not they mentioned brands or attributes as a reason for their SAK.

The number of brands listed by respondents ranged from 0 to 16, with an average of about 6. The

TABLE 2
Self-Assessed Knowledge Scores by Response Category

Response Category	Percentage of Respondents who Mentioned	Mean Self-Assessed Knowledge Score			F-Statistic
		Negative Mention Group	No Mention Group	Positive Mention Group	
<u>Experience-based</u>					
Ownership	73%	3.0 ^a (35)	4.0 ^a (25)	6.0 (32)	25.7*
Usage	50	1.9 (15)	5.2 ^a (45)	4.3 ^a (30)	18.4*
Search	44	1.9 (10)	4.2 (50)	5.5 (30)	15.0*
<u>Knowledge-based</u>					
Brands	8	3.0 ^a (3)	4.3 ^a (86)	6.0 ^a (4)	1.9
Attributes	33	4.0 ^a (3)	4.1 ^a (60)	4.9 ^a (26)	1.4
Technology	32	3.4 ^a (11)	4.1 ^a (63)	5.6 (19)	5.8*
<u>Other Responses</u>					
Involvement	15	2.2 (6)	4.3 (79)	6.3 (8)	7.3*

Notes:(1) * $p < .05$; (2) Numbers in parentheses are the number of respondents in each group; (3) Means with the same letter superscript are not significantly different from each other using Tukey's test ($p = .05$).

number of attributes listed ranged from 0 to 20, with an average of 5.5. Because of the small number of respondents who provided positive mention of brands, the results for brands are likely to be unreliable and therefore no statistical tests were performed. Still, in the no mention group, the average number of brands listed was about 6, while the positive mention group listed 7.

For attributes, the mean number of attributes listed in the no mention group (NOM) was 5.2, while the mean in the positive mention group (POS) was 6.5, and the difference is not significant ($t = 1.5$, $p = .136$). For both brands and attributes, these results suggest that those in the no mention group were as able to list brands and attributes as those in the positive mention group. The results suggest that brand and attribute information was available in memory to these respondents but not used in making knowledge assessments.

DISCUSSION

This study was conducted to better understand the knowledge assessment process, and the kinds of information or internal memory cues used by consumers in making knowledge assessments. Preliminary analyses indicate several interesting results. First, the types of internal memory cues used by consumers in making knowledge assessments range from specific knowledge about the product (e.g., attributes and features), to memory for experience events (e.g., ownership, usage, and search), to statements about involvement with the product category.

Second, experience-based cues were found to dominate consumers' responses in the knowledge assessment process. On average, 68 percent of a participants responses fell into the experience-based category. This is contrasted with only 28 percent in the knowledge-based category.

Third, in addition to being mentioned more frequently, experience-based responses also seemed to have a greater effect on the level of SAK reported by respondents. There were significant differences in SAK across the mention groups for ownership, usage, and search: all of the experience-based responses. On the other hand, of the knowledge-based responses, only technology responses resulted in significant differences in the level of SAK reported by respondents. One implication of these results is that to the extent that there is not a one-to-one correspondence between experience and actual knowledge (Brucks 1985), the use of experience as a heuristic to infer actual knowledge will lead to biased knowledge assessments.

Fourth, although the results are tentative because of small sample problems, the results indicate that the presence of a cue in memory does not necessarily lead to its use in an SAK judgement. Those who did not mention attributes or brands as cues were found to be about as capable of listing attribute and brand information as those who did mention brands or attributes. It appears that memory for experiences is relatively more accessible than memory for specific product knowledge, and therefore is more likely to be used in making knowledge assessments.

Several areas of future research in consumer knowledge need further exploration. First, further research is needed to better understand the interrelationships between experience, actual knowledge, and self-assessed knowledge. Although product experience is likely to result in actual knowledge (Alba and Hutchinson 1987; Brucks 1985), the relative effects of experience and actual knowledge on self-assessed knowledge are less clear.

A second and related issue is the role of actual knowledge and experience in causing over and underconfidence in SAK judgements. Specifically, while much research has examined factors leading to overconfidence, little research has examined factors such as lack of product-related experience that might result in underconfidence in knowledge assessments. Finally, more research is needed to better understand the different effects that actual and self-assessed knowledge may have on consumer search, processing, and decision processes.

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Postmodernism, Consumer Culture and the Society of the Spectacle

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INTRODUCTION

The notions of modernism (or modernity) and postmodernism (or postmodernity) are currently a subject of great debate across many disciplines. Featherstone (1988) lists several fields where this debate has been raging for some years in the Western world: art (including music), fiction, film, and photography, architecture, philosophy and literary criticism. Recently, the debate has entered the social sciences, and in particular into cultural and social anthropology, sociology, political theory and social theory. In the field of consumer behavior specific attention to postmodernism is limited and is quite recent (Firat 1989, Firat and Venkatesh 1992, Sherry 1990, Venkatesh 1989). However, there has been a burgeoning of research in a related area, now known as post-positivism, as represented in the contributions of Belk, Hirschman, Holbrook, Mick, Anderson and Ozanne, O'Guinn, Thompson, Wallendorf, to name an important few.

Postmodernism, unlike postpositivism which it subsumes, represents a more fundamental historical development signifying an emerging cultural condition that stands both as an extension of modernism and as its critique. This paper is an attempt to capture some of the main ideas represented within postmodernism and its relationship to consumer culture.

BACKGROUND

The focus of attention in this paper is postmodernism. The prefix "post" refers to something that comes after something else--in this case, modernism. Similarly, that which came before modernism is called premodernism. For the sake of keeping the analysis a little simple, we might say that these three concepts, premodernism, modernism and postmodernism represent three different periods in the history of the West. In each of these periods, the basic focus is on the "individual" and his/her relationship to the external world. Thus in the premodernist period, the philosophical focus was on the concept of "being," that is, on human existence and the relationship of "being" to God and the Universe. In the modernist period, the focus shifted from "being" to "knowing", or from existence to cognition. In this period, the main concern was to understand the individual as a "knowing (or cognitive)" subject and the external world as a rational social order. In the postmodernist period, there is a further shift from the knowing subject to the "communicative" subject and in the case of the external world from a rational to a symbolic system. The question then is, how has this entity whom we call a human-BEING, who later became a knowing-subject, now become a communicative subject. Similarly, how do we account for the macro shift from a rational to a symbolic system. Using a more technical language, we might say that the individual seems to be moving from a cognitive world (modernism) to a semiotic

world (postmodernism)--the world of knowledge acquisition and production to a world of symbol and sign manipulation. Before we proceed to develop fully the notion of postmodernism, it is important to understand what modernism (or modernity, an equivalent concept) stands for.

Modernity refers to the last three hundred years of Western history during which many of the current ideas were developed. To quote Habermas (1981 p.9), "The project of modernity formulated in the 18th century by the philosophers of the enlightenment consisted in their efforts to develop objective science, universal morality and law, and autonomous art, according to their inner logic. At the same time, this project intended to release the cognitive potentials of each of these domains to set them free from their esoteric forms. The Enlightenment philosophers wanted to utilize this accumulation of specialized culture for the enrichment of everyday life, that is to say, for the rational organization of everyday social life."

Some people argue that there is no single idea (metanarrative) or a universalistic principle that is associated with modernity. We can, however, glean a cluster of closely related ideas in the various descriptions of modernity: the rule of reason and the establishment of rational order; the emergence of the cognitive subject; the gradual secularization of human thought and the decline of religion in the conduct of human affairs, the rise of science and an emphasis on material progress as the goal of the scientific enterprise; realism, representation, and the unity of purpose in art, architecture and science; the emergence of industrial capitalism and the separation of the spheres of production as an institutionally controlled public activity from consumption as a domestically defined private activity.

If one were to describe the central characteristic of modernist narrative, it refers to a period when the individual is defined as a "knowing" subject, an autonomous agent working within a social and economic order which was driven by the power of reason. In the modernist ethos, knowledge serves an instrumental purpose, as a tool for improving the material conditions of human life on this planet. Thus, human life is considered in terms of here and now, and there is little reference to life after we leave this planet, as was the case in the premodernist period. The focus of all knowledge is, herefore, the living life that occurs between birth and death. Improvement necessarily means building on what was available in the past. Thus the progression of knowledge becomes linear, futuristic--and goal oriented--or as philosophers call it teleological. The goal of knowledge in modernism is to make it possible for conditions of material life to improve and to make the linear progression towards better life possible. It also means improving the cognitive capacities of individual minds and enhancing their reasoning skills and abilities so they can make better judgements. The

social system accordingly expects to better prepare its members to apply their knowledge to socially determined goals. Individuals become investments and society rewards them in terms of how well they perform in this rationalist enterprise.

The positive assessment of modernity usually runs as follows: the process of modernity has improved the human condition and led to material progress beyond imagination. It is generally known that, in today's world, modernization is a goal that many traditional societies aspire for and toward which they have committed their national resources. The global shift to industrialization and the easing of economic restrictions in command economies, coupled with the move toward individual growth and privatization, constitute a signal that what is modern is desirable and what is desirable must be attained.

What are the implications of the idea of modernity for consumer research? The hallmark of consumer culture is the creation of products and services which have both use value and exchange value. Marketing practice is based on the knowledge that helps achieve its main goal of creating "marketable products," a term that has come to mean everything from shampoo to religion. Since modernity represents the rise of capitalism which legitimates the exploitation of both nature and culture for the pursuit of wealth accumulation, marketing becomes the consummate instrument in creating the ethos of consumption with which we are all identified.

The question now is, how and why would this modernist model be subject to change, or why do we speak in terms of a new paradigm. Of course, there is no implication here that somehow the period called modernism has suddenly ended, or will soon come to an end. It is just that we see some anomalies, some cues which suggest that perhaps the assumptions and conditions subsumed under modernity need to be scrutinized. So we ask the question what these cues are and what are the postmodernist tendencies that are relevant here.

LATE MODERNISM, CRITIQUE OF MODERNISM AND THE EMERGENCE OF POSTMODERNISM

We shall now briefly discuss some emerging themes in the modernism/postmodernism debate.

The first theme centers around the idea of the post-industrial state as enunciated by Daniel Bell (1973) and his contemporaries in the late sixties and early seventies. Here the essential idea is that the industrial societies are moving toward a new phase in their evolution. This new phase which may be called "post-industrial" differs from "industrial" as industrial was from "pre-industrial." The basic difference between industrial and post-industrial is that the latter is distinguished by the domination of information oriented industries and the centrality of information technology in both production and consumption sectors. Since it is generally acknowledged that we have already entered the so-called information age, this issue, as presented by Bell, is less contested now.

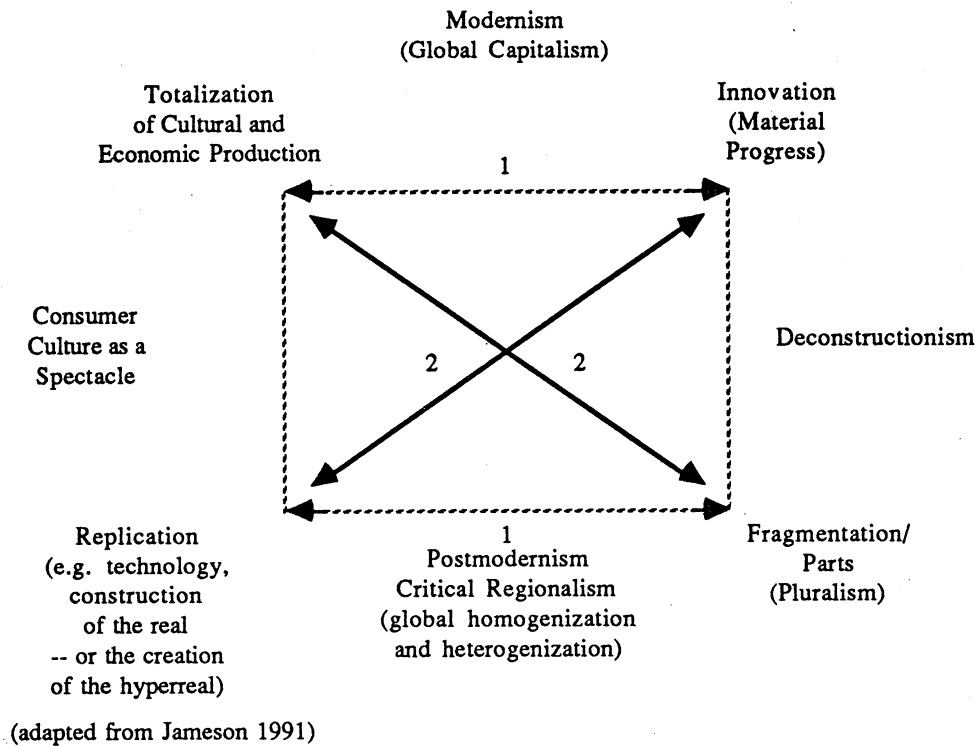
A second theme on modernity is directed towards its paradoxical character. This has to do with

the ideality and reality in modernity. Under conditions of modernity, real becomes hyperreal, representation becomes interpretation, substance becomes form, objects become images, and modernism begins to be consumed in its own images. Modernism, while incorporating uniqueness, produces fragmentation, while emphasizing real produces the imaginary and the hyperreal, while stressing representational fidelity in art and science produces illusions by a clever application of technologies, and while exalting the bourgeois subject into a privileged position alienates him/her and then fragments him/her. Thus the paradox of modernity is the unconnectedness of its ideality to its reality. In this sense modernity is viewed as a myth, or more exactly, its own myth, the myth of modernism. Consequently, the postmodernists would argue that the purpose of their critique is to lay bare the myth of modernity and confront it on its own terms. This is also the celebratory notion of modernity, that is, its liberation from its own constraints. This is also the beginnings of symbolism (as opposed to rationalism) as the basis of human discourse.

A third theme refers to the idea that modernism has run its course, giving way to new forms of representation, new social movements, and an emerging global order in which no single idea dominates, and in which a diversity of forms, however contradictory, can coexist. Jameson (1983) calls this, a pastiche, which signifies a juxtaposition of unrelated ideas, consumer experiences, and historical moments, all packaged and offered to the public. In this scenario, what replaces modernism is not a single postmodernism but several postmodernisms, all competing for attention.

A fourth theme has to do with the scopic regimes of modernity and the accumulation of spectacles as the basis of representation. The notion of representation is fundamental to modernistic thought. The original meaning of representation was the capturing or comprehending of "objective reality" through direct observation, or artistic transformation (eg., painting, photography etc.), or scientific modelling. Representation has also come to mean the construction of the real as conceived by human cognition without reference to objective reality. This means reality intervention is possible either by the application of technology or other forms of human control. The construction of reality therefore suggests that reality is not always treated as a given but subject to manipulation for aesthetic or commercial purposes. Such a notion of representation lies at the heart of the market culture, as witnessed in the design of products, in packaging, in creating spectacular shopping environments and other private and public spaces, and even in the making of the modern human body through various technologies and means of control. These cultural possibilities have prompted different interpretations from contemporary critics. Benjamin's essay on the "Work of Art in the Age of Mechanical Reproduction," Debord's "Society of the Spectacle," and Baudrillard's "Simulations," and "Fatal Strategies" are but a few examples in this direction. All these pertain to the moments of intervention with

FIGURE 1
Greimasian Semiotic Square of Modernism and Postmodernism



the real and the creation of the visual in what Martin Jay (1988) calls the "scopic regime of modernity."

The philosophical basis of the visual can be traced to Cartesian perspectivalism which according to Jay is the essence of the occularcentric culture which characterizes the society of spectacle. As Jonathan Crary (1988) argues about Western visual tradition, "the emergence of photography and cinema in the nineteenth century is a fulfillment of a long unfolding technological and/or ideological development in the West in which the camera obscura evolves into the photographic camera." As he further notes, "the abstraction and exchangeability of visual experience is intimately connected to economic and social transformations." That is to say, modernism has fused cultural forms into industrial/economic spheres of activity. The notion of the visual, a cultural transformation that is integral to the development of the spectacle is basic to the development of consumer culture where the visual imagery and the "reality" collide. The visual field, the argument goes, is commodified by spectacular creations which have become possible due to postindustrial technologies of reproduction, representation and information.

A fifth theme is a direct critique of modernity. Simply put, it states that modernity, in its quest for ethically ordered, rationally constructed, technologically oriented, seemingly progressive, and relentlessly unifying social order, has failed. It failed because it has alienated the individual, totalized human

life by marginalizing the lifeworld, and reduced form and substance into a single category of implosion. This condition of loss has resulted in considerable self-doubt, and has led to pluralistic modes of life through a desperate search for alternatives. This is what Lyotard (1984) calls the postmodern condition, or a condition arising out of a failure of modernity to truly emancipate the individual. Thus as a critique of modernism, postmodernism represents a realization that there is no single truth but multiple realities, all are legitimate and all equally valid; that individuals, societies and economies are not governed solely by instrumental reason but are subject to historical and cultural processes that cannot be explained by reason alone; that the human being is not necessarily the center of the universe; that modernism is itself an egregious male oriented conceptualization of the world and has consistently retarded female participation in human affairs (hence the emergence postmodern feminism); that capitalism is not the only desirable form of economic order; that progress does not mean marching linearly toward a predetermined goal; that the quality of life need not be measured in economic and material terms only; and that in human affairs aesthetic judgement is just as important as economic judgement.

As an extension of modernism (as opposed to a critique), postmodernism represents certain other developments. They relate to the burgeoning of new technologies, the changing nature of the global order,

and the development of new forms of aesthetic consciousness and knowledge structures.

Finally, we propose a Greimasian semiotic square to depict the relationship between modernism and postmodernism (Figure 1). The square also serves to represent the general boundaries of discussion for this debate. Using a system of contraries and contradictories, we argue that modernism and postmodernism stand in opposition to each other in the following way. Modernism, in economic terms, represents global capitalism which in turn is comprised of two key elements, (a) totalization of culture and economic production and (b) "innovation" as its transcendental telos, signifying the modernist imperative of relentless creation of things that are new, in an effort to keep moving ahead constantly, all the time. Postmodernism is represented in the figure in opposition to modernism with emphasis on pluralism (fragmentation) and the principle of replication. Replication stands for the reconstruction of the real, or as Baudrillard calls it the creation of the hyperreal.

To conclude, we quote from Featherstone (1991) as the main problematic of postmodernist debate, "A central intention in this [analysis] is to understand how postmodernism has arisen and become such a powerful and influential cultural image, and how this image has unfolded with such energy in contemporary consumer culture. This is not to assume that postmodernism is merely a deliberate "artificial" construct of disaffected intellectuals out to increase their own power potential. Far from it. Rather it is to raise questions about the production, transmission and dissemination of knowledge and culture. All developments point to the general conclusion that postmodernism has now outlived the duration of a fad, and is emerging as a powerful cultural image. This is a very good reason for social scientists and others to be interested in it. My purpose is to take the experiences and practices designated as postmodernism seriously and seek to investigate and comprehend the range of phenomena associated with this category. Yet, once we focus on actual experiences and practices, it is clear that there are similarities between these alleged postmodern experiences and practices and many of those designated as modern and even premodern. The challenge lies in differentiating between the dichotomies of modern and postmodern."

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Fragmentations in the Postmodern

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ABSTRACT

This paper (deliberately not fragmented by headings) investigates the different kinds of fragmentations present in contemporary life and their influences upon the consumer, and questions whether, contrary to the postmodernist position that all metanarratives are at an end, we are witnessing the appearance of a new kind of metanarrative.

Postmodernists have alerted us to fragmentations that seem to be all around us. These fragmentations pervade many experiences and take different forms. Philosophically, the more important form of fragmentation involves the discursive formations (Foucault 1972; Jay 1986; Lyotard 1984). This pertains to the inability, or in the case of the postmodernist, the unnecessary, the undesirability, of referring to any unified, consistent, centered field, idea system, or narrative. Thus, the postmodernist call to noncommitment to, or "incredulity with," metanarratives. Postmodernists see, in this fragmentation of and from metanarratives an end to such grand narratives, and some a liberation of discourse, experience, and self from imposed requirements of the unified centered idea system and culture (Lyotard 1986; Wilson 1989) or "regime of truth" (Foucault 1979). It is possible to argue, on the other hand, that the omnipresence of fragmentation in discourse, experience, and self constitutes, in itself, a new metanarrative; a postmodern one, one that is difficult to identify through modern(ist) categories and concepts.

Fragmentations in everyday experience abound. They persist in the media, the most important and dominating mode of exposure to our universe in contemporary society. Fragmentation is in advertisements on television, for example, where we have the thirty-second spots, each further fragmented into many fleeting moments of spectacular visuals which rarely link (as in the case of the *Disney* or *Headline News* commercials) with each other. The purpose of these fleeting scenes and visuals that are exciting to the senses is not to connect to (re)present a centered, unified meaning; thus, the necessity for continuity or complementarity is transcended, allowing the free play of visual images which are only meant to leave the audience with a heightened sense of excitement about the product marketed, an image which is attractive to the emotional existence of the targeted individual. While television is the major medium in contemporary society, it is by no means the only medium of fragmentation. Spoken or printed blurbs on the radio or in newspapers and magazines, highlighted brand names that flash by on billboards constitute primary experiences along with television.

Furthermore, advertising is not the only form which presents fragmentation in the media. News programs on radio and television, news items in magazines and newspapers, situation comedies, soap operas and other programs on television, all exhibit

similar fragmentation. One form of this fragmentation is the partition of the programs, etc., into short, disconnected moments and items, presenting each with great sophistication in technique and style, as a spectacle, to keep the interest, attention, and excitement levels high in the audience, but, then, having to "move along," with pace, onto other spectacles, since the disconnectedness among fragmented moments and items disallow the keeping of attention on the basis of a uniting content. Even the news programs attain the intensity of the commercial ones, playing the spectacle and the spectacular in each item of news, moving from one item to the next, each a spectacle. This is not different from the form of a situation comedy, for example, which moves from one scene to another, one "incident" to another. The trick in all programming for the mass audience seems to be one of allowing the audience to come in or leave the "scene" without feeling awkward, disoriented, or as if something is missing. Each moment, each item, each spectacle has to stand on its own, not necessarily begin and conclude, but (re)present an exciting, spectacular presence.

This requirement and, at the same time, strength of the spectacle is related to the second form of fragmentation. The moments, items, and scenes disconnected to each other are also fragmented from and disjointed to any context. As Gitlin (1989) articulates, each moment, each spectacle is decontextualized. No longer do things belong within a context or a historical process. "Anything can be juxtaposed to anything else. Everything takes place in the present, "here," that is, nowhere in particular" (Gitlin 1989; p. 350). It becomes possible, even preferable, to represent historical events on an even surface, without depth or a sense of the historical process, as a bricolage (Newman 1986; p. 45), in a way which maximizes the spectacle, the excitement, the emotional high. In news programs on television, news items in magazines and other print media, on the radio, and elsewhere, events, scenes, and personalities are often superimposed and juxtaposed onto each other from completely independent and disconnected contexts. In the postmodern, this is not absurd or improper journalism. Rather, the visual sensation of the bricolage is greatly enjoyed.

There is, as a corollary of this continual fragmentation from contexts in our media surrounding and informing us, a fragmentation of our thoughts, desires, and behaviors from our own contexts. Especially the postmodern generation, our youth, sever themselves from the worldly events around them. To the modern(ist) mind this is a state of being uninformed or ignorance. To the postmodern(ist) mentality this is an alternative form of being; one that liberates from the conformities or impositions of a single "regime of truth."

Such postmodern existence is reinforced by another set of fragmentations; that of the signifier

from the signified, the object from the function, and the product from the need. That all signifiers are only arbitrarily linked to the signified (and the referent) has been well recognized by semioticians at least since Saussure (Eco and Sebeok 1983; Santambrogio and Violi 1988). The link is only pragmatic, that is, culturally, linguistically imposed. In the postmodern, the modernist assumption of a natural link is ended and the freedom of the signifier is both declared and celebrated. As in the case of marketing campaigns, the "free-floating" signifiers are playfully and gainfully employed in (re)signification. They are constantly imbued with novel or nostalgic or reinforced meanings to represent a multiplicity of ideas, things, and positions.

As in the case of the fissure between the signifier and the signified, so is there one between the object and its function. All objects, including those specifically produced for a particular function, are, nevertheless, only arbitrarily connected to that function. At the moment of the object's origination is its independence from its culturally signified function. Imagine, for example, the number of different uses a child or even an adult not acculturated to a Western kitchen could find for a mixer. It would be very unlikely that they could correctly guess the use of a mixer in Western civilization. This liberation of the object from its intended use (freedom of objects from their functions) was well recognized by surrealist and other artists, such as Duchamp, Raushcenberg, and Warhol, who turned utilitarian objects (toilet seats, meat grinders, *Coca Cola* bottles) into icons and art pieces in their own right (Varnedoe and Gopnik 1990).

Finally, the product acquired in the market is independent of the need(s) for which the consumer initially sought it and the producer provided it. This, of course, is just an extension of the separation of the object from its original function. In effect, the consumer acquires the product for the image that it represents, and this image is only partially, if at all, constructed on the basis of the need perceived by the consumer. Furthermore, a single product is capable of representing multiple images, as signified by culture and by the marketing effort. Consequently, the disconnectedness of images and products from each other, from their original contents and from their contexts is complete.

The market and marketing practices further emphasize fragmentation of the product. In market exchange and in marketing there is a necessary concentration on the singular product or product group given the competitive conditions. Both in earlier representations of products by artists in catalogues and in more contemporary forms of advertising, the focus is the product which has to be singled out from a crowded background to concentrate attention on it. Such isolation of the product from its context, as in the case of "Just do it" *Nike* advertisements, reinforces the fragmentation that the consumer experiences in consuming the products. Such decontextualization seems to also promote the marketability of an item by making it a spectacle. An example is the sand painting, which originally was part of a medicinal ceremony and was destroyed at the end of that

ceremony. As a commodity, it becomes merely an object of desire, an art object, to be viewed and admired, and bought and sold. This decontextualization is, by no means, original to marketing, however, as evidenced in the sacralization of products through attributing of values and meanings to them independent of their original function or status (Belk, Wallendorf and Sherry 1989).

All such fragmentation certainly reflects upon the everyday life and being of the consumer. Growing influence and part of the market in human life, in terms of an increasing, almost complete, domination of life by the products bought in the market, the consumer's life experiences become also fragmented. In consuming each product, as the consumer eats a frozen dinner, watches television, feeds the cat, washes dirty clothes in the clothes washer, the consumer is involved in an independent, separate task which is only connected in the culture's imaginary, in narratives of purpose regarding a healthy life, a long life, an enjoyable life, etc. But these are indeed narratives that seem to seek a central, unified meaning and purpose for a life that is increasingly fragmented into moments dominated by tasks required by products consumed. In effect, these are modernist narratives, products of the modernist imaginary.

On the other hand, the consumers of postmodernity seem to be transcending these narratives, no longer seeking centered, unified characters, but increasingly seeking to "feel good" in separate, different moments by acquiring self images that make them marketable, likable, and/or desirable in each moment. There is, indeed, a growing disillusionment with committing oneself to long-term consistent goals or characters since there is the feeling that such commitment never delivers the promises of the narrative that required it. As a result, one finds a growing playfulness with the game of simulating and switching images to make the best of each situation the consumer finds oneself in.

Thus occurs the fragmentation of the self. In postmodern culture, the self is not consistent, authentic, or centered. Postmodernists will argue that it never was, in its core, or in tendency, but that in modernity the illusion of such a self was sanctified and, therefore, sought. The postmodern generation has transcended this quest and neither seeks it nor feels a guilt in not seeking it. On the contrary, this ability to switch images and represent different selves, by switching products that represent the images, allowing oneself to lay claim to powerful, successful images is considered as a liberation; freedom from monotony, boredom, and the necessity to conform.

In this fragmenting of self into self-images is also the partitioning of the body into body parts. The media, advertisements, music videos, artistic representations abound with such fragmentation. This reinforces the objectification and commodification of self through signification of self-images to be marketable in different situations. By considering each body part, the lips, the hips, the legs, the chest, etc., separately, each as a means of enhancing a required or desired image, and by (re)shaping or (re)dressing each body part with one's marketability in

mind in each situation, there is both a decontextualization of body parts and their perception as distanced from one's own being. In effect, the distancing is one of one's gaze from one's body. There is, in this process of perceiving each body part as a marketable item (as in the case of models whose hands or feet only are "bought" to be used in advertisements) a standing away from one's body and looking on as the other, testing and scrutinizing oneself from the vantage point of a distanced gaze, the gaze of the other. While this may recall the Cartesian separation of the mind and the body, it is, in fact, quite different. That which is distanced from one's own body is not the *mind* but the *gaze*. Specifically, this is not one's own and independent gaze (as the Cartesian mind is) but the gaze of the *other*. The scrutiny is done from the perspective of the expectations and requirements of the culture to which the body (representing the self-image) will be marketed, for which one's image must be marketable.

In partitioning the body and perceiving each part as an object to be dressed or customized (Moyers 1989) for marketability, the consumer turns to the market, to the products s/he can acquire in the market that represent the same images s/he wants or needs to represent. Not only are products that can be attached to the body purchased in the market but also the customized body parts in terms of plastic surgery, implants, etc. While the general perception is that women get such surgical customization of body parts, the number of men who acquire biceps, calves, etc., is also growing very fast. The separation of categories of gender (feminine-masculine) from categories of sex (female-male), in tune with fragmentations in the signifier-signified relationships, has allowed increasing possibilities for males to express themselves as consumers (Firat 1990 and 1991). These possibilities and the break in the traditional (modern) connections between sex and gender are increasingly represented in advertisements such as those for *Charlie*, the perfume, where women are represented in traditionally masculine roles and men are represented in traditionally feminine roles.

Some students of postmodernity have chosen to call the fragmentations in self representations and the switching of self images the schizophrenic self (Deleuze and Guattari 1983; Jameson 1983). There is a difference, however, in this fragmentation of the self, from the modernist definitions of schizophrenia in terms of an estrangement from oneself and from society (Laing 1969). While there is an estrangement from a self in the postmodern fragmentation of self-images, one cannot really talk of an estrangement from society. The multiple self-images are results of the reading of the society's, the culture's expectations from one. In a culture that does require multiple self-images, not being schizophrenic, in the sense discussed, may come to be categorized as pathological!

In a market exchange economy, all these self-images are, indeed, represented through the products acquired in the market, and, thus, the market becomes the locus of realizing the fragmented self, the fragmented moments of "feeling good." The market

is, itself, fragmented, since it appears to have no central, unified agenda, is construed of many consumers and products, and all relationships in the market are truly momentary; each transaction requiring no deep commitment on the part of the consumer. Indeed, the consumer can do a trial purchase, as long as the buying power is present, and drop the product, or use it momentarily as required in representing an image in one situation, then move to another, with other products. While, thereby, the moments of involvement in the market are fragmented, the consumer's self-images are to be marketable, that is, for the benefit of the market, and these marketable self-images are represented through acquisition of products in the market. In this sense, the market and its fragmentation become the center of all activity and the medium through which all is signified and represented without the appearance of any unified purpose, ideology, or narrative. This may indicate, contrary to the claims of the postmodernists for an end of metanarratives, the existence, at this juncture of the postmodern, of a new metanarrative that is not recognizable with the modernist categories and constructs which historically enabled the perception of existence of a metanarrative. Fragmentation, itself, and its medium, the market, constitute, in fact, this new metanarrative.

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What Are You Doing After the Orgy? or Does the Consumer Really Behave ("Well")?

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"In the middle of the revelries, a man whispers into the woman's ear: What are you doing after the orgy?" (Baudrillard 1990)

In his "Cool Memories" on America, the French writer Jean Baudrillard discusses through his anecdotes some of the problems that contemporary societies of mass consumption are facing: In an endless schema of frustration/gratification, is human desire kidnapped and turned into a hostage without exchange? Aren't we sacrificing something through the model of affluent society in which we are trapped in a vicious cycle of coping up with the others? Isn't our obsession to compare our desires with those of the others reducing the ambivalent character of it to a "natural" and "naked" state so that our only pleasure resides in the act of watching? Isn't this commensurate spectacle leading to the impoverishment of the ambivalent character of human desire? Or better, is ambivalent symbolism itself becoming a parody through the system of signs of social standing as an only way of existing in the society? Are the orgies, feasts, potlatches, in short, ecstatic states of mind where the people could forget their self consciousness and transgress the limits of reason in order to be a part of the other, becoming a simple pornography, a simulacrum, a hyperreality, a reality more real than real? Are our irrational passions continuously captured and programmed into a hyperirrational order? Are we living in a permanent state of surveilled dream?

The first aim of this presentation is to try to investigate the philosophical origins of our obsession to "discover" the human desire and to "colonize" it by turning it into "needs" and "wants". Secondly, I will try to discuss how these "discoveries" and their utilization in their attempt to "educate" people are implicated in the modern societies. Last but not least, I will try to question the "success" of these implications in the process of disciplining the behavior of the consumer and shape the discipline of "consumer behavior". Can we get a "well behaving" function of consumer behavior and does the consumer behave "well" as presupposed by the consumer researchers and mass-media?

PHILOSOPHICAL ORIGINS OF SUBJUGATED DESIRE

The colonization of passion by reason finds its philosophical origins in Socrates and Plato. Pre-Socratic mythological thought is a game of passions, emotions, imaginations, as well as a system of measured reason. Aesthetics and Ethics are not universalized in mythological Pantheon: each of the Gods and demi-Gods represent a part of the excellence and the weakness of human existence trying to find its way through the misty aura of the cosmos. Mythology is a magical dramatization of everyday events, it represents the imaginative appeal of

instantaneous, miraculous and capricious rhythm and harmony of the cosmos (Beckman 1979; Richard 1982).

According to Socrates and his successors, virtue is obedience to reason considered as the right use of the mind. Passion distorts reasoning; it is evil. The mind free from passions is a citadel- a refuge for men who desire. Desire must be subjected to reason:

"Wipe out imagination; check desire; extinguish appetite; keep the ruling faculty in its own power" (Marcus Aurelius in Dawson 1924, pp: 86)

Good man puts himself under the control of intellectual reasoning. The source of all the evil is ignorance. Whoever commits error in the choice of pleasure and pain -that is, good and evil- commits it through the lack of knowledge; knowledge of what eternally exists: science. Science is the basic of ethics because it searches for the divine order of what really exists. The opinions are immoral because they deal with the changing facts, appearances. Facts are not true in themselves, they must be referred to the harmony, which is the mathesis, the order of orders. We can reach scientific knowledge by the education of desire; by the subjugation of desire to the disinterested, and sublimated knowledge in search of eternal truth (Cristaudo 1991).

The real object of science is knowing the necessities which are indexed in the universal order. Logical intelligence is the faculty of thinking the necessities in terms of universal harmony. It is the guide which illuminates our everyday life distorted by passions. The right and duty of the citizens is to know the necessities of every day life, production and consumption, that is, the universal law and order of existence. And one should always keep in mind the "real" necessities during the consumption act (Ostenfeld 1987, Dawson 1924):

"In things that concern the body accept only so far as the bare need -as in food, drink, clothing, habitation, servants (!). But all that makes for glory or luxury thou must utterly proscribe" (Socrates, Encheiridion xxxiii, in Dawson 1924, pp: 64)

In his famous trial, Socrates was accused, by Alcibiades, of being hypocrite by means of an excellent mastering of words in order to justify his passions. Maybe he was right when we consider Socrates' interest in "servants" as a bare need!

Passing through canonical monotheistic religions, subjugation of passion to reason finds its ultimate expression in Cartesian thought. According to Descartes, nature is a pre-set divine order and god gave us the reason as an instrument of understanding it for the general interest of the mankind. Freedom is the

understanding of the divine order of things; the will must follow this order. The more one is inclined toward natural order, the more free he is (Cristaudo 1991).

Nevertheless, man is not only a rationally thinking being; he is an animal machine who lives without the permission of thought. Our passions are generated not from our opinions but from the involuntary movements of human body. They are not good or bad in themselves, but a part of human nature. Hence, desire must be recognized as need in order to be under the control of the reason to promote the general welfare of the mankind.

Another tendency of modern rationalism is represented by Friedrich Hegel (Grumley 1989). According to Hegel, nature itself is a self-realizing consciousness. It is a moment in the accomplishment of the absolute reason- Spirit. In this sense, consciousness of the individual can not realize itself through the knowledge of existing natural facts which themselves are the alienated singular moments of Universal Spirit. Freedom is not only knowing the necessities but also changing them toward the self-realization of the finality of the History.

Hegel (Richard 1980) considers desire as the motivation for passion; the opposite of Spirit. Passion is the particular, multiple, it does not envisage the unity but diversity. Desire ties the man to his body by detouring him from the search of absolute knowledge which should be his real aim. Desire opposes the will to realize the universal reason because it is determined by particular needs. Passion is a "pathos", a sufferance which turns life into destiny instead of driving the subject to the quest of freedom.

THE SOCIAL IMPLICATIONS OF THE RATIONAL MODERNITY

The extension of these two tendencies of modernity in terms of social and economic explanations of human behavior manifests itself in utilitarian (Cartesian) and Marxist (Hegelian) theories. For the first one, human being is a rational being with unlimited needs and wants who has to act in an environment determined by scarce resources. Although needs and wants are unlimited, they are not ambivalent: they are commensurate according to the different levels of utility gained from their satisfaction.

Thus, freedom is full information of what is available; at what cost; and the ability to compare different levels of utility which would be obtained from the satisfaction of wants. Individual has a preference, he knows what he wants; he is capable of consistently ordering his wants from most preferred to less preferred; and he will choose from within this ordering in such a way to maximize his satisfaction (Bohm-Bawerk 1949, McKenzie 1976).

Talcott Parsons (Parsons 1964) extends the utilitarian theory to a social system basis. According to Parsons, the motivation for human behavior is not the pure self-interest. Economic rationality is not a psychological generalization but a value system appropriate to the social system. The goal of the economy is not simply the production of income of an

aggregate of individuals. Besides, the reproduction of the social system as a complex whole of institutionalized value patterns is the essential mechanism of the social system. The first functional imperative of the social system is to maintain the integrity of that value system and its institutionalization. In this sense, households, universities, units of government, churches etc., are in the economy (Parsons 1956).

Freud introduces a new dimension to the concept of desire as a motivating force of human activities: the satisfaction of primary needs such as food, shelter, clothing, etc., is more or less immediate. Desire realizes itself and consumes its realization spontaneously. Nevertheless, this is not true for sexual instinct (libido). Desire stays latent in the unconscious because of the repression of the immediate consumption. This causes a state of frustration and the missing object of desire is replaced by symbolic objects. Desire, which is sexual in nature, transforms itself into a need for these objects. The "pleasure principle" replaces itself with the reality principle: man learns to give up momentary, uncertain, frustrating pleasure for delayed, restrained but "assured" pleasure (Marcuse 1966, Freud 1970).

The discourse on consumption shifts its axis from the principle of "lack" to the principle of "abundance" during the post-second world war period: The organization of the society becomes so complex that the "homo economicus" can no more decide on what is "good" and what is "bad" without the help of educators. This is a dangerous affair however: who would decide about the "realness", "essentiality" of the needs which the consumer is not aware of? There comes our old friend "science" who is accustomed to operate always together with the morality since Socrates. It seems that science and morality are not satisfied by the colonization of the nature outside the "human subject", now they are here for the discovery of what is inside the man. Motivation research was their first galley in their conquest of the dark waters of the non-rational and they are finding more and more complex vehicles. "Conquistodares" continue to colonize the world and their missionary is the mass media.

Of course some old fashioned moralists did not wait to criticize this situation: the motivational analyst and symbol manipulator pooling their talents and millions of dollars at their disposal, were making a fascinating and at times disturbing team. They were shaping the minds by using the occult influences (Packard 1957).

Ernest Dichter comforts: there is nothing to be afraid of. Motivation research is only in the quest of human behavior. Human desire is the raw material it is working with. Human progress is a conquest of the animal within us. The strategy of human desire is the tool of shaping the human factor. No conquest is possible without strategy !

Human behavior can not be explained merely by the rational, conscious acts. Our daily decisions are governed by motivations over which we have no control and of which we are often quite unaware. Modern communication makes the use of emotional

appeals in addition to rational ones in order to sway people. Very few products have purely utilitarian aspects. Motivation research only helps us to achieve a number of deeper psychological goals. Why should we try to repress them? What we need is a new freedom - the freedom to think in new channels. Motivational research is the application of social science techniques to the problems of human motivation (Dichter 1960).

The Hegelian extension of modernity as a socio-economic system manifests itself in Marxism. According to Marxism, classical and neo-classical economic theories reflect an alienated reality. The concepts of utility and exchange value which are taken for granted by these economists are in fact historically determined and socio-economic processes. The scientific method can not restrict itself only to the understanding of the immediate reality but has to operate in order to change it towards the laws of motion of the history.

According to Marxists (Mandel 1969), man is estranged to nature through his act of production. In primitive societies where the division of labor is not developed, men produce use values for their immediate satisfaction. Nevertheless, with the development of division of labor, men begin to produce commodities for exchange. Exchange value becomes a mediator between man and man whereas use value is the mediator between man and nature. This process of objectification turns into a process of alienation; man becomes alienated to the product of his labor.

Total alienation occurs with the generalized commodity production, where the private property of means of production deprives the laborer from his direct labor act. Concrete labor becomes subjugated to the exchange value, the abstract quantity of social labor. This subjugation implies the commodification of labor as labor power. Alienated labor becomes the only mediator for social exchange. Society loses the control of social relations created by itself. Commodity fetishism occults the market relations as a product of human activities and makes people believe that the laws of market are natural laws. During this process of production for pure exchange, the capitalist speculates on creating a new need in another so as to drive him to a fresh sacrifice, to place new independence:

"Subjectively, the extension of products and needs becomes a contriving and overcalculating subservience to inhuman, sophisticated, unnatural and imaginary appetites".(Marx cited in Mandel 1973 pp: 36)

The only possibility of overcoming this distorted reality is the action of historical subject armed with critique.

Criticism has its origins in Post-Socratic philosophy as its cousin positivism. It is the art of explaining the phenomena which are "veiled" by images, appearances. Considered as one of the essential activities of reason, critique opens the way for the rational subject through all spheres of life to make them accessible. In monotheistic religions, it is a way of interpreting the "signs" in order to justify the

supremacy of the "word", "scripture", "the holy book".

In this context, critique is the instrument of reason to reflect on the "objectivity" of the objects of experience. On the other hand, dialectical critique distinguishes itself from the metaphysical critique in the sense that it aims to change the conditions of what is considered to be false or distorted consciousness. It claims to render transparent what had been previously hidden in order to initiate a process of self-reflection to achieve a liberation from the dominations of past constraints.

In its vulgar forms, marxist critique observes the liberation from the alienation in ex-socialist countries (alas !). In these countries working class is not alienated to its labor because the private property of the means of production is abolished. Socialist state takes care of the "essential needs" (i.e. use value) and socialist man does not have "inhuman", "sophisticated", "unnatural", and "imaginary" appetites. Working individual in socialist countries is not alienated to his products; he constructs socialism through his production act: he is a "labor hero", a new man, who realizes his "unalienated desire" in making of history. Each magnificent dam built, each sputnik sent to space, each olympic medal won by an athlete belongs to the victory of the socialism in which each individual is involved as an organic member.

More subtle approaches of critical theory are represented by the Frankfurt School. Adorno and Horkheimer claim the replacement of practical reason by instrumental reason as a result of the developments in culture industry. The alienation caused by the commodity fetishism infiltrates into the consciousness of the working class through the commodification of culture by the leisure market. Since then the self realization of working class through its "praxis", its practice of labor to transform the world becomes a part of instrumental reason. Although the classes exist, there is no more possibility for class consciousness for working class. Public invades private, private invades public. It becomes difficult to make a distinction between the external suggestion and internal desire. The main principle of domination becomes manipulation of desire instead of repression. Hence, instrumental reason forms an impersonal system which becomes independent from all the members of the society, including those in the ruling positions. Either bourgeoisie or working class lose their position as subjects but turn into objects dominated by the technical rationality. Adorno and Horkheimer try to recover rational subject by means of a "negative dialectics", a criticism of commodified objects according to a sublimated art (Bottomore 1984).

Even in this subtle approach of Adorno and Horkheimer, reason as the realization of the universal ideals continues to colonize everyday life. Furthermore, they seem to share the same ideals with the "consumer researchers", in the sense of "educating" and "informing" people about their "true needs". They form a harmonious couple after all, where human boredom needs exigently self-cannibalizing

novelties: critique and interpretation revolutionizes, consumer research rationalizes.

TOWARD A PROGRAMMED SOCIETY?

One of the first resistances to the reason oriented universalist modernity comes from Friedrich Nietzsche. Nietzsche accuses Socrates of reducing philosophy to a discourse which tries to regulate passion for will to live into a unique, universal reality. Philosophy becomes serious, logical, clear and demonstrative with Socrates. Reason analyzes, dissects, systematizes, makes rigid what is hidden in deep. Nevertheless, interior life of man is an act of ambivalent passion rather than being an act of cold objective rationality. Desire is rooted in the life which gives us the will to live. It is the passion to exist. In this sense, it is not possible to rigidize it into the tracks of rationality. To live in harmony with cosmos does not mean to follow the tracks of an assumed universe but to feel the rhythms and pulses of the life. Thus, desire opposes knowledge when it does not accord with life. Desire is pathetic; in the sense of both suffering and sharing. It is the aspiration to deepen the life in our singularity and to be in accord with the flow of the cosmos (Deleuze 1983, Richard 1980).

Georges Bataille (Bataille 1985) pushes further Nietzsche's arguments. Bataille claims that rationalistic realism invades all domains of life with the development of modernity. Endless quest of reason to appropriate external forms into an organized system of words causes the impoverishment of human imagination: words order, but images evoke symbols. What strikes human eyes determines not only the knowledge of relations between various objects, but also a given and decisive state of mind. Therefore, it is not the rational signification of the symbols which make them important for human existence, but their irrational ambivalence.

Following this reasoning, Bataille points out that the rationalization of the human desire as necessities and regulating it in terms of a rational utility frame would be repressing it in order to maintain a certain order which is hypocritical and unjust. How can material utility be the main task of life, Bataille asks, since it is limited to the reproduction and conservation of whatever exists? Man is not only a calculating machine whose goal is to realize benefits, but also an emotional being which realizes itself in the symbolic sacrifice. Sacrifice is a mythical delirium from all selfish calculation and reserve. It signifies an ecstatic exit from the self, a desire to put one's body and mind entirely in a more or less violent state of expulsion. Sacrificial consumption is the elementary form of orgy, which has no other goal than the incorporation of irreducibly heterogeneous elements (Bataille 1985).

Jean Baudrillard (Baudrillard 1970; 1983; 1990) develops similar arguments concerning symbolic exchange. In today's consumption societies symbolic exchange becomes a parody under system of signs of social standing. What we consume in consumption societies is the meaning of the signs. The signs transmitted by the mass media do not

signify a meaning in themselves, but mobilize the collective imaginary to give them a signification. When everybody agrees on the meaning of the sign then it is consumed (consumated). Mass media is an infinite generator of signs without signification. Thus, the main principle of consumer society becomes non-difference through difference, normality through competition.

Mass psychology provokes the people to have what others do not have, but since everybody is doing the same thing, there begins a competition for the "ultimate model". When everybody has it then it is no more "ultimate" but "obsolete". Contrary to the puritan rationalism where the "model" is more or less stable, today's hyperrationalism has to consume its "model" in order to maintain its operation. Planned motivation takes the place of moral responsibility and extends the puritan morality to a hedonistic morality of self-fulfilment. The feeling of guilt after transgression replaces itself with the rationalization: in order to be normal, you have to change- you have to cope with others.

Language of the consumption society is the most impoverished of languages: full of signification and empty of meaning. This empty space is filled by the consumer researchers who always find and operationalize new motivations to replace the obsolete ones. There is no more fixed "human nature" or a referent for marketing. Unlike the modern establishment, there is no more a discourse of reality which serves as a fixed referent in the post-modernity; it is replaced by its simulacra. Social sciences invent new realities when the old ones are obsolete and diffuse them through mass-media: the invented reality becomes real through simulation; a reality more real than real; a hyperreality. In the simulative church where the researchers are the priests and the "deep motives" diffused by the media are the preachings, the masses depend on the mood of the consumer: they do not repress, they do not manipulate, but simply seduce the desire in order to turn it into new tracks of sign.

Thus, the system of consumption society does not reproduce itself according to total order and to the principle of production. Programmed chaos and "catastrophe" becomes the main principle of the system: the system must destroy its order in order to maintain the order. The main principle of this system cannot be power, because power produces the real, it perceives itself as real, immortal, eternal (with the aid of the theories which analyze it, even to criticize it.) Seduction is stronger than power: because it does not need a fixed reference; it is a reversible and mortal process.

Every body is not as pessimist as Baudrillard. According to Michel de Certeau (de Certeau 1984), most of the analyses of the consumer culture are concerned with the representations produced by an ordered system on the one hand, and the modes of consumer behavior adapting to these representations on the other hand. However, these analyses do not take into account what cultural consumer "makes" or "does" during this process of consumption and with the images represented to him/her.

Although de Certeau agrees with the theories of colonization of every aspect of life by systems of production, he goes further and observes a silent, non-violent resistance which survives in the domain of consumption. As the indigenous Indians of South America under Spanish colonizers, who did not resist Christian missionaries but simply adopted the signs of Christianity and subverted them according to their own culture, today's consumers use and transform the meanings of the "products" which are imposed to them. The preachers, educators, popularizers of production may present and diffuse the "technologies" of "how to use" the signs- that is all they can do. They can not control the users since they do not resist and seem to accept these rules. They can act as engineers of the social mind, but this does not necessarily mean that they can fragment and construct it. The masses follow a different way of thinking which is too fugitive and ambivalent to be shaped by the strategies of the managers of the mind (de Certeau 1984).

Michel Maffesoli observes the renaissance of the mythological ecology in the post-modern object. Post-modern ethos does not constitute itself according to a historical project, but in a reappropriated nature, within a shared space, collective participation to the world of objects. We are witnessing a naturalization of culture and culturization of nature through post-modernity. Objects invade spirituality and spirituality invades the world of objects. Our megalopolis become jungles where different objects flow imprevisibly. Post-modern object becomes the "fetish", the "totem" where social body remembers itself. The invasion of the natural and social by the "reified" objects makes any attempt of a planned control by a manipulating subject very difficult. We begin to live in an aura weaved by mystical objects. The world of objects is no more mastered by anybody; post-modern object revenges by returning to ambivalent symbolism. It reenchant the world disenchant by modernity.

Hence, Maffesoli does not observe a programmed system of objects in commodity fetishism. The order of post-modern object is rather like a kaleidoscope which is a programmed uncertainty. It is a diffraction to the infinity. The nature of the post-modern object is not evolutionary, objects revolt against their programmed finality (either in the form of invisible hand or history); they re-evolutionize (in the sense of revolving) their order in order to subvert it. In each order, the "system of objects" has a different logic. It is a nature in a state of permanent creation through its degeneration, instead of an evolutionary nature where the strongest survives.

The masses do not converge toward a "standard package" through consumption but they diverge toward multiplicity. This gives rise to a more complex society which is fragmented and disseminated with a multiplicity of contradictory values instead of homogeneous and linear order of modernity. Post-modernity, like the Baroque, degenerates and regenerates different styles harmoniously through small details (Maffesoli 1990, 1988).

Gilles Lipovetsky (Lipovetsky 1987) criticizes the critiques of consumption society and mass culture and concludes that fashion is not a form of "soft neo-totalitarianism", "repressive tolerance" but on the contrary, the expansion of the public questioning, autonomization of public thought and the agent of individualist dynamic in its divers manifestations. In this sense, fashion is the ultimate phase in today's democratic societies. Lipovetsky also observes a "ruse of reason", a popular wisdom in the crazy orgy of mass culture: collective reason advances by the help of its opposite, the irrational heteronomy of the seduction. As in the rational city of the antiquity whose rationality was formed by a network of egoist passions, autonomous subjectivities develop themselves through seduction and ephemere, critical, realist consciousness develops itself through frivolousness in today's consumption societies.

Hence, with its ambivalent structure, today's individual constitutes and reconstitutes itself in the unordered order of generalized fashion. On the other hand, this unordered does not represent an ideal system, a best of the worlds but a possibility toward a more free, better informed society. Generalized fashion lives in paradoxes: its consciousness favors unconsciousness, its craziness the spirit of tolerance, its mimetism individuality, and its frivolity the respect of human rights.

CONCLUSION

We are living an explosion of the universalist reason and post-modern consumer does not behave totally reasonably. He/she lives in an emotional aura where the borders between the real and imaginary are blurred; maybe in a hyperreality where the ordered reality is replaced by its simulacra. The closed systems of thought which refer to economics, sexuality, politics etc., as the content of reality deconstruct themselves. The referentials come and go like comets in the sky making a general theory of consumer behavior ridiculous. Not only does the consumer behave according to the caprices of fashion; but also its "science". They interactively transform each other towards new fashions in a reversible, baroque cycle of seduction. In the 1950s consumer was "homo economicus"; in the 60s he was "homo sexualis"; in the 70s he was "homo politicus"; in the 80s he was "Rambo"- "homo survivalis" with a manager's suit at the top and naked as a savage at the bottom- with an American Indian mother and a German father. In the 90s there is no reason for not to presuppose that he is becoming a "homo ecologicus". However, these cycles are not "trends". They do not assume a linear development which exclude one another. Rather, each cycle collapses onto and into the other squeezing the other layers to form colorful pieces of quartz.

Last but not least I would like to comment on our position as a social scientist, citizen and consumer in this changing world. Post-modernity gives an end to the dichotomy of order and chaos. We are living in a jungle where order of chaos generates its colorfulness and its peril. It may turn into a joyful spectacle where different species enjoy to share the

same ecosystem or a carnage where the stronger cannibalizes the other. Although we have renounced all "grand responsibilities" implied by a rational puritan morality; we need to develop "little responsibilities", (ability to respond), responsibilities of cohabitation in everyday life depending on ethics of existence, a manner of being which would turn post-modern life into communion rather than cannibalism. Since we are con-damned to live in this jungle; since "we may have come with different boats or canoes, but today we are in the same boat" (Martin Luther King), we have to learn live together.. (After all ?) Hence, what are you doing after the orgy?

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Examining the Descriptive Value of "Ritual" in Consumer Behavior: A View From the Field

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ABSTRACT

The term "ritual" is increasingly used to describe certain types of consumption activities. Ethnographic research examining one such activity -- baseball spectating -- is used to ground a discussion on the accuracy and usefulness of this application of ritual. I argue that three current conceptions of ritual in consumer behavior -- one which examines behavioral traits associated with ritual, one which considers ritual as sacred experience, and one which considers ritual as symbolic action -- do not usefully describe the experience of most baseball spectators. Rather, I speculate that baseball spectating is more aptly described as an experience where the consumer makes profane use of legitimated cultural meanings.

A small group of spectators gather in the bleachers an hour before the game to watch their favorite players take batting practice while they swig beer, eat peanuts, and bake in the sun. Many wear the colors and logo of the home team -- the Chicago Cubs -- on their clothing and some have brought signs to display in front of the TV camera. By 12:45 PM, the bleachers are nearly full while the spectators in the grandstand are just beginning to search for their reserved seats. At 1:05 PM, 15 minutes before game time, an employee of one of the Cubs' corporate sponsors takes the field to throw the ceremonial "first pitch." The Cubs catcher, Joe Girardi, catches or otherwise retrieves the ball, signs it, and returns it to the spectator. Several minutes later, the Deer Plains Community Choir leads the crowd, 35,000 strong, in the singing of the national anthem. As the announcer intones "Now taking the field, are *your* 1991 Chicago Cubs!" the Cubs warm up for several minutes and, at approximately 1:20 P.M., the game begins with the announcer dramatically ordering "Let's [pause] play ball!"

Each play begins more or less the same way: a batter stands beside home plate, the pitcher exchanges signals with the catcher, the ball is thrown, sometimes the batter swings at the ball, and some of these swings connect, leading to some type of play on the field if the ball hasn't gone foul. When the batter hits the ball in fair territory, or accumulates three strikes or four balls, another batter comes to the plate and engages in the same structured activity. When the team at bat accumulates three outs, the teams switch positions and the

sequence of action is repeated. When the team that is losing has had an opportunity to bat nine times, the game is over (excluding tie games). This pattern is repeated during each of 81 games at Wrigley Field over the six-month baseball season, year after year.

In the early innings, most of the spectators pay attention to the game and often respond in unison to the events on the field: as an opposition batter strikes out, they applaud and cheer; when the Cubs' pitcher walks several batters in a row, most spectators boo and some yell comments like "Get him out of there!"; and when a Cubs batter hits a home run, the spectators behave hysterically, standing on their feet, yelling and applauding, pounding each other on the back, waving their hats, fists in the air, "high fives" everywhere.

Occasionally, the spectators will begin a chant, such as "Right fields sucks!" When Andre Dawson makes a nice catch in right field, some spectators bow to him, bending at the waist (a "salome") to show their appreciation. In the middle innings, many spectators become less attentive and discussion moves to problems at work or the various attributes of a nearby member of the opposite sex. After 7 1/2 innings, the spectators rise to their feet and join Harry Caray in singing "Take me out to the Ball Game." Toward the end of the game, if the score is close, attention turns once again back to the game. In dramatic finishes, such as extra-inning or come-from-behind victories, the crowd buzzes with excitement, cheering uproariously when play on the field brings the Cubs closer to victory and grimacing and swearing when they make crucial mistakes. At the end of the game, when the Cubs win, the crowd is jubilant, revelry is in the air; a loss, especially in a close game, brings collective grief as the spectators shake their heads in dismay.

This composite description exemplifies the collective, formalized, repetitive, bracketed (in terms of time and space), dramatic, and emotional qualities that characterize the spectator's experience of attending a professional baseball game, and likely numerous other consumption activities (e.g., other spectator sports, participatory sports, music concerts, theatre, movies, festivals, parades). These attributes are remarkably similar to those associated with the religious or sacred rituals of primitive societies (e.g., Durkheim 1915; Turner 1967). Thus, the term "ritual" has often been used by social scientists, both within consumer behavior (Belk, Wallendorf, and Sherry 1989; Rook 1985) and in other disciplines (Birrell 1981; Cheska 1978; Fiske 1972; Stein 1977; Voigt 1980) to describe such events. In fact, a recently-

¹I would like to acknowledge the constructive comments provided by Sid Levy, Dennis Rook, Helen Schwartzman, and John Sherry on an earlier draft of this paper.

published essay by the past commissioner of baseball (and ex-president of Yale) is devoted to demonstrating the relation between baseball and the sacred (Giamatti 1989).

The purpose of this essay is to examine critically the application of the term "ritual" to describe these consumption activities. Three distinct uses of ritual found in the consumer behavior literature are evaluated in terms of their ability to describe one example of this form -- baseball spectating. None of the three captures the experience of baseball spectators as I have encountered them in my fieldwork. Rather, I speculate that the exigencies of modern/post-modern society lead to a distinct form of group consumption that is profane in character. Ethnographic fieldwork is used to guide these speculations.

THREE APPROACHES TO RITUAL

While the study of ritual originated in the anthropological study of behaviors referencing magico-religious beliefs, within consumer behavior (and elsewhere), the domain of ritual has been extended well past this original conception to include many symbolic actions carried out by individuals, groups, and societies (e.g., attendance at museums, music concerts, and sporting events, making a house a home through decorating, grooming activities, national holidays, collecting). Belk, Sherry, and Wallendorf (1989) generally adopt the traditional view, restricting the domain of these rituals to that which is sacred. Rook (1985), and Tetrault and Kleine (1990) in their modification of Rook's approach, reject this type of limitation on ritual in favor of a definition based on commonly-observed trait characteristics (referred to as the RTK definition). McCracken (1988) adopts a generic definition of ritual as "symbolic action." I will examine the RTK definition first.

Ritual as the Intersection of Behavioral Traits

Definition. RTK define ritual (with slight differences between the two papers) as an analytical class of symbolic-expressive behavior demonstrating certain qualities such as standardization, purposiveness, formality, repetitiveness, drama, bracketing (in time and space), scripted sequences, and group enactment. Through this combination of traits, ritual is differentiated from related types of behavior such as habits, customs, and conventions.

This list of traits provides a useful foundation for understanding ritual but is incomplete. Constructs such as "ritual" are given meaning when they are embedded in a nomological network that describes their antecedents and consequences (Cronbach and Meehl 1955). Except for a brief reference in Tetrault and Kleine (1990, p.33) to the role of ritual in social and/or moral ordering, neither paper attempts to make such nomological connections, leading to a definition that becomes increasingly fuzzy under scrutiny. First, consider that research in both anthropology (Rosaldo 1968) and sociology (Goffman 1967; Wuthnow 1987) has demonstrated that ritual can effectively reinforce social and cultural structures with few if any of these

attributes. Studies on the ritual dimension of the televised Watergate hearings (Alexander 1988) and the television mini-series *Holocaust* (Wuthnow 1987), for example, suggest that ritual need not be repetitive, formal, or enacted in groups. And Goffman's (1968) studies of interaction rituals show how non-dramatic, non-bracketed, mundane behavior acts to maintain the individual's moral order. The trait characteristics aptly noted by RTK serve to enhance the communicative value of ritual (Wuthnow 1987; McCracken 1988), but ritual regularly occurs outside of this domain.

Second, in order to maintain definitional boundaries, RTK attempt to exclude certain behaviors that demonstrate some or all of the listed traits -- habits, customs, conventions -- as non-rituals. Many habits, for example, are formalized, repetitive, dramatic, bracketed and so on. As Wuthnow (1987) argues, attempts at differentiating these actions because of their lack of drama or formality are not convincing, for many supposed "non-rituals" are highly dramatic (consider changing a flat tire on a busy highway) and highly formal (consider the behavior sequences found in riding elevators).

If, following this line of argument, one rejects attempts to limit the domain of ritual through trait characteristics, then a non-religious approach to ritual as pursued by RTK necessarily expands to include all symbolic-expressive action (Leach 1976; Wuthnow 1987). Ritual, in this conception, is not a type of activity that can be isolated, but rather a dimension of all social activity.

Ritual as Symbolic-Expressive Behavior

Definition. As symbolic-expressive behavior, ritual is defined as that dimension of behavior which assists in the communication of socio-cultural meaning. For example, ritual can maintain, transmit, or manipulate meaning (Cheal 1988; McCracken 1988; Wuthnow 1987). McCracken (1988, p.84), following Victor Turner, views ritual as "an opportunity to affirm, evoke, assign, or revise the conventional symbols and meanings of the cultural order." Ritual, then, describes those aspects of symbolic consumer behavior involving action, as distinguished from a focus on the symbolic content of objects.

Baseball Spectating as Symbolic-Expressive Behavior. Baseball spectating certainly qualifies as a ritual according to this definition. Through their actions, spectators develop, maintain, and manipulate many different types of cultural meanings concerning the players, the home team, the baseball park, other spectators, and the game itself.

But while baseball spectating is no-doubt a form of symbolic-expressive behavior, this attribution does not provide much assistance in discriminating this activity from infinite other consumption activities that serve similar communicative functions. If all forms of eating, driving, listening, talking, dancing, wearing, reading, and so on can be considered as rituals based on their symbolic content, the term is of little use in describing any unique qualities of these practices. This definition, then, is too inclusive to usefully

describe baseball spectating relative to other consumption activities.

Ritual As Behavior Referencing The Sacred

Definition. "Ritual" initially emerged as a descriptive term in cultural anthropology to name certain expressive forms of behavior that referenced the cosmological and magical (Malinowski 1954), mystical (Turner 1967), superhuman (Rappaport 1971) and/or sacred (Durkheim 1915). While Rook (1985, p.252) and Tetrault and Kleine (1990, p.31) have criticized the religious version of ritual, viewing it as "myopic" and "jingoistic," these authors seem to aim their criticism toward the traditional definition involving supernatural, mystical entities, rather than toward the broader Durkheimian understanding of religious ritual as behavior that references the sacred. Individuals do not have to invoke cosmological beliefs to engage in sacred ritual, although such beliefs are certainly pervasive. Belk, Wallendorf, and Sherry (1989) use a Durkheimian conception of ritual in their development of the sacred dimension of consumption. They define ritual as those activities that evince sacred properties such as *communitas*, *kratophany*, contamination, ecstasy, and flow. Their definition, too, becomes better specified if expanded to include antecedents and consequences. Here I suggest that the areas of experience that consistently evoke the sacred, treated briefly in the conclusion of Belk, Wallendorf, and Sherry's paper, be appended to their formal definition. (One might also include Turner's concept of liminality or anti-structure in ritual as a creative, generative source of culture and structure (Turner 1969). Space limitations, however, prevent a satisfactory exposition of both of these approaches.)

For "neo-Durkheimians" (e.g., Berger 1967; Douglas 1966, 1970; Geertz 1973; Wuthnow 1987: "neo" in that these theorists focus on order at the cultural rather than the social level), ritual is considered to be a means for managing ontological disorder. Ritual seeks to resolve the tensions that emanate from areas of human life that are difficult to comprehend and incorporate into one's moral order -- that is, one's understanding of "the way things are" and "the way things should be." While most experiences are easily integrated and thus are taken for granted, there are perplexing and troublesome questions that universally arise, arational areas that resist organization through logic or science (e.g., those involving death, nature, goodness, suffering, and social/political order). These areas of ontological disorder -- referred to variously as "chaos" (Berger 1967; Geertz 1973), "dirt" (Douglas 1966), and "social uncertainty" (Wuthnow 1987) -- occur as a universal human condition and are typically managed through culturally-constituted meanings. Humans collectively develop systems of meaning (the "nomos," Berger 1967) that manage the incomprehensible. The nomos joins an individual's values (or ethos) with his or her understanding of existential order (or world-view). This "sacred" system is made up of two components -- a belief system and a system of symbolic action (or ritual) -- that are mutually reinforcing (Geertz 1973). Since the

belief system is culturally created and thus potentially ephemeral, humans must actively validate and empower these sacred concepts. Rituals, then, serve to make concrete and credible the cultural principles and categories that organize the inherently chaotic elements of human life. In addition, sacred rituals are not only a means of comprehending, but also a way of experiencing. Along this line, Belk, Wallendorf, and Sherry (1989) elegantly synthesize the accounts of sacred experience that appear in many of the social science literatures (e.g., Durkheim's "collective effervescence" and Turner's "communitas").

This conception of sacred ritual, in addition to providing a linkage between the variety of metaphysical beliefs found in different societies, also encompasses many of those rituals that often are categorized separately as "secular ritual." For example, rituals reinforce or make concrete ontological organizations regarding the genealogy of animals (food taboos), the social status of the individual in a society (rites of passage), fate or chance (rites of affliction, magic rituals), the boundary between personhood and society (positive rites, national holidays, political coronations), and the structure of interaction in an impersonalized society (conversation openings and closings).

Baseball Spectating as Sacred Ritual. Clues to the sacredness of a symbolic action can be gleaned by looking for indicators of both characteristics of sacred ritual discussed above. As a tool for making sense of ontological disorder, sacred ritual is indicated by the intensity of effort applied to maintain a particular reality in the face of profane threats (Durkheim 1915). And as a way of experiencing the world, sacred ritual is indicated by the achievement of transcendent experience (Turner 1969). In my fieldwork to date, involving interaction with some 300 spectators, I have witnessed only a handful of spectators that may have demonstrated these qualities. (The actual number is somewhat arbitrary since these qualities exist as a continuum, not as a duality, and my demarcation is necessarily subjective.)

One spectator whom I frequently encounter -- Tim -- exemplifies the first indicator in that he demonstrates a profound respect for the set of guidelines that define the proper comportment for a spectator at a game. The rules of baseball, both formal and informal, are treated with the utmost respect. Tim becomes visibly upset when other spectators fail to live up to these rules, often reprimanding them. Tim, and the few others like him, have internalized these rules to the point where they are unquestionable; they are "the way things are," so that any threats to these rules become threats to the self.

While many spectators are just as competent as Tim in their ability to understand and act on these informal rules, very few treat them as Tim does. They do not "live" these rules, but enact them to enhance their consumption experience. Often the rules conflict with other interests and are unhesitantly broken: spectators often stop paying attention by the middle of the game and chat with their friends; they leave in the eighth inning to beat the rush to their car; they refuse to show deference to the Cubs' star players.

Perhaps even more telling, most competent spectators completely accept the inability or unwillingness of other spectators to follow the rules and conventions of baseball. It is my opinion, then, that the vast majority of spectators understand these rules as more-or-less arbitrary conventions that make the game interesting rather than rules that directly connect to their *nomos*. The meanings intrinsic to the game are important only in respect to their ability to enhance the consumption experience; they have little intrinsic value except to the few spectators who, like Tim, use them as concrete reminders/examples of their understanding of the world.

The second indicator -- transcendent experience -- is rare indeed. I have observed several spectators, including Tim above, who appear to lose themselves in the game, who treat the game, its players, and its play with awe, and who evince an intense joyfulness emanating from their interaction with the game. But the vast majority of spectators I have encountered rarely exhibit signs that spectating allows them to achieve transcendence.

There is one potential exception to this statement -- specific situations arise in some games that lead to spectator responses closely matching descriptions of transcendent experience. In fact, it is the presence of these situational emotional responses, in addition to the formality and repetitiveness of the game, that leads many observers to categorize sports spectating as sacred ritual. But these situations are counterintuitive to theories of ritual, and are susceptible to an alternative interpretation. Two types of situations repeatedly evoke sacred-like emotions: dramatic situations and outstanding performances.

Dramatic situations usually occur toward the end of the game when the outcome hangs in the balance. The drama is magnified if the game outcome also has implications for season outcomes. There are certain dramatic structures that tend to evoke transcendent reactions: for instance, come-from-behind victories, games where the lead changes hands frequently, and extra-innings games. For instance, when the Cubs win an extra-inning game on a two-out hit, spectators stand and cheer for several minutes, high-fiving, yelling, shaking their fists, viscerally experiencing the intense feelings of victory channeled through their association with the team.

Spectators also demonstrate these qualities in reaction to exceptional displays of athletic prowess -- for example, when an individual Cubs player makes an unusual play such as a grand-slam home run or has an extended hitting streak. Last season, Ryne Sandberg, who has never been a league-leading home run hitter, challenged for the home run hitting title and finished the year with the highest total. As this side-race progressed and it became clear that Sandberg's home-run hitting performance was truly exceptional, his home runs became events in themselves, and spectators responded to them with an intensity of feeling that they did not express for other players. These emotions were also witnessed when the team accomplished an unusual feat, such as scoring ten runs in one inning without making an out. The spectators

understand that they have witnessed a remarkable performance, and the experience of being close to it, being involved with its happening, gives them a great emotional rush.

While an interesting phenomenon in its own right, the causes of these "sacred" feelings are the opposite of what one would expect if professional baseball spectating were a sacred ritual. As Wuthnow (1987) argues, spectators are most likely to experience a communion with the sacred when the ritual is performed correctly, with all of the participants following the ritual norms. But baseball spectators contradict this expectation in such situations: when action is the most scripted, the spectators are the least involved, but when action is truly unexpected, the spectators may exhibit an emotional reaction that is comparable to sacred experience. Thus, while seemingly comparable to sacred experience, these highly-emotional spectator experiences appear to be of a different type.

Following this argument, baseball spectating may serve as a sacred ritual for a small fraction of those in attendance. But for the rest of the spectators, the concept of sacred ritual as developed above is not an accurate reflection of their experience. Two questions naturally arise from this discussion: If the sacred-like experiences noted above are not sacred, then how can they be described? And, why do so few spectators experience baseball spectating as sacred? The remainder of this essay provides some grounded speculation on these topics.

IF NOT SACRED EXPERIENCE, THEN WHAT?

Rather than sacred experience, the highly emotional situations cited above more closely parallel aesthetic experience (Holbrook and Zirlin 1985). The reason that these situations yield an intense emotional response is that they are so unusual. Spectators have normative expectations for what they think will happen in terms of the ballpark aesthetics, spectator behavior, the level of drama, the performance of the team, and the individual accomplishments of the players. When these expectations are far exceeded, they have experienced something truly out-of-the-ordinary. The spectator is confronted by action that does not conform to conventional expectations, and the spectator's engagement and integration of this action provokes an intense reaction. While it is true that the felt qualities of aesthetic experience are similar to "flow" and thus to sacred experience (Csikszentmihalyi and Robinson 1990; Belk, Wallendorf, and Sherry 1989), I would argue that the two are distinct forms: the aesthetic experience is an encounter within a socially-constructed world of meaning (an "arbitrary code"), while the sacred is an encounter with the chaotic elements of human experience (though this encounter is culturally channeled). Geertz' (1973) distinction between the aesthetic perspective and the religious perspective is relevant here. The aesthetic perspective relies on ignoring everyday experience (the common-sensical perspective) in favor of dwelling upon surfaces, appearances, the contemplation of sensory qualities

without their usual meanings. The religious perspective, on the other hand, moves beyond everyday realities to create a fundamental ordering of the world that "accounts for, and even celebrates, the perceived ambiguities, puzzles, and paradoxes in human experience" (p.108). The next section further develops this distinction.

WHY DO SO FEW SPECTATORS ACHIEVE SACRED EXPERIENCE?

Belk, Wallendorf, and Sherry (1989) observe that the sacred has become increasingly difficult to experience in formal religion and thus is often located in previously profane activity such as consumption. Given the apparent benefits to the individual from participating in these modern forms of sacred experience (Belk, Wallendorf, and Sherry 1989, p.31), it is curious that only a handful of baseball spectators appear to achieve this state. Some speculation is in order. I make use of the distinction between the sacred as developed above (i.e., the individual's moral order or *nomos*) and Berger and Luckmann's conception of "sub-worlds" (Berger and Luckmann 1967, p.138), and borrow from theories of the modern and post-modern to construct a conceptual framework that addresses this query.

While individuals develop a single (though imperfect) *nomos* that organizes and guides their experience, they actually live their lives in many different "worlds." That is, individuals engage in many different interwoven, institutionally-defined experiences. Each of these worlds contains its own internally-coherent system of meaning that, building on the extant *nomos*, helps to organize the reality within the particular institutional framework. For example, a "single" becomes a meaningful event for baseball spectators only through the application of the system of meaning that is the sub-world of baseball. A critical difference between sub-worlds and the *nomos* is that much less subjective inevitability is usually bestowed on the contents of the former (Berger and Luckmann 1967). This is because the individual realizes that participation in sub-worlds is primarily agentic. That is, he or she has (consciously or subconsciously) been socialized and/or chosen to engage in this particular activity as one of many viable alternatives. Participation in this world does not substantiate an objective, external reality, but rather, makes concrete one possible subjective structuring. Based on this difference, one is able to distinguish between objectified reality at the level of *nomos* and the more fragile, constructed reality at the level of the sub-world by observing how the individual reacts to a situation where each type of reality is threatened. In the case of sub-worlds, the individual may lose emotionally satisfying ties, but retains his or her ability to "make sense" of experience. For example, if the game of baseball were banned, most baseball spectators, while perhaps deeply saddened, would still find experience comprehensible and would eventually move on to other activities that would replace baseball. By contrast, the loss of the *nomos* results in the loss of orientation to all experience. Garfinkel's (1967) breaching experiments provide a

poignant example of the anxiety and even terror that occurs when the ontological foundation for social activity is no longer secure. It is this difference between *nomos* and sub-worlds that, I believe, separates that which is sacred from that which is merely desirable, enjoyable, or pleasing. I do not wish, here, to imply that participation in an activity such as baseball spectating cannot become sacred to some individuals, but rather, that such individuals are outliers in that their participation in the game has come to embody their *nomos* when most others understand it to be one of many sub-worlds that are possible within a given *nomos*.

The ability to partake in sacred ritual has declined in the modern era due to a decrease in the potency of the *nomos* and the concurrent proliferation of sub-worlds. A primary characteristic of small, homogeneous, non-market societies is that sub-worlds are virtually non-existent. Knowledge and action are little-specialized so all members view experience through a similar lens. In a "unified life world" such as this, the same integrative symbols permeate all sectors of one's everyday life (Berger, Berger, and Kellner 1974, p.64). Interventions (from other cultures, for instance) that suggest alternative ontologies are incorporated into the current ontological structure (e.g., the cargo cults) or rejected in order to maintain a corporate perspective. Ritual in these societies is necessarily of the sacred form since it serves to directly reinforce the *nomos*.

Alternatively, through the media technologies, mode of education, and cultural mobility associated with post-industrial society, many individuals now learn that their particular moral ordering is one of many that exist in the world. This knowledge leads to a destabilizing relativism where the grounds for believing that "this is the way that things are" become less secure. In addition, the degree of specialization found in modern society -- in activities associated with work, leisure, family, and religion -- has led to a tremendous explosion of ever-finer levels of sub-worlds. The sub-worlds that do exist in small homogeneous societies are easily integrated into the culturally-shared *nomos* as defined by formal religion. Examples of this high level of integration abound in ethnographic work in anthropology. On the other hand, in contemporary Western society, the level at which an institutionally-defined reality is engaged is likely to be many levels below the *nomos* (e.g., *nomos* → leisure → sports → spectator sports → baseball spectating) and is likely one of many alternative sub-worlds that are possible at this level (e.g., football, soccer, hockey, cricket, etc.). Making this array of sub-worlds even more difficult to ontologically manage is the decentering, cluttering, and overlapping of cultural meanings endemic to contemporary Western societies (the "symbolic anarchy" noted in much post-modern thought) that challenges the coherence created within a given sub-world. Thus, at the same time that the modern individual's *nomos* is weakened through relativization, the sub-worlds in which consumption experiences take place have become multitudinous,

ever-distant in their connection to the individual's moral order, and less coherent in their own right.

While numerous sub-worlds are presented to the individual as sacred entities via advertising and elites, it is becoming more and more problematic for the individual to make use of these meanings to form a moral foundation from which to organize experience. One is made aware of their imputed sacred value, but it is increasingly difficult to actually make the leap of faith (i.e., to accept that this is *the* order of things) required to personally experience these realities as sacred. Instead, the individual often ignores this ontological claim, neither believing it nor challenging it, and, instead, makes practical use of its structuring power. This contemporary "strategy" for managing disorder parallels what theorists of the post-modern have referred to as the "aestheticization" of everyday life (Baudrillard 1983; Featherstone 1991). In such a situation, while individuals may treat these sub-worlds *as if* they were sacred, the structure that results is not moral but arbitrary. That is, the structure itself holds little intrinsic meaning for the participant; its value is shaped by its aesthetic and instrumental values (e.g., the pursuit of cultural capital).

Erving Goffman (1959, 1967) provides a complementary line of argument in his recasting of modern secular experiences with the sacred as idolatry (Creelan 1987). He argues that the individualism of modern society leads to a profanation of the sacred where the enactment of a purportedly self-transcending ritual may not be authentic at all. Rather, the ritual serves as cover for self-interested motives (Creelan 1987). The individual performs the sacred rather than engages it:

...individuals are concerned not with the moral issue of realizing these [sacred] standards, but with the amoral issue of engineering a convincing impression that these standards are being realized. Our activity, then, is largely concerned with moral matters, but as performers we do not have a moral concern with them. As performers we are merchants of morality (Goffman 1959, p.251).

Goffman argues that individuals often act as if they are referencing the sacred, but infrequently is this an authentic experience. Rather, the individual manipulates characteristics of the sacred to achieve alternative symbolic-expressive purposes as in a "black mass" (Creelan 1987; Goffman 1967).

An alternative to Goffman's bleak view of the human psyche is to frame the issue in terms of the socio-cultural challenges posed by modernity as outlined above. The existential quest for firm ontological footing has been dealt a severe setback by the pluralism of differentiated, mass-mediated, post-industrial society. The leap of faith required to achieve the sacred requires bounding across an ever-widening chasm. Often, this leap is not possible and one is left "homeless" (Berger et al. 1974).

Examples of this idolatry and/or homelessness are available in the consumer behavior literature.

Contemporary theorists of the sacred have noted that tourist sites, museums, and spectator sporting events are treated as sacred entities (Belk, Wallendorf, and Sherry 1989). However, there is considerable empirical evidence demonstrating that a significant component of the consumption of these vessels of the sacred is not in achieving sacred experience, but, rather, in manipulating these qualities for profane reasons (e.g., status, self-concept). Kelly (1987) observes that a significant category of museum-goers is more interested in documenting their museum attendance through purchases in the museum gift shop than in actually viewing the art that the gifts represent; documentation of tourist experiences (Stewart 1984; Gordon 1986) is so important that sometimes the documentation facilities (photo opportunities, souvenir shops) of a touristed site become more popular than the site itself. And in my own research on baseball spectators, the consumption experience often involves the profane manipulation of the symbolic aspects of a game, a team, a player, or the ballpark. Spectators attend the game to increase their ability to incorporate these qualities into the self (McCracken 1988; Belk 1988), and use documentary techniques (e.g., photos, appearing on television, autographs, stealing vines from the outfield fence) in order to substantiate these claims. I would argue that these modes of possession are typically of the profane form discussed by Belk (1988), rather than of the sacred form as discussed in Belk, Wallendorf, and Sherry (1989).

This essay was motivated by the question: Is it useful to describe baseball spectating as a ritual? I argue that three current conceptions of ritual do not adequately describe the experience of most of the spectators I have encountered. Rather, depending upon one's perspective concerning human nature, these spectators might be viewed in Goffman's terms as engaging in narcissistic and manipulative idolatry, or, alternatively, one could look to Berger's metaphor of "homelessness" to describe their unsuccessful attempts at achieving the sacred in an environment where the sacred is often fragmented and commoditized.

REFERENCES

(References have been omitted due to page-length constraints, but are available from the author upon request.)

Halloween As A Consumption Experience

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INTRODUCTION

Over the past decade, consumer research has broadened its domain of inquiry to incorporate an increasingly diverse set of consumption phenomena. Included among these more recently investigated topics are cultural festivals such as Christmas, Easter, Thanksgiving and Halloween. Examining cultural festivities as consumption phenomena can provide novel insights into consumer behavior, because such festivals often make manifest the more general values underlying consumption. For example, Belk's (1987, 1989) inquiries into the celebration of Christmas made evident the commercialism and materialism present in aspects of this holiday. An analysis of adult consumers' narratives about the meaning of Christmas detected both sacred and secular consumption themes (Hirschman and LaBarbera 1989). A gift store ethnographic study conducted by Sherry and McGrath (1989) revealed the gift-buying customers associated with the holiday, as well as the enlarged role women play in fulfilling Christmas consumption rituals. Similarly, the consumption rituals and meanings surrounding Thanksgiving have been extensively documented by Wallendorf and Arnould (1991).

Our interest in the present study focuses upon the festival of Halloween. As Belk (1990) notes, Halloween in several respects appears to represent oppositional consumption patterns as compared to Christmas (and Thanksgiving as well). For example, there is no communal family meal, rather children independently go from house to house in search of candy. In contrast to the openness and informality of interactions during Christmas and Thanksgiving, Halloween is characterized by secretiveness and the formal "masking" of personal identity.

In the present inquiry we present an ethnographic account of the Halloween consumption experience. The use of an interpretive method such as ethnography is "intended to provide a rich portrait of the phenomenon so that the reader not only learns inputs and outcomes but also gains an understanding of the texture, activities, and processes occurring (Belk, Sherry, Wallendorf 1988)." It is the hope of the researchers that this inquiry will spur further research on Halloween consumption activities and consumer research on American holidays in general.

The paper is divided into four sections. The first section discusses the history and background of the Halloween festival. Methodological and interpretive issues are addressed within the second section. The third section describes the various ethnographic sites used to construct the interpretation. This section is further divided into retail Halloween stores and actual festival sites visited prior to and during Halloween. Emergent themes are discussed in the fourth section.

The History of Halloween

Few Western holidays have a more paradoxical history than Halloween. Halloween is the eve of one of the most important feasts of the church year--All Hallows Eve--solemnly observed by Roman Catholics, Anglicans, and Lutherans (Hatch 1987). In many countries of Western Europe, such as France, Spain, and Italy, Halloween is observed as an austere religious occasion with extra masses and prayers at the graves of deceased relatives and friends; but in the British Isles and, especially in the United States, Halloween is primarily regarded as a night of merry making, superstitious spells, fortune telling games, and pranks (Hatch 1987). Thus, Halloween is a curious mixture of the religious (sacred) and the secular (Belk, Wallendorf and Sherry 1989; Hirschman 1988).

In the second century B.C., the Celtic order of Druids ended the year on October 31. The Celts believed that on October 31 the Lord of the Dead assembled the souls of all those persons who had died in the previous year; the spirits of the departed were allowed a brief visit to their relatives. The departed souls would play tricks, so the Druids attempted to appease them with sanctices (Hatch 1987). This tradition was continued in medieval Europe, where black cats were sacrificed in ritual acts, in the belief that they were disguised witches.

During the ninth century, Pope Gregory IV placed Halloween on the church calendar, decreeing that the day and vigil be generally observed to honor numerous martyrs and, eventually, saints on a common day (Hatch 1987). By the end of the 15th century, Halloween was believed to be the gathering time of unsanctified spirits. Many believed that witches flew on broomsticks accompanied by their black cats and that the Prince of Darkness mocked the feast of the saints with unholy rites (Hatch 1987). These beliefs continued during the Colonial period in America, culminating in the campaign against witches in Salem, Massachusetts in 1692 (Hatch 1987). Halloween folk customs continued to flourish in Ireland, Scotland, Wales, and parts of England well into the 18th century, where pranks and mischief on October 31 were common in rural areas of the British Isles.

Nevertheless, widespread observance of Halloween appeared relatively late in the United States. Most of the early settlers, the majority of whom were Protestant, did not observe Halloween. In pioneer days, Halloween practices were scattered and regional until the great Irish immigration in the 1840's. The Irish brought with them not only the religious observance of Halloween, but also their folklore remnants of Halloween which included the traditional mischief (Hatch 1987). By the late 1800's, Halloween had become a national observance in the

United States, characterized by games, divinations, parties, and especially the children's custom of going "trick-or-treating" dressed in masks and costumes.

By the 20th century, Americans became less tolerant of pranks, which often descended into vandalism (Hatch 1987). Community Halloween festivals, sponsored by local merchants, civic groups, and schools (especially PTA's) have done much to curtail the formerly widespread vandalism. The folk vitality of witches, divinations, and the black arts have long receded into the past. But the decline in its significance has not affected small children, who still enjoy ringing door bells and shouting "Trick-or-Treat" (Hatch 1987).

The Role of Costumes

Perhaps, the most visible part of Halloween as a consumption festival is the number and variety of costumes worn each year. Costumes, like clothing, are powerful social communicators (McCracken 1988, Solomon 1983). Much consumer research on clothing over the last ten years has centered on the symbolic value and social meaning of clothing (Solomon 1983). It is not our goal here to discuss this literature in depth, but only to advance three concepts that are important to note in the study of Halloween. A costume is a *transformation* device that allows the individual to change his or her own identity (Dichter 1964). The choice of a costume allows the chooser, (who is not always the wearer), a form of *self-expression* and *creativity*. The self-expression enables the chooser to express his or her own individuality to those around him/her. Creativity allows one to strive for *exclusivity* of the costume and therefore establish the individual's unique identity.

METHOD

Our research team consisted of four women and one man. Subsets of two researchers selected various Halloween stores and festival sites to investigate in detail. We adopted a modified version of Sherry and McGrath's "one-researcher-one-site" principle. First, due to time constraints we felt that immersion in separate field sites would generate more detail. Second, we wanted to keep interference with the daily life of the stores at a minimum (Sherry and McGrath 1989). Therefore we triangulated across sites through regular discussions of our observations and interpretations.

In order to gain an in-depth understanding of Halloween as a consumption experience, the researchers had to balance their competing interests as former participants and as researchers when observational settings were chosen. In accordance with the researchers' background, observational settings were selected based on typical Halloween interaction points of middle class, suburban families as well as settings that would provide the research team with a multifaceted view of the Halloween experience. These settings were divided into two categories: retail stores where consumers purchased Halloween paraphernalia in order to participate in the consumption experience and festival sites where the participation occurred.

The stores and sites were patronized mainly by upper-middle class consumers. A smaller representation came from the lower-middle class. The study began in mid-October and ended on October 31, 1990. Unlike other holidays such as Christmas, Halloween does not allow for significant post-holiday investigation (Sherry and McGrath 1989). Stores were observed 3 to 4 times at hour-and-a-half intervals. Festival sites were observed between 1 to 3 hours according to site time constraints. The stores and festival sites are located in suburban communities in the northeastern United States. Collection of data occurred through observation, participation, interviewing, and photography. Data were recorded both in field notes and journals.

Retail Stores

During the course of the study, we visited four retail stores -- Everything Halloween, Party City, McCrory's and Lynn's Hallmark. These are described below:

Everything Halloween

Everything Halloween is one of many stores crowded into a suburban shopping mall. It rents its space temporarily for the Halloween season. After Halloween it is transformed into another seasonal specialty store. As the name implies, Everything Halloween contains different types of accessories to make the holiday complete.

Ambience Upon entering the store the consumer is greeted by a mechanical vampire in a cemetery setting. Eerie howls emanated from the tombstones. One is immediately immersed into the Halloween atmosphere. The 13,000 square feet of selling space overwhelms the customer with merchandise. Items are found hanging from the walls, display cases and centrally located islands. Consumers throughout the store frequently handle the props, as they are easily accessible.

Merchandise Everything Halloween has a wide variety and deep assortment of goods. The merchandise ranges from accessories to fully complete costumes. Packaged items include masks, wigs, make-up, stockings, and colored hairspray. Also available are fake fingernails, swords, pitchforks, and eye patches. Clown, monster and animal costumes are among the few disguises available for children. Adults can choose from jailbirds, vampires, bellydancers, and french maids. Prices range from a few dollars to one hundred dollars.

Party City

Party City is one of five stores located in a strip mall on a state highway in New Town. It exclusively carries items appropriate for a party including streamers, balloons, paper plates, and invitations. As holidays approach, sections of the store are dedicated to specialty merchandise.

Ambience Due to the importance of sales during the Halloween season, Party City dedicated a third of its store to Halloween goods. Merchandise filled the shelves, ceilings and walls. Salespeople helped customers try on costumes. Creaking doors and monster howls were heard throughout the store.

Merchandise Party City had an extremely large assortment of costumes. Instead of displaying the actual costumes, small pictures of the ones available are hung on the walls. Consumers choose a costume from these pictures and a salesperson then retrieves it from the storeroom. In contrast, accessories are openly displayed in large boxes for consumers to choose from, including fake blood, clown shoes, necklaces, and press-on-nails. Prices range from a few dollars for accessories to fifty dollars for a complete costume.

McCrorry's

A third retail site was McCrorry's, a well known discount chain store located in the Caravelle Square Mall. This particular store is approximately the size of a small supermarket, or 26,000 square feet. It sells everything from clothes to housewares to toiletries to candy. As with other retail establishments, McCrorry's has sectioned a large area specifically for Halloween merchandise.

Ambience The store displays several eye catching signs showing passers-by the sales and low prices McCrorry's has to offer. From the window sign, it is obvious that Halloween is approaching. The entrance is filled with candy displays, reminding customers of the advent of trick-or-treaters. From the appearance of the store it is evident that the costumes have been rummaged through repeatedly.

Merchandise For children, costumes consist of a plastic or fabric body cover and a hard plastic mask. These include cartoon characters such as Mickey Mouse and the Ninja Turtles. Adult costumes featuring a Devil and a French Maid, among others, are constructed of flimsy fabric. Accessories, such as costume make-up and colored hair spray, are also offered to complete self-designed costumes.

Lynn's Hallmark

Lynn's Hallmark, which is also located in the Caravelle Square Mall, is a few stores down from McCrorry's. It is a specialty store known for its high standard of quality, featuring exclusive greeting cards and gifts.

Ambience Lynn's Hallmark, gives a feeling typical of any Hallmark store - a comfortable, at home, cozy feeling. Everything in the store from the layout, merchandise, and salespeople notify the customer of its high quality image. When a holiday approaches, it is evident by the specialty decorations and the goods filling the store.

Merchandise There is a wide variety of goods ranging from glittery masquerade masks to baby diaper covers with ghosts on the backside. Consistent with the store's image, much of the merchandise is geared toward party favors in attractive colors and designs. Many items emphasize safety features such as ease of visibility and breathing. The masks are constructed of a soft cushiony material to prevent children from hurting themselves. Other merchandise available emphasizing safety includes glow-in-the-dark necklaces and light sticks.

Halloween Festival Sites

In addition to making observations at retail stores, we also observed the celebration of Halloween at five sites.

Caravelle Square Mall

Halloween Show "Halloween Spooktacular"

At 3:30 pm, October 31, 1990 in the Caravelle Square Mall, thirty costumed children aged 3-6, and their mothers gathered to watch the "Halloween Spooktacular", sponsored by the Caravelle Square Mall store owners. The stage was a haunted house. A magician's assistant in costume appeared for the performance and introduced the show. The magician, dressed in a tuxedo and white face, wearing a bone through his head, did magic tricks for the audience. After about 20 minutes, the magician went backstage. The assistant gave the audience trick-or-treating safety tips, such as: "always go out in groups", "cross streets at the corner" and "never eat candy until your parents check it first". Then the magician did a few more tricks and a costume contest was held. The two winners, who wore a jack-in-the-box and bride costume, received a \$35 and a \$20 gift certificate good at any store in the mall. After the show, the children went trick-or-treating from store to store.

At 7:00 pm there was another show. The format was the same except Everything Yogurt, a frozen yogurt store, gave a free yogurt to each child in costume. At this performance, there was a much larger crowd of about 100 children aged 5-11 and their mothers and fathers. After the show most children ate the provided yogurt; few went trick-or-treating in the mall.

New Bridge Pumpkin Carving Display

Along Route 615 in New Bridge, is a large farm owned by Bob Spinelli. Each year Bob and his family put together what they call the "Nite of the Jack-O-Lantern." His family and friends carve out 800 pumpkins and display them in the field alongside the road. Bob's children dress up in costumes and greet the parents and children who come to see his display. Bob receives pleasure from entertaining neighboring families and putting smiles on children's faces. People are intrigued by the seemingly infinite number of pumpkins. The event has become so popular that police are now required to direct traffic. Bob recently has opened up a stand to sell Halloween paraphernalia in order to subsidize the cost of the presentation.

Trick-or-Treating

To observe trick-or-treating, a female researcher (in costume) accompanied her female cousin and four of the cousin's girlfriends (age 11) on Halloween. The trick-or-treating observed took place after school from 4:00-6:30 pm, in the town of Kent which is located in the central part of the state. Kent, population 21,723 is comprised of upper middle class families predominantly of Jewish ethnicity. This year the town council had imposed a 6:00 pm curfew for children trick-or-treating. If accompanied by an adult over 20 years of age, children were permitted to stay out later. The trick-or-treating observed took place in one of the many housing developments in Kent. In this development, there were approximately 75 trick-or-treaters ranging in age from 5-13 years. Smaller

children were accompanied by adults even in the daylight. Older children (aged 10-13) toured in groups without a chaperone. About half of the houses approached had no one home. Several homes were decorated with some type of Halloween paraphernalia such as pumpkins, pumpkin leaf bags, and Halloween window posters. Two police cars were observed patrolling the development during the course of the evening.

Halloween Parade and Party at St. Peter's School

A male and female researcher observed a class of 19 first graders at a middle class Catholic elementary school in New Town. The principal had previously granted permission to the researchers to observe the class. Halloween was treated as a special day for the children with a parade and party planned. An extra long lunch hour gave the children the opportunity to go home and change into their costumes and allowed the parents time to come home from work and bring their child back to the school. At school, preparation was underway for a Halloween parade through downtown New Town. The children assembled in the street for their short trip through New Town while parents videotaped, took photographs, or watched their progeny from the sidewalk. The children proudly pranced through New Town with a police car, marching band, and color guard leading the way.

Upon their return, the children raced into the school knowing what was waiting in their classroom. While they were gone, parents had decorated the classroom and distributed candy to the desks of each child. On each child's desk was neatly placed a small bag of candy, a juice box, pumpkin napkin and a large Halloween cupcake. As the class ate, the teacher informed them that safety was the most important concern in celebrating Halloween. The teacher read them a list of safety rules and told the children that some of the parents had a surprise, a Halloween game which helped the children with letter recognition. Each child was rewarded with a Halloween mug and a rubber skeleton. The school bell rang and a stampede of Ninja Turtles, princesses, and other assorted characters poured out of the tiny school and onto the streets of New Town. Trick-or-treating started immediately with a flood of children arriving at the residential houses nearest the school.

Brock Farms Garden Center

The Brock Farms Garden Center was observed by a female researcher acting as a passive observer. Brock Farms is a garden center located on Route 6 South in New Town. The premises consist of a building in which fertilizers, tools, and other garden accessories are sold, a greenhouse which contains plants and flowers, and a large outdoor area with shrubs, trees, and lawn ornaments. On the day visited, Brock Farms was decorated with Halloween icons, and a witch and a pumpkin stood next to its outdoor sign. On the roof of the building was a large inflated pumpkin and scarecrow. The front of the building was decorated with pumpkins, scarecrows, and skeletons. A gift section inside the building had been transformed into a Haunted House. To the left was a graveyard with skeletons and tombstones that led to the entrance. Eerie howls and spooky noises played on a

loudspeaker. Upon entering the Haunted House, one is struck with the overabundance of Halloween paraphernalia, featuring devils, skeletons, and vampires; bats flew across the room; smoke wafted through the air. A table carried candles of various types: ghosts, pumpkins, and witches. A mechanical Esmeralda the Fortune Teller with a crystal ball was reduced from \$1299 to \$899. Another table had ceramic pumpkins costing \$9.99-\$16.99.

EMERGENT THEMES

Commercialization

Due to the commercialization of such holidays as Christmas and Easter (Belk 1987, 1989), it was perhaps inevitable that Halloween would follow. Retailers and manufacturers, always searching for novel markets, have discovered that Halloween offers such an opportunity. For example, Sun Hill Inc., a holiday product merchandiser, after twelve years of successful Easter product launches, needed to find expansion opportunities elsewhere. Sun Hill first tried the glutted Christmas market and "got our heads beat in" (Grimm 1990). When brainstorming about possible pumpkin products, the company executives decided, "Nobody is going to put another pumpkin out in their yard unless it's the biggest one they ever saw." Thus, the jack-o'-lantern leaf bags were created. With six million units sold since August, (fifteen million dollars in retail sales) the future of this innovative new Halloween product seems quite promising (Grimm 1990).

In addition to merchandisers that specialize in holiday products, others in the marketing channel are taking advantage of the trend towards the commercialization of Halloween. Halloween merchandise has always been prevalent in such traditional retailing institutions as Hallmark, Spencers and Caldor. With the high degree of marketability of Halloween, these retailers are becoming overshadowed by specialty stores such as Everything Halloween. The store markets itself as a "one-stop Halloween Shopping Center", with convenience its most salient attribute. It has emerged as a dominant competitor within the Halloween industry.

Even seasonal retailers such as Brock Farms Nursery are trying to capitalize on profitable out-of-season opportunities. Brock's haunted house, which contained everything from ceramic pumpkins to ghost candles to mechanized devils, effectively capitalized on consumers' desires to appropriately accessorize their celebration of the festival.

Halloween commercialization is not only evident in the retail sector, but is also present among consumers as well. For example, each year Bob Spinelli and his family organize a pumpkin carving display on their farm. With over eight hundred jack-o'-lanterns, the Spinelli's pumpkin festival attracts huge crowds of parents and children. Adjacent to this altruistic endeavor, the Spinelli family sells Halloween paraphernalia. Even though the Spinelli's create this jack-o'-lantern display for charitable

reasons, they also do so in hope of realizing a financial profit.

Perhaps the most blatant examples of Halloween commercialization are the marketing efforts of some beer manufacturers. Brewers need to generate additional sales in October, traditionally one of their slowest months (King 1989). As a result, brewers have been looking toward the Halloween festival in an effort to boost beer consumption. For instance, Miller Brewing Company now sells its Lite brand with special glow-in-the-dark Halloween labels. This past season Coors was promoted in stores and bars by a character called Count Drakula. Anheuser-Busch spent 1 million dollars on its "Fright Night" campaign and gave away free paper masks to bar patrons (King 1989). As Christine Lubin, a representative of the National Council on Alcoholism, says, "Beer companies try to make drinking a part of the [Halloween] celebration (Farhi 1989)." Thus, from its inception as a sacred festival in Europe, Halloween in North America has evolved into a secular event driven by commercialization.

Enforcement of Gender Roles

A second emergent theme was that of gender roles, which were apparent in many aspects of Halloween consumption. Evidence for this is provided by examining the various costumes available to the different age groups. Each of the party stores visited was found to have the costumes segregated into three basic groupings. The first grouping was pajama costume sleepwear for toddlers two to four years old. Such costumes included Devil, Bunny, Pumpkin, Circus Clown, and Yellow Chicken. These costumes were basically genderless as either sex could wear them. The second grouping was for ages five to eight years and provided gender separation in contrast to the first group. Such costumes included Mouse Girl, Pirate Boy, Devil Boy, Lil' Red Riding Hood, and Child Princess. These costumes were very gender specific and clearly alerted the consumer as to which gender was to wear them. This was evident in the costume titles which included the word "boy" or "girl." For example, there were not just pirate costumes, but rather Pirate Boys. In addition, costume characters were offered that were clearly male or female such as Princess. The last grouping was targeted at pre-teens. For girls this included French Maid, Suzy Starlet, Slave Girl, Cover Girl, and Rock Star. Costumes for boys included GI Soldier, Greaser, Cowboy, Law Enforcer, and Combat Hero. In this age group the genders were segregated not only in their themes but also in their design. The girls' costumes were quite skimpy, even sexy. They featured short skirts, lace, sequins, and bright colors. The girls depicted on the package also wore a lot of makeup. In contrast, the boys' costumes were not skimpy, and the boys in the pictures were fully clothed. Their costumes were mainly in dark colors, such as black and khaki, and the themes were of a male nature, that of the hero type. Overall, it is apparent that as the child's age increases, costumes move from androgynous to gender specific. This pattern was also present in Belk's (1990) Halloween study.

In addition to costumes enforcing gender roles, it is also apparent that both parents and peers socialize children into "appropriate" gender roles. One researcher observed this overtly in the Everything Halloween store. As a mother and daughter were shopping for a Halloween costume, the girl exclaimed, "Mom, I want to be a Ninja Turtle!" The mother responded, "No honey. That's a boy's costume." Often when parents dress up a young son and daughter, they have them dress as the same theme; the son as the male part and the daughter as the female counterpart. For example, one researcher observed a Mickey and Minnie Mouse pair. Another researcher saw a Tarzan and Jane.

Such gender socialization carries into adulthood and even contaminated the researchers. At a costume show in the Caravelle Square Mall, a researcher saw a child dressed in a pink bunny costume. The researcher said to the child's parents, "Your daughter looks so cute." The parents responded, "Thanks, but that's our son." Due to the researcher's socialization, she instinctively assumed that the child in the pink costume was female. From the evidence cited, it can be concluded that the enforcement of traditional gender roles during Halloween is perpetuated by parental preference and further reinforced by costume manufacturers.

Self and Self-Image

As children become older, their costumes, like their clothing, serve as powerful social communicators, especially to other children. Within our observations the age group of 7-12 is where the individualistic experience of Halloween begins. Children in this age group have more of a say as to what they are going to wear, where they are going to go trick-or-treating, and who they are going to go with. We found that children of this age group want to dress in similar costumes and trick-or-treat together. This occurs because children want peers to accept their social selves.

Children also have a strong need for affiliation and belongingness; they desire love and acceptance from their social world. The need for acceptance from peers was evocatively demonstrated by one of the trick-or-treaters we observed. This trick-or-treater was dressed as a member of a professional football team. But, she and her friends were dressed as infant versions of the players similar to "Baby Muppets." The trick-or-treater pulled the researcher aside before she began her quest for candy. She asked, "Do you think people will recognize who we are? Do we look like 'Baby Giants'?" The researcher was not sure, so, she suggested that the girls write the player's name on a piece of paper and tape it on their backs. Therefore, their costume "identities" would be recognized. The trick-or-treaters were concerned with performance risk; the consequences of a product that did not perform, behave, or appear as planned or promised. The performance risk here was that the costumes would not be recognizable (DeVault and String 1989).

Tremendous peer pressure exists at this age to conform to group norms. Children do not want to be stigmatized by association with an unpopular

character. The researcher observed an incident where one girl would not walk down the street. Instead, she walked in the opposite direction. When the researcher asked the girl where she was going, she responded, "I don't like that street. I like the houses down there better." The researcher asked another trick-or-treater why the girl would not walk down the street. She said, "She's afraid of the 'cool kids' will see her, see the 'big shots' are down there". The trick-or-treater defined a 'big shot' as "someone who is older than us and thinks they're cool". The researcher noted that the "big shots" were trick-or-treating without costumes. Eventually, the girl was coaxed to walk down the street with the others. When they encountered the "big shots", she was intimidated. She wrapped herself in a blanket in hope of concealing her costume. Her goal was to disassociate herself from the group she was with. The trick-or-treater justified her actions to the researcher by claiming, "I'm cold."

College and high school students also want to be accepted by their peers and try to accomplish this by dressing in similar costumes. When a group of eight college roommates was asked if they had considered dressing up, they responded, "We want to dress up as a group." They had made a list of themes which included all eight of them. Their choices included Santa Claus' reindeers and Snow White and the seven dwarfs. In the end some of the girls decided not to dress up, so none of them did. A group of high school girls was observed at Everything Halloween saying, "As long as we go as the same thing that will be cool." Performance risk is reduced when a group of people dress together, instead of the individual dressing by himself/herself.

Costumes allow children to express their individuality by allowing them to pick out their own costumes. It also fosters creativity. The child can adopt a variety of identities, utilizing them as an outlet to exhibit self-aspirations or to imitate role models. At St. Peter's grade school, a little girl was overheard saying, "I want to be a cheerleader just like grandma. She was one when she was little." Party store managers also stated that children were buying costumes which represented their aspirations. For example, girls in elementary school were observed buying cheerleading costumes since this was something they aspired to be in high school.

Costumes can also act as a reinforcement of a couple's identity by emphasizing the fact that they are a couple. In Party City, a couple was observed examining costumes which were complements. They selected Napoleon and Josephine, a readily identifiable couple.

Vicarious Consumption and the Extended Self

Belk (1988) suggests that we are what we have, i.e., possessions contribute to our sense of self. This he terms the Extended Self. Consumers learn, define, and remind themselves of what they are by their possessions. We seek to express ourselves through possessions and use material possessions to seek happiness, remind ourselves of experiences, accomplishments, and other people in our lives, and

even to create a sense of immortality after death. In addition to the use of commonly purchased consumer goods as possessions comprising the extended self, Belk considers several frequently used but seldom researched types of possessions: collections, money, other people, pets, and body parts.

Parents' sense of self also is shaped by their possessions. In most Western cultures, children are viewed and treated as possessions by their parents (Belk 1988). Our laws concerning adoption, in vitro fertilization, and divorce all consider the child a possession that should be awarded to some group or person. Children, therefore, as possessions enhance and define the extended self of their parents (Belk, 1988). Children provide parents with a strong vehicle to advance their own happiness, to remind them of their own experiences (nostalgia), and to live on forever (immortality). The manner in which parents do these things is through vicarious consumption.

Veblen (1899) noted that one can vicariously consume through one's dependents, so that their consumption enhances one's own extended self (Belk, 1988). The concept of vicarious consumption in 1899 is not much different than that of today. We gain in self esteem from the ego enhancing consumption of those who are part of our extended selves. If our friend lives in an extravagant house or drives an extravagant car, we feel just a bit more extravagant ourselves. The success of a spouse, who is seen as an extension of the self, raises one's self esteem in much the same way as personal success (Belk, 1988). Similarly, the accolades and attention a child receives for a costume at Halloween raises the parents' self-esteem.

Three sub-themes were constructed from the ethnographic evidence using the concepts of vicarious consumption and extended self. These sub-themes were redundant across sites and researchers.

- (1) Children are viewed as possessions at Halloween time. They are dressed up and displayed for the self-satisfaction of the parents.
- (2) Parents, mainly through costume selection, live vicariously through their children. The parents' views are either directly or indirectly impressed on the child's choice.
- (3) Parents view their children as a reflection of themselves. A child's actions are a direct reflection on the parent.

These three sub-themes exist subtly between parent and child all year round, but, during Halloween, they are more evident and outstanding. Many children are treated like dolls that are to be dressed up and displayed to other doll dressers for their admiration and envy. Some mothers turn Halloween costume contests into Halloween costume competitions, and their desire to win at all costs rivals that of fathers at Little League baseball games. The notion of Halloween being a time for children to innocently disguise themselves to acquire free candy is lost in the heat of the battle for the prize of best costume. This

was vividly evidenced at the Caravelle Square Mall's Halloween Show and Costume Contest.

Annie is seven years old and dressed in an elaborate jack-in-the-box costume. She had a court-jester-like costume beautifully designed and handmade. Around her was the box which, too, had beautiful designs placed on it that matched those of the costume. "My mom made me the costume and she said I had to wear it. I wanted to be something else." Annie looked sad in the costume. When asked to take a picture, Annie's mother sung out a "yes" and boasted that she had spent days making the costume for her little girl.

The only satisfaction that Annie received from her mother's costume was when she won first prize. A hundred people clapped and cheered. Annie had won a \$35 gift certificate, yet she still looked sad. In front of the stage stood Annie's mother beaming for all to see. It was Annie's mother who had won the contest and the gift certificate at the expense of her child's own happiness. Another researcher observed an even more poignant example:

Walking through the Caravelle Square Mall, I noticed a large TV stand on wheels that apparently had a fish tank attached to it, judging from the seaweed on and inside the tank. Curiously, as I approached the tank, I saw something move inside. As I stepped closer, the owners of the tank turned it toward me. A sign read "Our Pet Goldfish." Inside the tank to my surprise was a small child whose movement was restricted by a large goldfish costume. The costume covered the child from head to toe with only his face visible.

These parents had dressed their child up like an animal and were now treating him like one. The child thrashed around in the tank trying to break free from the costume much like a dog does when covered by a blanket. The child screamed and cried. He tried to get out of the tank only to learn that the tank walls were too high for him. After a while, the child was released from his cage, and his parents entertained questions on the design from other interested parents. Asked for a picture by a bystander, the parents quickly dumped the child back into the tank. The child wailed out and sobbed uncontrollably until the mother said, "Be a good boy and let the nice woman take the picture."

At Halloween some parents take the opportunity to live vicariously through their children as a way of reliving their own past. Parents' nostalgia was the driving force behind some of the costumes children were wearing.

Becky was in first grade and was dressed in a 1920's flapper costume. "Mom wanted me to be a flapper because when she was young she was a flapper too." Becky's mom stood beside her playing with and fussing over her costume

while Becky appeared disinterested. (St. Peter's School)

Becky was one of many children, who when quizzed why they chose that particular costume, replied, "Mom wants me to be _____." The children were like puppets through which their parents briefly tried to relive their own youth.

The selection of the costume was the easiest and best way that a parent could live vicariously through a child. Since the parent was paying for the costume, he or she had a lot of say in what was or was not purchased. Parents used two tactics to persuade youngsters to choose the costume the parent wanted: direct intervention and indirect intervention. By way of *direct* intervention, the parent would, through praise, elevate one costume above the rest and point out limitations or faults in the rest of the selection. This tactic did not appear to work too well. Only young children could not see through the parents' attempt to influence choice. Perhaps the ultimate example of *indirect* intervention was when the parent made the costume. Once the costume was made, the child had to wear it. Other parents influenced their children's costume choice indirectly by taking their children to costume stores that had costumes consistent with their own tastes. The price, the selection, and the quality of the costume varied depending on the store. Some elicited the help of salespeople and even the child's own friends to influence the child's choice.

John was eight years old. "I want to be a pirate, mom." It was obvious his mother did not. She called over a salesperson and asked her to show John the popular costumes. After some coaxing from the salesperson, John chose to be Batman. When John's mother went to pay for the costume, John put the pirate's patch on and swung a sword happily before leaving. (Party City)

In line with the extended self, parents see children and their actions as a reflection of themselves. In Asian cultures, children often are used to signify their parents' aspirations. As noted by one of the researchers, who is Asian, children are raised to understand that they represent the parents and that the child's actions speak for them. This traditional Asian concept has started to become more prevalent in the United States. The concept started in the upper class families and has trickled down the United States class structure (Devault and Strong 1989).

Children's Halloween rituals, as well as their costume selection, made manifest the theme of the child as a reflection of the parent. Children were instructed by their parents on proper Halloween etiquette. One rule was not to run up the lawn, but rather to use the sidewalk. The reason given for doing this was because "Daddy doesn't like it when other kids do it, so we shouldn't." Parents fear that other parents will notice their child's actions, and they will be viewed negatively. A child observed at Party City wanted to buy a Michael Jackson mask, but his mother

insisted that he buy something else. The boy's mother did not want the child to be associated with the "feminine, negative" image that many believe Michael Jackson has. Although the child pleaded, his mother chose something else. Her fear was that through the child's choice of a mask, the social values attached to it would be transferred to her (e.g., McCracken 1988).

New Society

For children across the country, Halloween is a significant festival. It is fun, thrilling, and exciting. However, it is also a day of concern for adults, particularly those who are parents. Halloween was once a "free for all" when children were allowed to go trick-or-treating until late at night, wearing virtually any costume they could get away with. In recent years it has become evident that Halloween is a holiday that can not be taken as lightly as it once was (Belk 1990). With the festivities of Halloween comes also a great deal of responsibility to take precautions for the safety of participants.

Two factors appear to serve as the driving forces behind this concern. One is the perceived omnipresence of violence and danger in modern society. The other factor stems from changes in family structure due to dual wage earning families. The growing fear for safety escalated eight years ago, "when the chilling news broke that seven people had died from Tylenol capsules laced with cyanide" (Kleinfield 1989). As a result of the infamous Tylenol scare, Halloween rituals were drastically revised. Some towns outlawed trick-or-treating that year and many parents forbade their children to leave the house. Similarly, with the increasing level of working mothers, the community has taken extra measures in enforcing safety for the children.

The researcher who participated in the trick-or-treating ritual was able to witness the various safety precautions taken, as well as the increase of working mothers in the town of Kent. When passing by each house, an orange sign was seen hanging on the front door which could be seen from a distance. These had been distributed to every house in the community by the Kent Township Police. The signs stated restrictions that were believed to be in the best interests of both the trick-or-treaters and their parents. It noted that children could not participate in trick-or-treating past 6:00 pm unless accompanied by someone 20 years of age or older. This safety measure was enforced by the presence of police cars patrolling the town. In addition, some working mothers took turns accompanying groups of children in order to provide constant supervision.

Halloween has also become a holiday for compromising. As a result of the curfew, children often became frustrated. Many did not want to be chaperoned and found it embarrassing. From this, compromises were born. In one instance, a group of youngsters were observed trick-or-treating although it was completely dark. They appeared to be alone, but following them very slowly was their mother in a car. She remained far enough away, so that they were not

embarrassed by her presence, yet close enough so that she was assured of their safety.

Another illustration of community involvement were efforts to detect tampering with distributed treats. Parents were aware that some people place sharp objects and dangerous chemicals in candy or cookies. As a safeguard, candy screening centers were located in each municipality so that all candy could be checked. In some areas, hospitals offered free x-ray programs to assure the safety of Halloween candy.

Retailers have also responded to parents' concerns about safety. McDonald's coupons have become a popular treat given out on Halloween. This helps McDonald's market itself and also lessens parents' fears. Some retailers carried costumes that were targeted toward working mothers whose safety concerns were heightened; these costumes were designed to maximize the child's safety in the mother's absence. Yet there was a trade-off -- increasing the safety of a costume increases the price.

Ultimately, it is the children who most directly encounter the negative aspects of Halloween. With the increase in working mothers, the percentage of households providing candy has dropped considerably. The researcher trick-or-treating in Kent observed a child's reaction to empty houses. After the third empty house, the researcher said, "They're probably not home". The child responded, "They pretend they're not home." Children are extremely disappointed when they encounter this situation. They feel that they have been let down by the adults. They cannot accept the idea of a dual career household, especially if their own mother does not work. However, there are individuals who understand the importance Halloween plays in a child's life. While accompanying her children trick-or-treating, one mother distributed candy to children passing by. She explained, "I feel bad that I can't be home to give out candy to the kids because I want to take my own kids trick-or-treating." She felt obliged to bring the candy along with her. Thus, the mother was able to satisfy both her safety concerns and the need to participate in the trick-or-treating ritual.

The Halloween Script

Over the years, children develop a Halloween script. This script is learned from older siblings, friends, schoolmates and parents. Before a child leaves the house, the parent often instructs the child on proper Halloween etiquette. The researcher who observed trick-or-treating in Kent was told three rules by the children. First, "never run up the lawn. Instead, walk up the driveway." Second, "do not bang on the door. Ring the doorbell or knock softly." Third, and most importantly, "always say 'thank you,' even if you do not like what you have received." When one of the trick-or-treaters ran up someone's lawn, the rest of the group quickly reprimanded him. Other rules that are understood by trick-or-treaters are to carefully cross streets, to stay in groups, and to walk-not-run from house to house.

While trick-or-treating, children form a comraderie with other groups of trick-or-treaters.

When one group approaches an empty house, they are quick to inform others not to go there. When groups of children meet on the sidewalk they tell each other which houses are "good houses", i.e., those which pass out desirable treats, and which houses are "bad houses", which give out less desirable treats. It is also common for children to trade candy. For example, the researcher in Kent observed several children dumping their bags of candy onto the sidewalk and bartering for more desirable candy. Later in the day, the children would decide which "good houses" to go back to for more of the desirable treats. To ensure that the "good houses" would not recognize them, the children would wait until it got dark to return. Some children even went to the extreme of switching costumes in the bushes.

The Halloween script does not end with the trick-or-treating. When they return home, the children find an open area in their house where they can dump out their candy. The child's parent then examines each piece of candy and throws out any pieces that appear tampered with. The child then sorts out the treats, usually counting how many pieces of candy and how much money was collected. The average amounts we observed collected were 28 cents and sixty-seven pieces of candy. The candy is then proudly displayed on the floor for the family to see. After displaying their collections, the children next decide which pieces of candy they will consume immediately, which are to be saved for later, and which pieces will be discarded (see also Belk 1990).

Materialism

When it comes to candy, size matters. Children rated houses based on the size and quantity of candy received. While trick-or-treating in Kent the researcher noted that the children were thrilled when they received Sips Juice Boxes at one of the houses. The juice box is quite large and heavy when compared to other treats. The children were pleasantly surprised and labeled the house a "good house". "Good houses" supplied children with unique treats such as the juice box, while a "bad house" passed out smaller, more common treats, such as a small lollypop. What emerged was a hierarchy of candy. The trick-or-treaters would dump their candy onto the sidewalk and rate it. After carefully ranking it, the children then determined each candy's trading or bartering value. For example, if a child did not like peanut M&M's, he would trade it to a child who did. In return, he sought to acquire a candy that he liked. Each child's candy ranking scale appeared to be unique.

As in other commercialized holidays, such as Christmas, Halloween teaches children how to receive i.e. "take," but not how to give. At most of the homes, an adult or a child too old to go trick-or-treating passed out the candy, while young children were the recipients. The joy of giving appeared overshadowed by the thrill of receiving something for nothing. In fact, even high school aged teenagers would go out trick-or-treating in order to "take" candy. Although they could not resist the temptation of free candy, the high school trick-or-treaters only

went out at night, so as not to damage their social image.

Overall, the children appeared to seek immediate gratification. While some were satisfied by sweet candy, others were satisfied only by money. With the influx of working parents, money or gift certificates, such as McDonald's gift certificates, are commonly given out instead of candy. This saves parents' time and it is also safer. At St. Peters, Kent, and the Caravelle Square Mall, children went into a fervor over money. At St. Peters, most of the children polled said they preferred money over candy. When one boy in a pirate costume was asked what he wanted to get, he jumped wildly around waving his arms and exclaimed, "MONEY! MONEY! MONEY!" In Kent, the trick-or-treaters enthused over McDonald's gift certificates, and in the mall the children proudly lined up for the costume contest in hopes of winning gift certificates. Children appear to prefer money and gift certificates, because these gifts permit them to choose exactly what they want. In short, they give them buying power, something which is lacking in a piece of candy. The ancient sacred meanings of Halloween appear to now be overshadowed by its secular meanings. The children at St. Peters, for example, thought that they had November 1 off to eat their candy, unaware that it was actually All-Saints-Day.

CONCLUSIONS

The ethnographic examination of consumption festivals such as Christmas, Thanksgiving and Halloween can reveal underlying cultural values and social processes. The present examination of Halloween suggests that a formerly religious festival has evolved into a modern day celebration of material gratification and identity creation/extension. The ritual aspects of the festival appear to be centered upon the purchase of costuming props and the receipt of money and sweet treats. The "masking of self" aspects of the costume rituals were also found to serve parents' needs to reinforce their own social identities through their children. Children were, in some cases, treated as semiotic objects appropriate for communicating their parents' public selves. Costumes were also used to communicate and reinforce what were viewed as appropriate gender roles.

Consumption festivals, because of their vivid and heightened realities, may make manifest values which are hidden in the mundane aspects of everyday consumer behavior. It is hoped that the present inquiry into Halloween has brought to light some of the social currents which run through our culture.

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An Exploration of Materialism and Consumption-Related Affect

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ABSTRACT

Consumers high in materialism believe that acquisition and consumption are necessary to their satisfaction in life and that expanded levels of consumption will make them happier. This paper reports two exploratory studies that examine whether consumption increases these desired positive feelings among materialists in the short term. Findings suggest that consumption leads to no more positive feelings among materialists than it does among consumers low in materialism. Furthermore, materialists experience stronger negative feelings after acquisition than do consumers low in materialism. The implications for materialistic behavior are discussed.

INTRODUCTION

Starting with Alexis de Tocqueville (1835), materialism has been identified as a dominant characteristic of American society. In a similar vein, recent writers have characterized the United States as a society in which people engage in an obsessive striving after things and a mindless indulgence in them (Schudson 1984), where consumers use as their primary indicator of success the number and cost of the items they possess (Arensberg and Niehoff 1975), and where young people increasingly value the means to acquire possessions over other goals in life (Green and Astin 1985). Despite a presidential call for a kinder, gentler nation and recent claims that greed has diminished, a study by an influential advertising agency predicts that materialism will be a driving force in American society for at least the next decade (Backer Spielvogel Bates Worldwide 1989).

Descriptions of contemporary American culture are often accompanied by criticisms of materialism and a plea for consumers to reduce the importance they place on acquisition and consumption. Among other negative consequences, critics have described the ecological and environmental costs of excessive consumption, the inability of the earth's resources to meet the consumption demands of all inhabitants (e.g., Leiss 1976), and the personal and interpersonal damage that can result from an overemphasis on acquisition and possession (e.g., Fromm 1976).

To understand materialism, it is necessary to comprehend the attitudes and processes associated with materialistic values. This paper reports two exploratory studies that examine one of these processes--the affect experienced by materialists during consumption.

There are several reasons to suspect that affective processes are implicated in materialism. After reviewing the writings on materialism, Belk (1984, p. 291) summarized the common themes by defining materialism as "the importance a consumer attaches to worldly possessions. At the highest levels of materialism, such possessions assume a central

place in a person's life and are believed to provide the greatest sources of satisfaction and dissatisfaction." The literature abounds with descriptions of materialists as perceiving their happiness to depend on the acquisition of possessions. Fournier and Richins (1991), in a study of popular notions concerning materialism, found that lay people describe materialistic individuals in a similar manner, noting that "they have to have the material things ... in order for them to be happy" and "their happiness is dependent on whether they get what they want." According to theoretical and popular conceptions, materialistic consumers expect the acquisition of possessions to improve their well-being.

Does acquisition make materialists happy? Do they actually experience the positive affect they expect from consumption? Because the motivation for materialists' pursuit of consumption is to improve well-being, it is reasonable to ask whether they in fact obtain more pleasure from consumption than those low in materialism. The exploratory studies reported here address this question.

Does Consumption Lead to Happiness?

Theoreticians, philosophers, and critics have debated for centuries whether acquisition and consumption lead to happiness. Certainly, there are reasons to expect that having more things can improve well-being. Possessions play an important role in defining the self and providing meaning in life (Belk 1988; Csikszentmihalyi and Rochberg-Halton 1981). They also provide functional benefits. Labor-saving devices can make life easier and allow tasks to be completed more quickly so that more time is available for pleasurable activities. Other possessions such as skis, sailboats, or color television sets enhance certain leisure activities and make them more enjoyable. Ownership of possessions such as one's home or expensive jewelry can provide financial security and create a sense of confidence or contentment. For these reasons, the acquisition of possessions is expected to generate positive emotions.

Critics, however, have described materialists' acquisition of products as "mindless" and without purpose. According to many, materialists who expect to achieve happiness through possessions are doomed to discontent and dissatisfaction because acquisition goals rise endlessly (e.g., Veblen 1899; Wachtel 1983) and because the truly important satisfactions in life come not from things but from relationships with others or development of the self (e.g., Fromm 1976).

Empirical tests of the relationship between consumption and happiness are limited, but two types of studies have indirect bearing on the issue. Researchers have looked at the relationship between happiness and income, or the *capacity* to acquire, and within a single culture find positive correlations (e.g.,

Easterlin 1974). Other studies, however, have examined the link between materialism and happiness, and these show a different picture. Belk (1984), Richins (1987), and Richins and Dawson (1991), using different measures of materialism, all found negative relationships between materialism and happiness or life satisfaction. Taken together, these two types of studies suggest that acquisition can improve happiness, but not necessarily for those who most believe their happiness to depend on acquisition.

The studies described above have examined happiness or satisfaction at a global level by asking respondents to stand back, as it were, and make an assessment of their general condition in life. The research reported here assesses happiness by looking at positive and negative emotions associated with a specific event--the purchase and consumption of a product--and examining its relationship with materialism. Two studies were carried out. The first looks at purchases which respondents reported as making them happy. The second looks at a broader range of purchases and assesses the affect associated with them.

STUDY 1

In the first study, respondents described purchases that made them happy and reported on the kind of feelings they experienced during and after the purchase. The responses of those high and low in materialism were compared.

Method

Data were collected using an open-ended survey format. Respondents were told to think back to purchases they had made and then asked if they could think of a particular purchase that had made them happy. Every respondent was able to identify such a purchase. Respondents were then asked to describe the product and purchase circumstances and to describe the feelings they experienced while making the purchase and during the subsequent few weeks. The questionnaire asked them to elaborate on pleasant and unpleasant feelings. The questionnaire concluded with the Richins and Dawson (1991) materialism measure ($\alpha=.87$) and some demographic items.

Data were collected from a convenience sample of 48 adult consumers. About half of these were consumers approached in various public settings, such as at a local shopping mall or while riding the bus. The rest were bank, hospital, and library employees approached at their place of work. Demographic characteristics of the sample are reported in Table 1.

Results

In analyses the sample was first taken as a whole, then divided into low and high materialism segments. To achieve group separation for the subgroup analysis, the 8 respondents closest to the median on the materialism scale were not classified; remaining respondents were classed as low ($n=20$) or high ($n=20$) in materialism if their score was below or above the median, respectively.

Purchases leading to happiness. In the examination of the entire sample, the purchases most

frequently mentioned by respondents as generating happy feelings were of clothing or accessories (mentioned by 29.2% of respondents). A wide range of clothing items was mentioned, from a wedding dress to a pair of shorts. Automobiles were also frequently mentioned (22.9%). The rest of the products mentioned fell into a variety of categories. Most (87.5%) were durable goods (e.g., grand piano, books), but such consumables as ice cream, flowers, and hair conditioner were also mentioned.

When the responses of those low and high materialism were examined, no particular patterns were evident. The largest difference was for the clothing/accessories category: 40.0% of those high in materialism were more likely to mention a clothing purchase as generating happiness while 15.0% of those low in materialism mentioned such a purchase. Because of the small sample size, however, this difference must be viewed with caution.

Emotions associated with the purchase.

Respondents were asked about the feelings they experienced during and after the purchase and were prompted to describe both "pleasant" and "unpleasant" feelings. All respondents reported positive emotions, as expected given the nature of the task (describing a purchase that made them happy). Frequently mentioned emotions are shown in Tables 2 and 3. Of the pleasant emotions, "happiness" or "pleasure" was mentioned most frequently (by 85.4% of respondents), followed by "excitement" (33.3%), and "anticipation" (20.8%). Less expected was the frequency with which negative emotions were mentioned. Half of the respondents mentioned being either "anxious" (37.5%) or "afraid" (12.5%), and other unpleasant emotions were also mentioned. Separate analysis of respondents low and high in materialism found no significant differences, although consumers low in materialism appear to be somewhat more likely to experience excitement and anticipation concerning the purchase than those high in materialism.

Conclusions

All respondents could readily describe purchases that made them happy, but the differences between low and high materialists in the products generating happiness and the types of emotions experienced were very small. The things that make one happy appear to be idiosyncratic and perhaps situation specific.

Failure to find differences by materialism level may have been due in part to the type of purchase situation covered in the questionnaire in that respondents were asked to describe a happy consumption experience. Study 2 was carried out to examine purchases that were not self-selected for the happiness they induced. Instead, in Study 2 respondents were asked to describe an important purchase they had made, and the affect associated with these purchases was examined.

TABLE 1
Demographic Characteristics

Characteristic	Study 1 (n=48)	Study 2 (n=107)
SEX		
males	31.2	41.1
females	68.8	58.9
MARITAL STATUS		
married	47.9	47.7
not married	52.1	49.5
not reported	—	2.8
AGE		
18-25	27.1	23.4
26-35	35.4	21.5
36-45	10.4	32.7
46-55	16.7	11.2
56-65	2.1	3.7
65 and older	8.3	7.5
EDUCATION		
some high school	2.1	2.8
high school graduate	25.0	25.3
some college	27.1	31.8
college graduate	31.3	27.1
advanced degree	14.5	12.1
not reported	—	.9
INCOME		
under \$15,000	4.2	21.5
\$15,000-\$24,999	18.8	28.0
\$25,000-\$34,999	14.6	11.2
\$35,000-\$44,999	20.8	14.0
\$45,000-\$54,999	12.5	13.1
\$55,000 or more	18.7	10.3
not reported	10.4	1.9

STUDY 2

Method

The questionnaire used for data collection included both open-ended items and items with fixed response alternatives. Respondents were first asked to "think of any important purchases you've made within the last month or so" and described several characteristics of the purchase. If they hadn't made an important purchase in this time period, they were asked to respond for their most recent important purchase.

Respondents were then shown a list of 24 emotions. This set was chosen from the lists provided by those who have assessed the structure of affect (de Rivera 1984; Shaver et al. 1987; Storm and Storm 1987), from other studies of product-related feelings (Gardner and Rook 1988; Schultz, Kleine, and Kernan 1989; Westbrook 1987), and from the emotions

described by respondents in Study 1. Respondents were asked to indicate the extent to which the product made them feel each of the emotions in the first few weeks after purchase using a response scale that ranged from 0 (not at all) to 5 (very much). They then completed the Richins and Dawson (1991) materialism measure ($\alpha = .86$) and demographic items. Three versions of the questionnaire in which the order of the emotion items varied were used.

Data were collected from a convenience sample of 107 adult consumers who were approached in a variety of settings similar to those of Study 1. Demographic characteristics of the sample are shown in Table 1.

Results

As in Study 1, analyses were first carried out for the sample as a whole and then on the low and high materialism subgroups. The 19 respondents closest to

TABLE 2
Positive Emotions Associated with "Happy" Purchases

Emotion descriptors used and number of times mentioned ^a (n=48)	Materialism ^b	
	Low (n=20)	High (n=20)
Happiness		
happy/happiness	18	
pleasure/pleasant	9	
enjoyment	7	
satisfaction	3	
felt good/great	3	
euphoria	1	
	<u>41</u>	18
	20	
Excitement		
excited/excitement	15	
wow	<u>1</u>	
	16	5
	9	
Anticipation		
anticipation	8	
eager	1	
impatient	<u>1</u>	
	10	2
	6	
Comfort		
comfortable/comfort	5	
relaxed	<u>1</u>	
	6	3
	3	
Relief/relieved	5	2
	2	
Pride		
pride	3	
accomplishment	2	
felt deserving	<u>2</u>	
	7	5
	0	
Love	4	2
	1	
Other	5	1
	3	

^aRespondents listed more than one emotion

^bExcludes unclassified respondents (neither high nor low materialism)

the median on the materialism scale were not classified into subgroups; remaining respondents were classed as low (n=44) or high (n=44) in materialism if their score was below or above the median, respectively.

Types of Products for Important Purchases. As might be expected from the marketing literature on product importance (e.g., Bloch and Richins 1983), the kind of purchases described as important by respondents were generally expensive, durable items (e.g., cars, television sets) and socially visible

products (e.g., clothing, furniture). Electronic equipment (television sets, stereos, personal computers) was mentioned most frequently (20.6%), followed by vehicles (18.7%) and clothing (11.2%).

Subsequent analyses compare low and high materialists with respect to the affect experienced following purchase. If the two groups differ in the kinds of products or consumption experiences they are describing, however, any observed differences in affect may be due to the different products involved

TABLE 3
Negative Emotions Associated with "Happy" Purchases

Emotion descriptors used and number of times mentioned ^a (n=48)	Materialism ^b	
	Low (n=20)	High (n=20)
Anxiety		
anxiety	4	
apprehensive	4	
nervous	3	
worried	2	
concerned	1	
uncertain	1	
doubtful	1	
hesitant	1	
tension	<u>1</u>	
	18	7
Fear		
fear/fright	4	
trepidation	1	
scared to death	<u>1</u>	
	6	3
Frustration		
frustration	3	
aggravation	<u>1</u>	
	4	3
Regret	2	1
Guilt	2	0
Other	6	3

^aRespondents listed more than one emotion
^bExcludes unclassified respondents (neither high nor low materialism)

rather than their degree of materialism. An examination of Table 4 reveals that there were no differences between low and high materialism respondents in terms of the type of product involved in the purchase reported. There were also no differences between the two groups in terms of product cost, length of time respondents had wanted the product before purchase, and how recently it had been purchased ($p > .05$).

Purchase-related Emotions. Table 5 shows the percentage of respondents who reported they had experienced each of the 24 emotions with respect to the product (that is, they assigned the emotion a value greater than zero on the response scale). Positive affect predominated, with happiness, excitement, and pleasure experienced most frequently. Negative emotions were less common, with nervousness experienced most frequently (36.4%), followed by guilt (26.1%) and fear (25.2%). The positive and

negative emotions reported concerning the "important" purchases of Study 2 are consistent with those described in Study 1 for happiness-inducing purchases.

When low and high materialists were compared on the frequency of reported affect, there was only one significant difference: high materialists were more likely than low materialists to report envy ($p < .05$). When comparing intensity of affect, however, several significant differences occurred. Those high in materialism reported stronger feelings of anger, disappointment, irritation, fear, nervousness, and envy ($p < .05$). At a borderline level of significance ($p < .10$), they also scored higher on feeling guilty and unfulfilled.

Because of the increase in experiment-wide error rate that accompanies multiple t-tests, a second approach was used to examine affective responses in which the 24 emotion items were subjected to a

TABLE 4
Products Described as Important Purchases By Low and High Materialism Respondents

Product	% Mentioning	Materialism ^a	
		Low	High
Electronic equipment	20.6	9	8
Vehicle	18.7	9	8
Clothing	11.2	5	5
Furniture/appliances	9.3	4	3
House or remodeling	7.4	3	4
Child-related items	5.6	2	4
Food	4.7	2	2
Tools, craft items	4.7	2	1
Other	17.8		

^aExcludes unclassified respondents (neither high nor low materialism)

principal components analysis. Using the scree test criterion, two factors were retained, together accounting for 46% of the variance in the affect items. Loadings are shown in Table 5. The first factor has high loadings for 14 negatively valenced emotions, the second factor has high loadings for 10 positively valenced emotions. This dimensional representation is consistent with that obtained in several other studies of affect (e.g., Watson and Tellegen 1985; Westbrook 1987; Zevon and Tellegen 1982). Summed scores were created from responses to the 14 negative and to the 10 positive affect items; coefficient alpha for the negative and positive emotion scales were .88 and .87, respectively.

The correlation between materialism and the positive affect scale was .08 ($p > .10$). Because the negative affect scale was highly skewed, a square root transformation was used; the correlation between materialism and negative affect was .31 ($p < .001$; correlation for the untransformed scale was .27, $p < .01$). Rather than experiencing more positive affect than non-materialists, consumers high in materialism seem to experience more negative affect following acquisition.

DISCUSSION

Like earlier studies of cable television and car purchases (Westbrook 1987) and of impulse purchases (Gardner and Rook 1988), the two studies reported here found a wide range of both positive and negative emotional reactions to purchases. Although both of the earlier studies found negative emotions to follow a purchase, we were somewhat surprised at the high incidence of negative affect following purchase events that respondents described as particularly happy. The largest category of negative affect involved anxiety and related states.

The most surprising aspect of the research, however, concerns the relationships between

materialism and consumption-related affect. Materialists expect acquisition to make them happier, and at least in the short run (the first few weeks after purchase), they report experiencing happiness and other positive affect concerning the product. However, the level of positive affect generated by the product is no greater for materialists than for nonTM-materialists.

Where the two types of consumers do differ is with respect to negative affect following purchase. High materialists experienced stronger feelings of anxiety, guilt, and other negative emotions in the weeks after purchase than did those low in materialism. One potential explanation for this finding has to do with the centrality of consumption in materialists' day-to-day existence. Because consumption is so important to them, they may have higher expectations for what a new possession will accomplish in their lives. With higher expectations, the chances for disappointment increase, and indeed disappointment was greater among those high in materialism. In addition, high expectations increase the chances for cognitive dissonance and generalized anxiety about the correctness of product choice. Finally, purchase of an expensive product can ignite feelings of envy among materialists as they scan the marketplace and the possessions of others, realizing perhaps that the television set, furniture, or automobile they can afford is not as well equipped, as luxurious, or of the quality they desire.

These negative feelings have implications for materialists' subsequent behavior. Because they believe that more consumption will make them happier, the way to erase the negative feelings, in their view, is to consume more. This is one possible mechanism for the perpetuation of the vicious cycle of consumption described by many critics of materialism (Brickman and Campbell 1971; Linden 1979; Wachtel 1983).

TABLE 5
Percent Experiencing Emotions and Rotated Factor Matrix--Study 2

Percent		Factor 1	Factor 2
36.4	Nervous	.53	.37
26.1	Guilty	.65	.08
25.2	Afraid	.58	.21
21.5	Frustrated	.73	-.03
15.0	Unfulfilled	.52	.03
14.0	Disappointed	.79	.07
13.1	Irritated	.67	.04
12.1	Disgusted	.80	.02
12.1	Angry	.79	.03
10.3	Envious	.45	.15
10.3	Sad	.78	-.02
8.4	Sympathetic	.50	.10
7.5	Lonely	.67	-.08
7.5	Embarrassed	.56	-.08
95.3	Happy	-.02	.73
83.2	Excited	.01	.82
81.3	Pleasure	.10	.70
78.5	Proud	.06	.72
76.6	Contented	-.09	.81
75.7	Thrilled	.10	.79
74.8	Relieved	.19	.43
66.4	Optimistic	.01	.64
36.4	Affectionate	.28	.56
20.6	Sexy	-.08	.43

The research described here is an exploratory attempt to assess the potential value of examining materialism and affective processes. Future research can extend our knowledge by exploring different aspects of the materialism-affect link and by studying affect itself in different ways. In this study, a two dimensional representation of affect was used. Although this is an improvement over early research that treated affect as a single, bipolar dimension, there have been criticisms of the two-dimensional approach as inadequate (e.g., Shaver et al., 1987; Smith and Ellsworth 1985). Future research on materialism and affect should be designed to test more complex representations of emotion.

Future research should also be directed at determining *why* the various kinds of affect, especially negative, occur among materialists. Depth interviews probing the reasons for disappointment, anxiety, and envy in particular instances would provide a more textured picture of the relationships between materialists and their possessions.

Another approach would be to examine the long-run affective relationships materialists have with their possessions. Materialistic people are often perceived to be wasteful, quickly becoming disaffected with their acquisitions and desiring new ones, and studies covering a longer time period can test the validity of this perception and explain the reasons for this disaffection, if it does indeed occur. Does it result

from a decline in positive feelings about the product, for instance, or from an increase in negative affect such as envy and anxiety?

Examination of *pre-purchase* affect would round out the picture of materialists' affective processes in a different direction. Studies that look at anticipatory affect in conjunction with pre-purchase expectations about how one's life will be affected by the acquisition would be an opportunity to link the affective and cognitive processes of materialists.

The research reported here demonstrates that affective processes play a role in materialism. As future research examines these processes in greater detail, we may gain new and valuable clues about the nature of materialism and why it persists.

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An Investigation of the Attribute Basis of Emotion and Related Affects in Consumption: Suggestions for a Stage-Specific Satisfaction Framework

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ABSTRACT

Emotions having the potential to be evoked in the consumption experience were related to attribute-specific and overall judgments of satisfaction/dissatisfaction in an effort to more fully understand the role of emotion in consumption. Results of a multidimensional scaling analysis of the attribute dimensionality of automobile purchases and a property-fitting of emotions and satisfaction measures revealed two attribute dimensions and meaningful interpretations for the position of satisfaction/dissatisfaction, enjoyment, interest, surprise, and general negative affect on this space. The attribute and emotion solution suggests a consumption-stage interpretation of the evocation of emotions in usage. Propositions consistent with this framework are offered for future work in the area.

Work on the role of emotion in consumption is beginning to intrigue consumer researchers. Prompted by calls for greater emphasis on non-cognitive elements of purchasing and consumption phenomena (e.g., Holbrook and Hirschman 1982), researchers have, of late, begun to investigate this research domain (Havlena and Holbrook 1986; Holbrook 1986; Holbrook et al. 1984; Oliver 1989, 1990; Westbrook 1987; Westbrook and Oliver 1991). The present paper continues this tradition in the following manner. First, it examines the dimensionality of attribute reactions (satisfactions in the present case) in consumption. Second, it relates reported emotional experiences in consumption to the derived dimensions, illustrating the capacity for attributes to evoke emotion. And third, overall satisfaction and dissatisfaction are positioned within the emotion and attribute configuration.

Background

Prior to recent years, few writers had considered responses other than satisfaction/dissatisfaction to the consumption experience. In fact, few had speculated as to whether satisfaction was an emotion or not. One exception is Hunt (1977) who referred to satisfaction as "an evaluation of an emotion." Two streams of research are available to provide insight to this issue. The first, represented by the work of Leavitt (1977), Maddox (1981), and Swan and Combs (1976), relates to the dimensionality of satisfaction attributes. The second, more recently, investigates the emotional correlates of consumption and includes

the works of Holbrook (Havlena and Holbrook 1986; Holbrook et al. 1984) and Westbrook (1987; Westbrook and Oliver 1991) with respect to overall satisfaction with products. Interestingly, the two streams of work do not overlap in that the "attribute basis" of the earlier works is not reflected in the emotional basis of the more recent writings.

In the following discussion, these perspectives are reviewed to properly frame the present study. First, literature on the attribute basis of satisfaction and dissatisfaction is discussed in an effort to explain how others have viewed attribute categorizations. Second, works on emotion in consumption are reviewed in an effort to position satisfaction relative to other emotions and, to some extent, respond to Hunt's (1977) query about whether satisfaction is an emotion or the evaluation of emotional responses in purchasing. Finally, the present effort links attribute satisfaction, overall satisfaction, and emotion in a manner suggestive of an emerging framework. At present, only Oliver's (1989) theoretical framework containing both satisfaction and emotion is available to researchers. This conceptualization does not address the role of product attributes, however.

Prior Works on the Attribute Basis of Satisfaction/Dissatisfaction

Three studies are known which have attempted to propose or test the role of attributes in product satisfaction judgments. In an investigation of responses to newly acquired apparel, Swan and Combs (1976) argued that attributes can be classified into "satisfiers" and "dissatisfiers" based on whether the product features were expressive or instrumental. Instrumental apparel features were defined as physical product attributes such as "wash and wear," while expressive features were non-product characteristics such as a friend's admiration. Using a method wherein subjects recalled satisfying and dissatisfying clothing usage situations and the reasons for their (dis)satisfaction, the authors found that more expressive than instrumental attributes were mentioned in satisfying scenarios, while instrumental attributes tended to be mentioned more frequently in dissatisfying scenarios.

Maddox (1981) replicated this approach on a larger selection of products and found that, if one restricts analysis to personal care items (including clothing), the separate factor interpretation is supported. However, if other products such as durables are considered, the results tend to appear in a direction opposite to that proposed by Swan and Combs (1976). Maddox suggested that the instrumental/expressive breakdown is flawed because the results appear to be product-specific.

In an alternative approach, Leavitt (1977) used the Herzberg (1966; Herzberg, Mausner, and Snyderman 1959) distinction between intrinsic and extrinsic work factors to classify a variety of

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marketing mix descriptions (product, price, advertising, and place) into intrinsic (product) and extrinsic (price, advertising, and place) categories. When correlated with separate measures of satisfaction and dissatisfaction, Leavitt found virtually identical correlations (neglecting signs) across categories and concluded that the intrinsic/extrinsic hypothesis was not supported.

Thus, current knowledge about the attribute basis for satisfaction/ dissatisfaction is lacking. Neither the instrumental/expressive nor the intrinsic/extrinsic breakdown proposed in prior works has proven fruitful. Because the former has been unsuccessfully replicated and because the latter showed little promise as a classification scheme for consumer products, these perspectives were not pursued here. Rather, an inductive attempt was made to shed light on the attribute satisfaction phenomenon in consumption.

Studies of the Emotional Content of Product Experiences

To date, four published studies have examined the potential emotional basis underlying experiences with products. The first, by Holbrook et al. (1984) examined the Mehrabian and Russell (1974) pleasure-arousal-dominance (PAD) emotional typology in the context of video games. Their results showed that mastery of the game affected pleasure and dominance perceptions, but not arousal. In a comparison of the PAD framework with eight discrete emotions proposed by Plutchik (1980), Havlena and Holbrook (1986) found that the Mehrabian and Russell PAD typology resulted in more attractive psychometric properties (dimensionality, variance explained, etc.) over some 35 hypothetical consumption experiences. However, neither overall nor attribute-specific satisfaction was investigated in either study.

Westbrook (1987), correlated responses to Izard's (1972, 1977) Differential Emotions Scale, consisting of ten discrete emotions (to be discussed), with various satisfaction and dissatisfaction measures regarding automobiles and cable TV and posited that consumers form two summary affect states, one based on the positive affects in consumption and the other on the negative affects. His results showed that the affects of joy and interest loaded on a factor separate from that of anger, disgust, and contempt, and that these factors were relatively uncorrelated. Moreover, both were related to satisfaction in the expected direction although Westbrook concluded that satisfaction was not fully represented by these emotional dimensions.

In the latest paper, Westbrook and Oliver (1991) replicated Izard's (1977) typology on a new sample of automobile ownership, to study further the dimensionality of consumption. Their results modified the earlier Westbrook (1987) findings somewhat in that they found a broader negative dimension which they labeled "hostility," a positive dimension combined with surprise or "pleasant surprise," and an interest dimension. These dimensions explained approximately 40-45% of the variance in various satisfaction measures.

Thus, these prior works suggest that emotion may play a distinct role in postexposure processes including satisfaction/dissatisfaction. However, the evidence to date is not able to suggest a correspondence between specific states of satisfaction/dissatisfaction, the emotions evoked in consumption, and the attribute basis evoking these emotions. In short, the emotion literature speaks to one link in the three-part attribute-emotion-satisfaction scheme, while prior literature on the categorization of attributes reflects a second -- that between attributes and satisfaction. Missing, however, is an integrated analysis of the attribute basis for emotion and of the relation of satisfaction to these variables.

Such an analysis would perform three functions in efforts to understand how emotions operate within the product consumption experience. First, it would suggest the tendency for attribute experiences to evoke specific types of emotions. Second, it would position satisfaction and, perhaps separately, dissatisfaction within the attribute profile, thus suggesting the tendency for attributes to promote either satisfaction or dissatisfaction. Finally, by positioning satisfaction and dissatisfaction within the emotion-on-attribute space, the correspondence of satisfaction/dissatisfaction to specific emotions can be observed. This would permit an emotional interpretation of some common satisfaction and dissatisfaction measures.

Thus, the goals of this paper are to: (a) spatially describe an attribute configuration of attribute satisfactions, (b) fit an emotional typology on this space to suggest the correspondence between attributes and their potential to evoke emotions, and (c) study satisfaction/dissatisfaction as a property of emotional experience *and* attribute experience, particularly with regard to the juxtaposition of satisfaction vis-a-vis the emotions present in consumption experiences.

METHOD

To address these objectives, a methodological approach and research vehicle were needed with the flexibility to accommodate adequate numbers of attributes and emotions within the same design and analysis. Precedent for this problem has been established in the works of Westbrook (1987; Westbrook and Oliver 1991) and Havlena and Holbrook (1986). The Westbrook studies used Izard's (1977) Differential Emotions Scale containing ten fundamental emotions in automobile ownership and consumption. This approach is combined with the Havlena and Holbrook scaling solution to respond to the study objectives.

Sample

The sample consisted of 125 owners of recently purchased automobiles contacted in shopping centers of a major northeastern city. Details of the sampling procedure appear in Westbrook and Oliver (1991).

Measures

Attribute Satisfaction. To achieve a reasonable list of attributes, *Consumer Reports* and focus groups of graduate and adult evening school students were consulted to determine salient automobile features. Consideration of the overlap and redundancy in the frequency of attributes mentioned across sources produced a list of 19 features. The attributes used were acceleration, body integrity (no squeaks, rattles), fuel economy, handling, image, interior features, luggage space, noise, power, price, quality, repair frequency, ride, roominess, safety, service, sound system, styling, and uniqueness.

Because automobile "consumption" is an ongoing process and not a one-time purchase/usage experience, allowance was made for the possibility that the respondents would have observed favorable and unfavorable experiences with the same attribute. For example, although initial fuel economy may have been poor, later improvements may have occurred through servicing and normal "break-in." Thus, consumers could have been both satisfied and dissatisfied with the same attribute. To account for this, subjects were asked to state the degree to which each attribute provided satisfying and dissatisfying experiences on six-point scales ranging from none to a great amount. The attribute satisfaction score used here was the net of the satisfying and dissatisfying scores.

Emotions. Because of its validated properties and the precedent set by Westbrook (1987), Izard's DES II was used in the present study. Specific scale items represent the ten fundamental emotions of interest, enjoyment, surprise, sadness, anger, disgust, contempt, fear, shame, and guilt. This 30-item scale, consisting of three items per emotion, appears in two forms. It can be used as a "state" measure whereby subjects indicate their intensity of emotion and as a "trait" measure whereby subjects indicate the frequency of experiencing the emotion. Whereas Westbrook and Oliver (1991) used the frequency scales, the intensity scales are used here because the present focus studies attribute experience which Westbrook and Oliver did not address. Since some very important attribute experiences may occur only once (e.g., an intensely negative service experience) and still impact satisfaction greatly, it was felt that intensity would be more meaningful in the attribute context. Moreover, the original DES, as well as Westbrook's (1987) study used intensity measures and greater scale validation is available for this version. Izard (1977) reports original test-retest reliabilities for the ten scales ranging from .68 to .87.

Satisfaction. Because separate measures of satisfaction and dissatisfaction were desired, an alternative to the conventional bipolar scale was needed. Thus, a twelve-item Likert scale expanded from Oliver (1980; Oliver and Westbrook 1982) was adapted to the present study. This scale consists of a set of statements reflecting agreement/disagreement with phrases such as "happy with product," "right decision," etc. To provide a measure of satisfaction only, all items were worded in the positive. A separate negative scale was constructed by repeating the twelve

items in the negative (e.g., unhappy with product, wrong decision). Because these are agreement scales, it was not expected that the subjects would simply give complementary answers to the two parallel scales. For example, a subject could conceivably indicate strong agreement with "happy with product," but indicate neutrality as opposed to strong disagreement with unhappiness.

Alpha reliability estimates for the ten emotion intensity scales range from .70 to .94 and are similar to those for the frequency scales in Westbrook and Oliver (1991). Reliabilities for the satisfaction and dissatisfaction scales were very high (.98 and .97 respectively), indicating strong agreement over items in these scales.

Analysis

The two-way matrix of attribute ratings (125 subjects by 19 attributes) was row-standardized to equate subjects' variances and means so that idiosyncratic anchor points were removed and submitted to MDPREF (Carroll 1972), a vector MDS model. Here, subjects are represented as vectors emanating from the origin of the space, and attributes are represented as points. The projection or scalar products of these attribute points onto subject vectors renders a graphical summary of how each subject's level of satisfaction/dissatisfaction derives with respect to each attribute. Since MDPREF produces orthogonal dimensions, one can examine a scree plot of the variance accounted by dimension to select the most parsimonious interpretation.

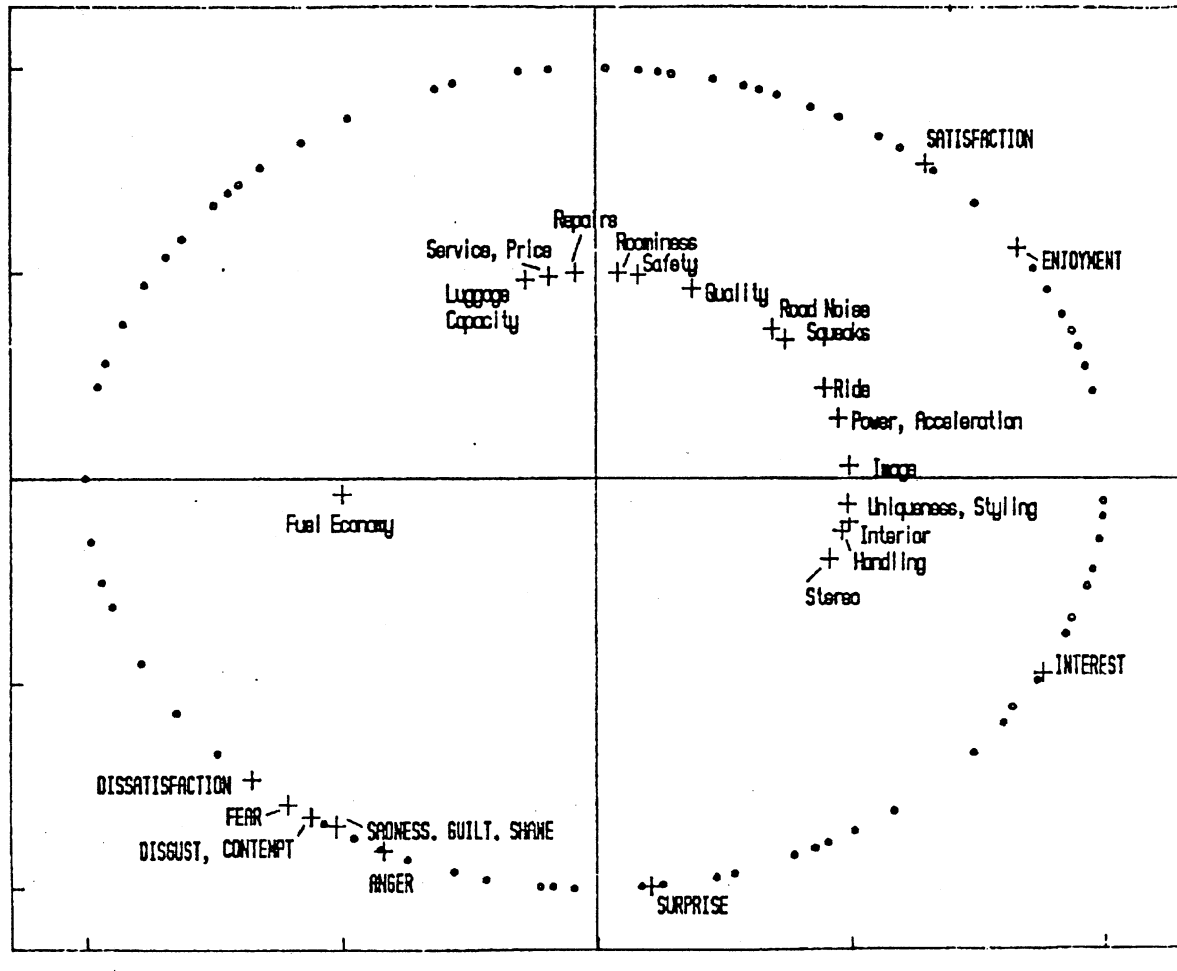
Once the joint space of subject vectors and attribute points is estimated, one can use simple regression procedures to property-fit (cf. Green and Rao 1972) the ten emotions from the DES individually. This would indicate the nature of the relationship between the ten scales and the derived stimulus space. Similarly, one can perform the same property-fitting application with the satisfaction and dissatisfaction scales. The net result, therefore, is a graphical summary of the internal components of attribute satisfaction and how these derived components are related to the various emotions and overall satisfaction/dissatisfaction.

FINDINGS

The MDPREF analysis of the attribute satisfaction scores revealed two orthogonal dimensions explaining 42% and 15% of the variance respectively. Based upon interpretation and scree tests, the remaining dimensions were found to offer no new insight to the analysis. The 57% of variance explained by the first two dimensions is quite good considering the large number of subjects. The Figure presents the two derived dimensions where both the lengths of the attribute points and subject vectors were normalized for convenience. For ease of illustration, the subject and subsequent emotion vectors are not shown. Rather, the end points (termini) are represented as hollow dots for subjects and crosses for the emotions and satisfaction variables.

The horizontal dimension (Dimension 1) consists of satisfaction with instrumental performance

FIGURE
Two-dimensional Joint Space Plot



features (i.e., those which provide ongoing dynamic performance, satisfaction, and pleasure such as ride, acceleration, stereo quality, and styling), while the vertical dimension (Dimension 2) consists of satisfaction with less variable "constants" (e.g., one-time events or factors considered in the initial purchase decision such as price, safety, quality, and size). Note that these dimensions do not fit either the notion of "satisfiers" or "dissatisfiers," or of instrumental/expressive or intrinsic/extrinsic attribute classifications as described earlier. The data reveal, further, that all attributes are essentially satisfying in this sample in that they are positively situated on the dimensions with the exception of fuel economy. Apparently, satisfaction with fuel economy is at odds with satisfaction with the other attributes on Dimension 1. This is easily explained, however, as satisfaction with features such as acceleration and power on this dimension can only come at the expense of fuel economy.

The outer circle of subject vector termini represents the subjects' respective positions vis-a-vis

their net satisfaction with specific attributes.

Generally, the sample appears quite diverse with regard to individuals' satisfaction and dissatisfaction with the attribute dimensions of the car. For example, subjects scoring positively on Dimension 1 apparently derive satisfaction from the performance characteristics of the car at the expense of fuel economy while those scoring negatively on this dimension derive satisfaction from high fuel economy at the expense of performance.

Correlations between the derived attribute dimensions and the emotion intensity ratings are shown in the Table. The ten emotions are shown at the vector termini on the outer normalized radius circle. This mapping reveals four distinct sets of emotional profiles, namely interest, enjoyment, surprise, and general negative affect. Interestingly, the attributes tend to group on two of these, as the following discussion describes.

Enjoyment appears to represent more of the attributes than any other dimension profile although, interestingly, only satisfaction with (the absence of)

TABLE
Correlations Between the Attribute Dimensions and the Consumption Responses

Response	Dimension 1	Dimension 2
Interest	.316	-.171
Enjoyment	.418	.284
Surprise	.030	-.282
Sadness	-.302	-.447
Anger	-.192	-.416
Disgust	-.290	-.419
Contempt	-.274	-.391
Fear	-.200	-.263
Shame	-.186	-.283
Guilt	-.212	-.318
Satisfaction	.491	.481
Dissatisfaction	-.448	-.427

noise and squeaks appear directly related to this dimension. Generally, enjoyment correlates more highly with the attributes on Dimension 1 (dynamic performance) than on Dimension 2.

Interest also appears to be evoked primarily by the Dimension 1 variables and displays a modestly negative correlation with Dimension 2. Apparently, the subjects in this study derived interest from the ongoing performance characteristics of their cars, perhaps because these are capable of maintaining interest. Surprise, in contrast, is captured only by Dimension 2 where satisfaction levels of the attributes are associated with a *lack* of surprise. Thus, unsurprising levels of price, repairs, service, and roominess, for example, tend to characterize this perspective. Finally, all of the negative affects including fear, sadness, disgust, contempt, and anger group together. Somewhat more representative of Dimension 2, these affects do not appear 180 degrees apart from enjoyment, a purer form of positive affect. Anger, in particular, is oriented more closely with Dimension 2.

When satisfaction and dissatisfaction were fit in this same space, satisfaction is shown in the Figure to share more in common with enjoyment than with interest. It also appears that satisfaction is more representative of the attribute satisfactions than is enjoyment. Alternatively, dissatisfaction is more moderately positioned than are the negative affects, correlating almost equally with Dimensions 1 and 2.

DISCUSSION

The discussion proceeds in three sections. First, the attribute satisfaction space as it relates to the solution found here is discussed. Second, the relation between these attributes and the ten discrete emotions are elaborated. Third, satisfaction is discussed, both with regard to its relation to the attributes and to the emotions. At each stage in this process, research issues are proposed to stimulate further work in the area.

Attribute Dimensions

The data suggest two groups of attributes, those which relate to satisfaction with the continuing performance of the product such as acceleration, ride, fuel economy, etc. and those which are one-time (e.g., price), infrequently accessed (e.g., service), or unchanging characteristics (e.g., safety, quality). This dynamic/static description of attribute satisfaction was evident in this study due to the nature of the product. Unlike one-time or short-life products (e.g., foods, entertainment, disposables), automobiles have the capacity to display both "purchase phase" and "usage phase" qualities which have the capacity to evoke a wider range of emotions. Conceivably, there exist other dimensions of performance based on the temporality or emergence of different performance stages.

For example, an initial stage of acquisition attributes (e.g., price, terms) is proposed which includes the known attributes of the product (e.g., size). This is followed by certain "unknowns" which manifest themselves very shortly (e.g., initial defects). The next stage (if appropriate to the product) is a longer period of "steady-state" performance whereby the variable performance dimensions are observed to change and subjective attributes (e.g., image) are reinterpreted. Thus, the following proposition is offered:

Proposition 1. Satisfaction from consumption and, hence, satisfaction with attribute performance may be viewed in stages, each of which has the potential for evoking diverse emotions and further cognition. The first is the acquisition and known characteristics stage where various properties of the product are known with certainty (e.g., size, color). This may be followed by the initial discovery of unknowns as in the number of factory defects and service experiences with the dealer. Finally, there may exist longer term consumption experiences where basically

known elements of the product are monitored for change.

Note that the framework suggested by the present data does not correspond to separate-factor theories as previously discussed. Rather than "satisfiers" or "dissatisfiers," consumption-stage attributes capable of producing either satisfaction or dissatisfaction appear evident. Nor do the expressive/instrumental categories, operationalized as product and non-product benefits, correspond to the present findings. It appears, instead, that product features and external features exist together on both dimensions (e.g., power and image on Dimension 1, roominess and service on Dimension 2). This does not suggest that the prior conceptualizations are incorrect, as a different methodology was used here. Rather, it suggests that alternative interpretations are plausible.

Emotions

The location of the emotions on the attribute satisfaction space can be viewed as consistent with the attribute interpretation above. Whereas Westbrook and Oliver (1991) found dimensions of hostility, pleasant surprise, and interest, an alternative analysis of intensity ratings from the same data set shows that the emotions of enjoyment, interest, surprise, and negative affect appear to operate as responses to underlying attribute dimensions. Thus, these findings differ from those of the Westbrook and Oliver frequency data in that enjoyment and surprise may initially be separate responses in consumption that become additive over time (as consumption experiences become more frequent -- i.e., accumulate) to produce the pleasant surprise dimension.

Of greater interest is the correspondence of the emotions to the attribute space. Specifically, enjoyment was fairly moderately situated among the attributes although it was more highly related to Dimension 1. Interest, however, was clearly aligned with the first dimension, representing dynamic performance and suggesting that continued interest in a product relates to satisfactions with ongoing performance. In contrast, surprise appears to relate solely to Dimension 2 where less (or no) surprise is related to satisfaction with the one-time or static aspects of the product. Finally, general negative affect appears to reflect the negative dimension of enjoyment although these extremes are not 180 degrees apart. Rather, the group of negative affects is approximately 155 degrees from enjoyment. Anger, more so than the other negative emotions, is a Dimension 2 affect, suggesting that dissatisfaction on the Dimension 2 attributes is capable of provoking anger. Alternatively, dissatisfaction on the Dimension 1 attributes is somewhat more likely to evoke the more general negative affects.

The implications of these findings are rather interesting for it appears that the nature of the attributes or, more accurately, the relevance of an attribute to a consumption stage, may evoke certain emotions characteristic of that stage. For example, the data suggest the possibility that dissatisfaction with known attributes may provoke anger while

dissatisfaction with unknown but subsequently observed attributes may produce surprise or anger and surprise. Alternatively, dissatisfaction with the more dynamic attributes possibly may generate less specific forms of negative affect. Based on these observations, the following proposition is offered:

Proposition 2. There may exist consumption-stage-specific affects which are evoked by the attributes unique to or observed in these stages. Initial stage consumption, consisting of observation of previously known and soon to be observed attributes, produces, in the dissatisfying case, short duration but fairly intense emotions such as surprise and anger. Attribute satisfaction in this initial stage may produce similar types of positive emotions of the "surprisingly good" variety such as delight and excitement. Alternatively, later consumption stages may produce emotions capable of being sustained along with the dynamic nature of the later stage attributes. Such emotions in the satisfaction case appear to be interest and enjoyment. Parallel emotions in the dissatisfaction case may be described in general terms such as sadness or resignation.

Satisfaction/Dissatisfaction

Two issues are relevant to the role of satisfaction/dissatisfaction in the present framework. The first concerns the relation between attribute satisfaction and overall satisfaction while the second concerns the underlying emotional basis for perceptions of satisfaction. The data suggest that overall satisfaction includes a fairly global summary judgment of attribute satisfaction. This perspective is suggested by the very central position of the satisfaction vectors among the attribute satisfactions. Thus, it appears that satisfaction is a summary attribute phenomenon, at least in part.

Finally, the results suggest that satisfaction shares commonalities with, but differs from enjoyment (pleasure). This is consistent with Oliver's (1989) position that pleasure is but one of perhaps five satisfaction prototypes. Interest and surprise, other somewhat distinct affects found here, are not well represented on the satisfaction vector. This suggests the possibility that other consumption emotions, and perhaps cognition, coexist with satisfaction/dissatisfaction and have separate, but equally important effects on later purchase behavior. These observations suggest the following:

Proposition 3. Satisfaction and dissatisfaction reflect the general affective tone of the consumption experience, appearing to equally represent static and dynamic purchase elements. However, other purchase emotions (e.g., surprise) may coexist with satisfaction so that a fuller range of postpurchase psychological responses is needed to properly describe the cognitive and affective reactions to consumption.

Limitations

Given the early stages of this research stream, limitations encountered here exist which will serve to alert future researchers to potential pitfalls. One such pitfall is the restriction imposed by a limited sample of respondents and a single product. Automobiles are known to be a high involvement product category which has the capacity to evoke greater levels of both affect and cognition. Low involvement products would not be expected to elicit high levels of processing and may result in the "contentment mode" of satisfaction as proposed by Oliver (1989). As a result, the findings here may not replicate on frequently purchased, everyday products.

A second limitation is the necessity for a greater sampling of emotions. The ten "fundamental" emotions from Izard (1977) were selected because of the precedent set by Westbrook (1987). One problem with this scale, observed in retrospect, is that, although the subjects were largely pleased with their cars, seven of the ten affects in the Izard scale are negative in character. Thus, other typologies, consisting of other sets of emotions need to be studied, perhaps in conjunction with those of Izard. Plutchik's (1980) framework as used by Havlena and Holbrook (1986) is one such example.

Another limitation concerns the methodology and analysis, specifically with regard to the use of the property-fitting procedures in MDPREF. For example, the vector model representation could reflect a misspecification error if an ideal point model were the true underlying structural form. Thus, the suggested research propositions are both data-dependent and specific to the methodology and analysis used here and are not theory-driven. Until more work is done in this area, however, early representations such as that found here will hopefully serve to stimulate future efforts.

CONCLUSION

Drawing on the precedent set by other works in the satisfaction and emotion areas, an effort was made to provide early insights into the role played by emotion in the consumption experience with particular emphasis on attribute and overall satisfaction. The data suggested attribute dimensions differing on a usage stage basis and a mapping of emotion suggestive of early stage and later stage experiences. Satisfaction/dissatisfaction was found to mimic a general affect, more representative of enjoyment than of interest or surprise. Propositions are offered, suggesting a framework for the future study of emotions deriving from consumption and its stages.

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Interpreting Perceiver Reactions to Emotional Stimuli

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ABSTRACT

The expressive reactions of perceivers to emotionally expressive stimuli have been considered to be mediated emotionally and unemotionally. In order to demonstrate emotional mediation, a distinction is proposed between supplementary and complementary emotional responses. The emotional releasing function of emotionally expressive stimuli is considered from a psychobiological perspective in terms of effects on attention and attitude formation and change. Implications for ad testing are discussed.

INTRODUCTION

Some theorists have presumed the expressive reactions of perceivers to emotionally expressive stimuli to be mediated emotionally, whereas others have viewed these responses as essentially imitative. This paper attempts to resolve the affect-imitation issue by distinguishing between complementary and supplementary emotional reactions, and using this distinction as a framework for the interpretation of relevant studies. The relative contributions and validities of facial electromyography and other measures of emotion are considered. The implications of automatic affect elicitation are also considered in terms of attitude formation and change.

A major assumption of advertisers and consumer researchers has been that perceivers react emotionally to the emotional expressions of others. Emotion, here, is defined as an internal state which manifests itself through three basic output channels—physiological responses, expressive behavior, and subjective experience (Buck 1988). Accordingly, in the consumer behavior literature, the response of perceivers to emotional stimuli has been characterized as "activation" (Kroeber-Riel 1979) and an "over-time flow of feelings" (Friestad and Thorson 1986), which correspond to the concepts of physiological arousal and subjective experience of emotion, respectively. The Cohen and Areni (1991) model of affective consumer response shares this general orientation, incorporating expressive behavior in their conceptualization of the "first phase affective response". The assumption of affective perceiver reactions to emotional stimuli is clearly evident in the application of their model to the perception of a Michelin tire ad:

"The happy babies in the commercial should elicit an immediate, almost automatic, affective response. Viewers may even find themselves smiling. This 'primitive' affective response occurs without consideration of the meaning of any element of the ad. It may be more related to the facial pattern of the smiling baby's face, or the happy baby may have virtually become an 'unconditioned stimulus' for the generation of affect" (Cohen & Areni 1991, p. 232).

The idea that the emotional expressions of conspecifics cause automatic emotional reactions in observers has appeared in works as early as those of Darwin (1872) and McDougall (1908). More recently, the concept has appeared in Izard's (1977) principle of emotion contagion, and in the work of several empathy researchers (e.g. Stotland, Sherman, & Shaver 1971).

The dominant explanation of the emotion contagion process has employed the ethological concept of the innate releasing mechanism, a phylogenetically pre-programmed system for the instigation of specific motivational/emotional/behavioral patterns. Innate releasing mechanisms are triggered by a set of stimuli known as releasers; a particular category of releaser includes the phylogenetically-based social signals of others which comprise emotional expressions. According to the ethological view, then, the emotional expressions of others act as releasers of internal emotional states in perceivers. In the words of ethologist Eibl-Eibesfeldt, "if we perceive someone smiling, cerebrochemical processes are presumably activated, these inducing a friendly mood and smiling in response" (1989, p.73). Support for this notion has come largely from studies (reviewed below) finding reliable changes in the nonverbal behaviors of perceivers upon exposure to emotional expressions (e.g. Davidson & Fox 1982; Dimberg 1988; Sackett 1966).

An alternative explanation suggests that perceiver reactions to emotionally expressive stimuli may be instances of non-emotional mimesis. Such non-emotional imitation of nonverbal behavior has itself been conceptualized as the product of an innate releasing mechanism (Masters 1979). Others have considered imitative display to serve a social communication function which may or may not be mediated by emotion (Bavelas, Black, Lemery, & Mullett 1986).

IMITATION VS. EMOTIONAL MEDIATION: RESEARCH FINDINGS

The findings of a variety of studies shed light on the imitation-emotion issue. The results of the first group of studies illustrate the ambiguity of interpretation encountered when sender and receiver both exhibit the same nonverbal display; in such cases, expressive behavior may be interpreted as either the result of emotional mediation or non-emotional imitation. These ambiguous cases will conservatively be considered supportive of the mimetic interpretation. In these studies, facial EMG is employed as a measure of emotional response, the merits and limitations of which are detailed below.

Support for Imitation

Vaughan and Lanzetta (1980) in a study of vicarious emotional conditioning, employed expressions of pain as unconditioned stimuli and collected facial EMG and skin conductance measures.

Results indicated that exposure to expressions of pain, even in videotape format, can elicit congruent physiological arousal and facial patterning in the observer. The authors concluded that observers responded emotionally to the model's expressions and that the observation of emotional expressiveness is necessary for the acquisition and maintenance of vicarious conditioning. These results, however, likewise may be interpreted as an instance of imitative responding; that is, the pained expressions of the stimulus person may simply have been mimicked by observers.

McHugo, Lanzetta, Sullivan, Masters, and Englis (1985) exposed American subjects to televised emotionally expressive displays of Ronald Reagan, and compared their physiological and self-reported emotional responses. Although prior attitude significantly influenced self-reported emotion, subjects displayed similar physiological patterns of emotional expression regardless of prior attitude. Across all subjects, facial EMG responses indicated subjects smiling during displays of happiness and frowning during fear and, especially, anger displays. Skin conductance responses indicated least relaxation during anger displays, intermediate activity during fear displays, and most relaxation during happiness displays. Heart rate decelerated most during fear and anger displays. The authors concluded that emotionally expressive displays have a direct emotional impact on viewers, however, they explicitly accepted the possibility that the EMG activity may have resulted from imitation: It was suggested that the finding of "parallel" responses in sender and receiver may be interpreted in two ways, either as expressive displays mediated by internal affective state or as "motor reflexes due to the contagion of the communicator's display" (McHugo et al. 1985, p. 1527).

Dimberg (1982) demonstrated that specific patterns of facial EMG activity are spontaneously produced when subjects are presented with "positive" and "negative" facial expressions of emotion. It was found that slides of happy and angry faces elicited increased zygomatic (happy) and corrugator (negative) facial muscle activity, respectively.

Inference Based on EMG Data. Dimberg (1982) has taken these findings as evidence that facial reactions to facial expressions are emotional outputs stemming from the observer's internal state. Nonetheless, the possibility that these results are due to imitative responding cannot be ruled out. While EMG may be used to differentiate generally "positive" and "negative" reactions, further differentiation among specific "negative" emotions (i.e. anger and fear) is not easily accomplished (Ekman 1982). Therefore, when a "negative" EMG site (e.g. corrugator) is activated in response to an angry face, it is impossible to know from this information alone whether the activity is part of an anger or fear response (or sadness, disgust, or contempt, for that matter). Thus, the use of EMG to distinguish simple "positive-negative" responses to facial expressions does not permit one to unequivocally conclude that EMG responses stem from emotion.

Facial EMG remains a valuable indicator of emotional response, offering on-line, moment-by-moment tracking of changes in the activity of the facial muscles associated with emotional expression. EMG is also largely immune to subject response tendencies and biases, while being able to detect changes in muscle tone invisible to the naked eye. However, as the above analysis has shown, facial EMG results are multi-determined, both emotionally and unemotionally. A particular muscle contraction may have been caused by imitation or emotion, and if by emotion, more than one may be involved.

If the researcher is concerned only with the "positive-negative" distinction of emotion (though this conceptualization has been criticized as simplistic and confounded with evaluation; Batra and Ray 1986), facial EMG may be sufficient as a dependent measure, presuming that imitation or other confounds are not a problem. However, if the research requires a complete description of the emotional response (linked to underlying theory of emotion), it becomes necessary to employ self-reported measures and, possibly, measures of physiological response. Thus, a combination of theoretically grounded self-reported and physiological measures with facial EMG should permit reasonably valid interpretation of the emotionality of reactions.

Support for Emotional Mediation

Studies which demonstrate emotional responses to emotional expressions do so in a variety of ways. These studies have employed measures such as behavioral observation (approach/avoidance; behavior checklists), electroencephalography (EEG), and facial EMG combined with self-report.

Dimberg (1988) replicated his earlier finding of increased zygomatic and corrugator activity in response to happy and angry facial stimuli, respectively, with the additional finding of corresponding self-reports of feelings of happiness in response to happy faces and feelings of fear in response to angry faces. As indicated above, this additional employment of self-report allows greater confidence in inferring that the facial responses were mediated by emotion.

Perhaps the strongest evidence of emotional responses to emotional expressions comes from Sackett (1966), who presented slides of various social and non-social stimuli to eight isolation-raised rhesus monkeys repeatedly at different points in their development beginning at 2-weeks of age and continuing up to 9 months, recording their behavior during each slide presentation. Slides of adult male monkeys displaying threat were accompanied by disturbance behavior and gaze aversion, which have been described as fear responses, while non-threatening monkey pictures were not met with these behaviors. Sackett concluded that these findings constituted evidence of an innate recognition and releasing mechanism for social communication.

Schwartz, Izard, and Ansul (1985), using a paired-comparison novelty discrimination test, presented 5-month-old infants with photos of adult women displaying anger, fear, and sadness in one

condition and anger, joy, and interest in another. They found that fear and sadness were discriminated successfully; infants looked at the novel stimulus longer than at the familiar stimulus. When the anger expression served as the novel stimulus, however, discrimination could not be assessed as there was a "marked tendency for infants to look away from, or to look less at, anger" (p. 71). The authors concluded that the novelty of expressions determined visual responses less than the inherent aversiveness or social significance of the anger expression.

Davidson and Fox (1982) measured the affective responses of ten-month-old infants to videotaped presentations of happy and sad facial expressions. The authors (measuring EEG activity elicited) found greater left frontal region activity in response to happy than to sad expressions. The authors consider the results to support the existence of a fundamental affective distinction between the hemispheres with regard to approach and avoidance tendencies. This asymmetrical frontal activity may reflect the ability of these facial expressions to elicit approach or avoidance behavior.

Further evidence of the impact of facial expressions on the behavior of infants is provided by Sorce, Emde, Campos, and Klinnert (1985). In this experiment, 12-month-olds were placed in a "visual cliff" situation, a steep grade ending in a four-foot cliff covered by hard, clear plexiglass. Infants were placed on the shallow side of the grade and their mothers produced facial expressions from the cliff side. Mothers smiled at their infants until they reached the edge of the cliff and then changed their expressions. When mothers changed to broader smiles or displayed interest, approximately 75% of the infants crossed the visual cliff toward their mothers. However, when mothers displayed sadness, 33% crossed, during anger, 11% crossed, and during fear expressions none crossed.

Conclusion

Based on the studies reviewed, it seems reasonable to conclude that perceiver reactions to emotionally expressive stimuli are indeed mediated emotionally. Supportive evidence has come primarily from studies of the behavioral reactions of infants and primates, while the results of adult studies have been equivocal due to the lack of clear criteria for the discrimination of emotional and imitative responding. Work in our laboratory is currently in progress which attempts to demonstrate the emotionality of reactions in adult perceivers, employing self-reported and facial response measures. This work employs the additional criterion of response complementarity in inferring emotional mediation.

SUPPLEMENTARITY AND COMPLEMENTARITY

With regard to social communications, the interface of emotions displayed by the sender and receiver may be said to be supplementarily or complementarily related.

Supplementarity

A supplementary emotional reaction is one which is equivalent in type to the emotional expression perceived. Such congruence of emotional quality between model and perceiver has been proposed to form the basis of empathy (Wispé 1986). An example of supplementarity is the well-documented reciprocation of the social smile (Kraut & Johnson 1979). Similarly, empathic responses to expressions of fear (e.g. reactions to horror films), sadness (e.g. reactions to "tear-jerker" films), and pain (e.g. Vaughan & Lanzetta 1980) may be viewed as supplementary.

Complementarity

Complementary interactions are those in which the adaptive emotional response differs from the emotional expression perceived. The prototypical complementary relationship is that of anger and fear. Commentary on this relationship has been surveyed by Plutchik (1980):

"...McDougall (1921) wrote that 'the fear-impulse is the most opposed in tendency to the pugnacious.' Tolman (1923) wrote: 'fear operates by leading away from [and anger] by leading towards and destroying.'...Carr (1929) added (1929) that 'Anger is correlated with an aggressive attack against obstacles, while fear is associated with the opposite type of behavior.'...Cannon (1939) has written about the 'fight or flight' opposition..." (p. 136).

Other potentially complementary relationships between emotions include reactions to disgust and contempt, which along with anger form Izard's (1977) "hostility triad". For example, disgust has been conceptualized as an emotion of fundamental rejection (Tomkins 1982) which, directed socially, is likely to elicit either sadness or anger depending upon the particular relationship in question. Examples of higher-level social affects which are complementary include instances of sadism (*schadenfreude*) which involves a "perceiver's" joy at another's distress, and envy which involves malice toward another's joy.

Similar Distinctions

The above distinction between complementarity and supplementarity has been made in clinical psychology in describing different modes of psychological "projection" of traits and emotional states. Complementary projection occurs "when an individual projects a trait that is different from his own (and) the projected trait is the complement of his own trait" (Holmes 1968, p. 250). Supplementary projection occurs when "the individual projects onto other people characteristics which are identical to his own..." (Holmes 1968, p. 253).

Similar distinctions have also been proposed by Heider (1958) and by empathy researchers Stotland, Sherman, and Shaver (1971). Stotland et al. (1971) designated instances in which the emotions of the perceiver and the perceived are highly similar as "simple empathy", and instances wherein the dyad

experience qualitatively different emotions as "contrast empathy". Heider (1958), in his theory of interpersonal relations, distinguished between "concordant" and "discordant" emotional reactions which are equivalent to simple and contrast empathy, respectively.

Inferring Emotion from Complementarity

A potential means to ascertain whether reactions to expressions of emotion are imitative or emotional would involve the comparison of subject facial reactions with regard to the nature of their correspondence with eliciting stimuli, using complementarily related emotions. As previously indicated, the findings of studies using supplementarily related emotions are inconclusive because such reactions may appear to be the result of either imitation or emotional mediation.

Demonstration of perceiver response complementarity can afford the inference of emotional mediation primarily because such a response is not imitative, by definition. To verify that emotion rather than imitation is the mediator, the response must be found reliably over time, across contexts, and across individuals.

For the response to be labeled emotional it must also meet the following requirements. First, the facial response must conform to the patterns of facial expressions of emotion which are cross-culturally recognized as representative of specific emotions and shown when experiencing the same emotion (unless cultural display rules preclude their exhibition; Ekman and Oster 1982). Second, the response should be adaptive; that is, the response should be a true "complement" to the stimulus expression in terms of its expression of action tendencies (Plutchik 1980). Finally, the response should be validated using multiple methods (i.e. psychophysiological measures, self-reports, and coding of expressive behavior).

EMOTIONAL RELEASERS AND PERSUASION

The finding that emotional expressions can serve as elicitors of specific affective reactions is of fundamental importance to an understanding of the effects of advertising, which now incorporates more emotional expression than ever before (Holman 1986). The psychobiological approach to emotion (Buck 1988; Kroeber-Riel 1979) is an appropriate framework for conceptualizing the eliciting effects of emotional expressions. According to the psychobiological model, the perceptual systems of individuals are biologically "attuned" for the reception of certain classes of stimuli which are important for adaptation (i.e. releasers) and for changing patterns of stimulation. Using these recognition rules, stimuli are "filtered" preconsciously, drawing attention toward biologically important stimuli and away from unimportant or repetitive stimuli. Thus, this model predicts that attention will be drawn toward the emotional expressions of others, a position supported by Kroeber-Riel's (1984) finding of increased frequency of eye fixations with ads containing "emotional pictorial elements", and Lang's (1990)

finding that "even a small amount of emotion in a message increases attention to that message" (p. 296). Intimately involved in the operation of the innate releasing mechanism are the attention/activation system (ascending reticular activating system; ARAS) and the subcortical emotional centers (limbic system). There is evidence that the ARAS and limbic structures receive direct inputs from sensory systems, and that these inputs are received before those leading to the neocortex, perhaps establishing a level of arousal and an emotional context for subsequent analytic cognition. The outputs of the attention/activation and emotional systems are communicated to the perceiver as immediate, wholistic sensory experience (syncretic cognition; Tucker 1981) which has been associated with right hemisphere functioning. An implication of the psychobiological model is that automatic operations of the attentional and emotional systems determine to some extent the inputs to analytic cognitive processing and the nature of that processing.

The psychobiological model suggests an important implication for persuasion strategy. Receivers of communications containing emotional releasers are likely to focus on these affective elements, resulting in the elicitation of emotional reactions. The corresponding emotional response (supplementary or complementary) should be experienced before any analytic evaluation, creating a specific emotional context within which to process a neutral stimulus.

A Comparison of Models of Attitude Formation and Change

The features of releaser-based persuasion may be explicated by differentiating such persuasion from the related persuasion mechanisms of peripheral-route processes and direct affect transfer (as in classical conditioning). Whereas the peripheral-route denotes an absence of argument scrutiny, the perception of releasers should increase attention to all message elements, particularly those which are integrated with the releaser through content or other associations (Kroeber-Riel 1979), and should shape interpretation by providing an emotional context. Furthermore, the elicitation of emotion by releasers does not preclude "central" analytic elaboration, which may proceed within the biasing context of the elicited emotion. Thus, releaser-based persuasion is not equivalent to the reliance upon an affective cue under conditions of low elaboration likelihood (cf. Petty, Cacioppo, Sedikides, & Strahman 1988).

Releaser-based persuasion may also be distinguished from the affect transfer of classical conditioning. First, emotional releasers elicit true emotions due to the significance of the information they transmit for the well being of the perceiver. Hence, releasers are not processed in the manner of usual unconditioned stimuli, such as odors and sounds, which produce pleasant or unpleasant sensory experiences. Second, the genuine emotion elicited by releasers should determine the emotional tone of the perceiver's thoughts toward other elements of the communication, providing an emotional grounding

for the development of attitudes. As classical conditioning involves the meaningless association of sensations with neutral stimuli, attitudes formed through conditioning are without emotional grounding, possibly resulting in weaker attitude development. Third, the formation of attitudes through exposure to releasers should not necessitate the repeated pairings required for conditioning because of the emotionality experienced at the first exposure (cf. Seligman 1970). This is not to say, however, that repeated pairings would not strengthen the association. The capacity of the association to be strengthened may be particularly relevant in cases wherein an otherwise neutral stimulus can acquire the characteristics of a releasing stimulus, as in package designs featuring releasers (e.g. the smiling Gerber baby, Quaker Oats man, and Aunt Jemima). Finally, while a major concern with classical conditioning is the question of subject awareness of the UCS-CS contingency, whether or not perceivers are aware of the intent behind the use of releasers should not matter, as the process is essentially automatic.

FUTURE RESEARCH

A practical implication of the psychobiological theory discussed herein concerns the methodology of ad testing. As previously indicated, the process of direction of attention may be seen as strongly influenced by subcortical emotional systems. Based on this notion, it is suggested that the elements of ads which are attended to by perceivers will tend to be those which elicit emotion.

While measures of attention such as eye-tracking techniques and recall tests give the researcher a record of the ad information picked-up by perceivers, the motivation behind the direction of attention is untapped. A greatly enriched picture of ad effects would likely emerge with the addition of converging emotional response measures, assessing changes in physiological arousal, expressive behavior, and subjective experience. While arousal may be measured as changes in skin conductance, an economical alternative may be the measurement of eye fixation frequency (Kroeber-Riel 1984). The most promising candidate for the measurement of subtle expressive behavior is facial EMG, which has been demonstrated to differentiate positive and negative reactions (Bagozzi 1991). The insertion of questions regarding the subjective emotional experience of the respondent into post-exposure interviews would serve to complete the measurement of emotional output. Combining these measures would afford the researcher knowledge of which elements were attended to, the valence and quality of perceivers' reactions to those elements, and the intensity of those reactions.

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Incorporating Consideration Sets Into Models of Brand Choice

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There has been a recent resurgence of interest in the notion of the consideration set and its precise role within the brand choice process. Behavioral researchers have examined the process of consideration set formation and use (Alba, Hutchinson & Lynch 1991; Baker, Hutchinson, Moore & Nedungadi 1986; Nedungadi 1990). A few quantitative models of consideration set formation have also been developed (e.g., Hauser & Wernerfelt 1990; Roberts & Lattin 1990). In this paper, we propose a model of brand consideration and choice, and examine the implications of incorporating consideration into brand choice models.

CONSIDERATION SETS

In order to incorporate consideration sets into the choice process, we view choice in two stages -- brand consideration and brand selection (see Nedungadi 1990). In the first stage, internally and externally generated retrieval cues lead to a situation-specific consideration set being brought to mind. In the second stage, the brands in this set are compared and one brand is selected for purchase. This separate focus on the consideration and selection stages is useful for a number of reasons. First, it highlights the fact that the processes that lead to brand consideration may be quite different from those that result in choice from the consideration set. While researchers have often alluded to two-stage choice processes, they have essentially treated consideration as an extended version of choice. Thus, brand preferences are often believed to drive both consideration set formation and choice. However, Nedungadi (1990) presents evidence that factors other than brand preference, such as brand accessibility and external retrieval cues may drive consideration set formation during choice.

A separate focus on brand consideration also allows for a more dynamic conceptualization of consideration sets. Thus, consumers need not "have" consideration sets that they carry to each purchase occasion, instead, the consideration set could be "brought to mind" spontaneously, as a first step in choice. Finally, a separation between consideration and selection stages also facilitates a distinction between the effects of marketing variables at each stage.

MODEL

We propose a simple logit model to capture the first, consideration stage of the choice process. Although logit models have been used extensively in the choice context, they have not been applied to brand consideration. Let $c_h \in U$ be the set of brands considered by individual h , and U be the universe of all brands in the product class. We assume that c_h contains at least one brand for all individuals. In addition, consistent with Hauser & Wernerfelt (1990) and Roberts & Lattin (1990), we assume that the

probability of considering each brand is independent. Let $A_{ih} = 1$ if brand i is contained in the consideration set of individual h , c_h , 0 otherwise. Then, the probability of considering brand i is expressed as:

$$Prob(A_{ih}=1) = \frac{1}{1 + \exp(-w_{ih})}$$

where w_{ih} is the consideration "value" of brand i for individual h . If there are M explanatory variables, then consideration value may be written as a linear function of these explanatory variables.

Functionally, we expect that $w_{ih} = \sum_{m=1}^M \gamma_{mi} Z_{mih}$ where Z_{mih} is the value of the m^{th} explanatory variable and γ_{mi} is the parameter associated with that variable for alternative i and is to be estimated empirically. Further, the value of γ_{mi} is indicative of the effect of the explanatory variable on likelihood of considering the brand.

Further, let $y_{ih} = 1$ if brand i is chosen by individual h , 0 otherwise. Then the probability of choosing brand i from consideration set c_h could be expressed as:

$$Prob(y_{ih}=1|c_h) = \frac{\exp(v_{ih})}{\sum_{j \in c_h} \exp(v_{jh})}$$

where v_{ih} and v_{jh} are brand utilities for brands i and j respectively, for individual h . This simple two-stage choice model is different from the traditional multinomial logit model where probability of choice is directly expressed as:

$$Prob(y_{ih}=1) = \frac{\exp(v_{ih})}{\sum_{j \in U} \exp(v_{jh})}$$

In this traditional model, brand choice probabilities are determined by relative utilities alone.

Thus, we propose a simple, two-stage choice model that incorporates both subprocesses of brand consideration and brand selection. The probability of brand consideration is expressed as a function of consideration value, while the probability of selection is expressed as a function of relative preference for brands in the consideration set. We test this model on a set of experimental data that includes measures of brand accessibility, consideration, choice and preference. Nedungadi (1987) collected data on choices of fast-food outlets. PC/LIMDEP (Greene 1988) was used to estimate the consideration choice model on this experimental data and compare it to the traditional choice model, both in terms of prediction and diagnostic insights. While details of the test are

provided in Nedungadi & Kanetkar (1991), our test led to the following conclusions:

1. Brand accessibility and acceptability have a greater influence on the brand consideration stage of choice and a lesser influence on the brand selection stage. As a result, marketing influences (e.g., reminder advertising) that increase accessibility are most important at this stage of the choice process.
2. While brand preferences are important during brand consideration, their chief role is in the brand selection stage when brands are compared for choice. Again, marketing influences that affect brand utilities (e.g., price discounts) are most likely to act at this stage, once brands have entered the consideration set.
3. Incorporation of the brand consideration stage greatly improves the predictive power of brand choice models.

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An Empirical Investigation of Consideration Set Formation

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Consideration has been demonstrated to be an important component in consumer judgement and choice (e.g. Campbell 1969; Hauser and Wernerfelt 1990; Nedungadi 1990). For example, if a product is unable to obtain consideration from a reasonably high proportion of the consumers in a product market, it may be incapable of attaining sufficient market share to ensure long run viability. However, little attention has been paid to the processes underlying consideration set formation (see Roberts 1989 for a recent exception). The current research examines the impact that variations in the accessibility of prior information and the number of previous choices have on the size and composition of subjects' consideration sets.

Consideration set alternatives are likely to be more accessible in memory than unconsidered alternatives, and are therefore likely to guide subsequent search (and choice) behavior (e.g. Biehal and Chakravarti 1986; Lynch et al. 1988). However, when these existing consideration set alternatives are no longer attractive due to a new set of task conditions, externally available brands are more likely to receive serious consideration.

Increasing the number of previous choices should also lead to an increase in the variability of alternatives included in individuals' final consideration sets, for three main reasons. First, previous selections made from subsets of alternatives may include alternatives satisfactory only relative to the other alternatives included in those subsets. Second, previous "errors" in selection are likely to carry over to subsequent choices. Finally, task factors may change from one choice occasion to the next, resulting in more varied alternative selections over time.

An experimental method, closely related to the one used by Biehal and Chakravarti (1983, 1986), was employed to test these suppositions. Subjects were randomly assigned to one of four initial information processing goal conditions, requiring them to make a choice, form overall evaluations, or memorize attribute information. An initial set of product information described a subset of four alternatives on four attributes. When this information was removed, information for a new subset of three alternatives was presented, and subjects were asked to make a choice from all seven alternatives previously encountered. Information for an eighth brand was then presented using the same four attributes as before, along with information for a new, fifth attribute presented for all eight brands. This final attribute was manipulated to be either extremely important or not at all important, after the original attribute information had been removed and was therefore available (if at all) only in memory. Subjects made a final choice from all eight brands, and were then asked to identify their consideration sets.

The results of the current study can be summarized in terms of three major findings. Subjects

with high accessibility for previously encountered brand information were significantly more likely both to include these brands in their consideration sets when they became subsequently more attractive, and to have consideration sets more varied in composition. For example, "brand A" became a very attractive choice alternative when the size attribute was identified as important, but became only moderately attractive when size was unimportant. Because brand A information was encountered with the original subset of product information, it was available subsequently only in memory. As shown in the Figure, subjects asked to memorize this original information were more likely to include brand A in their consideration sets when the size attribute was important. In contrast, subjects asked to evaluate or choose from the original subset of alternatives did not alter their consideration of brand A, regardless of the importance of the size attribute.

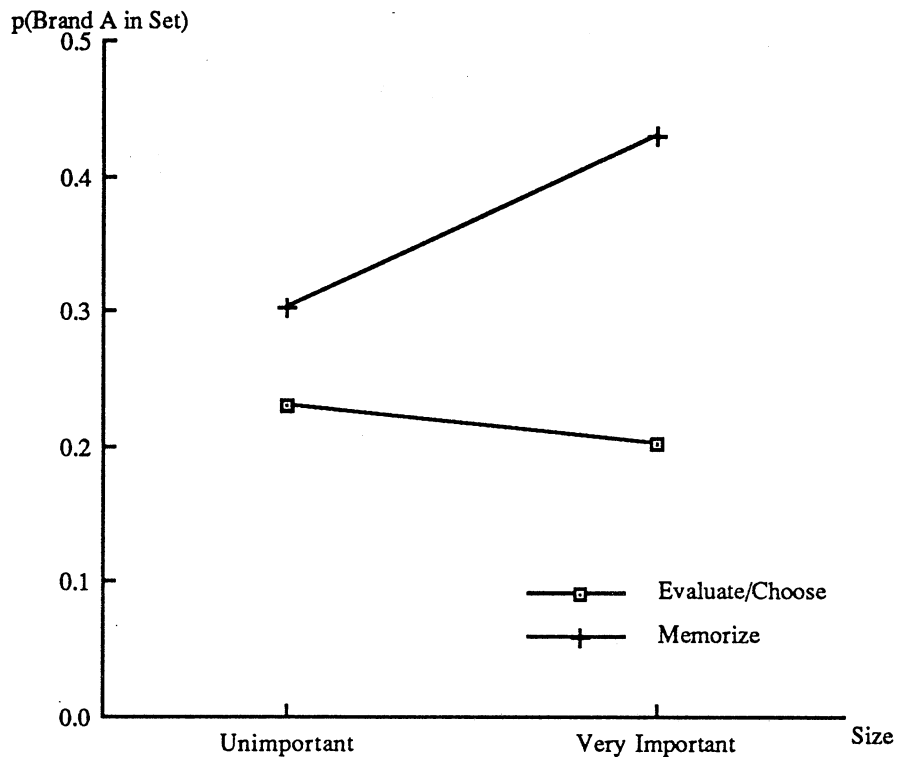
A second observation drawn from the current research is that, as the number of previous choices made by subjects increased, the number of previously selected alternatives included in their consideration sets grew, while the sizes of their sets did not change. Finally, the composition of subjects' consideration sets grew significantly more varied as the number of previous choices increased.

The results of this study have a number of practical implications. First, they suggest that, given enough prior choices, many consumers may eventually include only previously selected alternatives in their consideration sets. From a manufacturer's perspective, as consumers' experiences with brands in a product category grow, it becomes more and more difficult for new brands to achieve consideration. Conversely, early entrant brands can expect to achieve high levels of success if they can develop and sustain early consumer consideration. Second, the results of this study suggest that consumers' initial processing goals can strongly influence the particular set of brands that they will seriously consider. In many cases, it appears that consumers will be unwilling or unable to re-evaluate previously rejected alternatives, and that marketers essentially have only a single chance to obtain consumer consideration -- when the brand is first encountered.

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FIGURE
Probability of Brand A Consideration, By Initial Processing Goal and Size Attribute Importance



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Categorization Research and Brand Extensions

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SESSION OVERVIEW

At a time of escalating marketing costs and an increasing number of new product failures, marketers have turned their attention to brand extensions to reduce the expenses and risks associated with new product introductions. To explain how associations and evaluations of the original brand name can transfer to a brand extension, researchers have found categorization models to be a useful framework. According to the categorization approach, consumers evaluate a brand extension on the basis of the fit between the original brand and the product category to which the brand has been extended. This assumes that the existing brand and the extension product category exist in consumers' minds as relatively stable concepts.

How are brands and product categories cognitively organized? How do consumers mentally represent brands and product classes? Based on Rosch and Mervis's (1975) classic work in cognitive psychology, it has been suggested that consumers form relatively stable, hierarchical representations of product classes (e.g., cars), product types (e.g., sports cars) and brands (e.g., Corvette) in long-term memory. These categories are cognitively represented as collections of features (e.g., product or brand characteristics) which are organized around a central tendency, the prototype. It is further assumed that category exemplars vary in terms of their typicality or similarity to the category prototype and that similarity or "fit" with the category is based on a feature matching process.

Such a feature-based conceptualization, however, cannot account for the elaborative and interactive processes by which consumers perceive and evaluate brand extensions--processes that include the formation of cognitive structures related to the brand, to the existing products in the brand line, the extension product category, and the existing brands in the extension product category.

Recent research in psychology and consumer behavior suggests that the categorization process involved in the perception and the evaluation of brand extensions may be more flexible and context dependent than previously thought (Aaker and Keller 1990; Barsalou 1985; Boush and Loken 1991; Park, Milberg and Lawson 1991). For example, individuals may not use one organizing principle, such as similarity to a prototype, to assess typicality. Instead they may derive a category on the basis of functional goals (Barsalou 1985). Therefore brand extensions, too, may show a large degree of flexibility. Moreover, typicality itself seems to depend on the context in which an object is judged (Roth and Shoben 1983). As a consequence, the relationship between the original brand and the extension may also be mediated by contextual factors. In addition, the influence and affect transfer which occurs in brand

extensions may not be unidirectional. That is, perceptions of the core brand may be altered by the way an extension is perceived and categorized.

The session summarized here focused on these recent developments in categorization research on brand extensions providing evidence for the dynamic nature of the link between the original brand and the extension. Farquhar and Herr demonstrated the separate effects of the strength of the category-to-brand association (the dominance) and strength of the brand-to-category association (the typicality) in delineating the limits of using brand equity for brand extensions. MacInnis, Nakamoto and Mani investigated contextual factors that mediate the salience of knowledge domains to be used in consumers' judgments about product categories, and more specifically, in brand extensions. Manipulating the salience of common and distinctive features of brand extensions and existing branded products, Boush reported asymmetry effects as they occur in similarity judgments involved in consumers' perceptions of brand extensions. Based on work by Murphy and Medin demonstrating the role of theories in conceptual coherence (Murphy and Medin 1985), Bridges proposed a process model of brand extension evaluations, suggesting that the existence of explanatory links between the extension and the brand determines both the type of evaluation process that consumers engage in and the valence of their evaluation. Building on Bridges's model, Milberg and Park showed that the existence of explanatory links among existing products and extensions (product-level linkages) and the degree of consistency between brand extensions and the brand image (image-level linkages) affect the beliefs and attitudes toward the original brand and its current offerings. As additional evidence of the reciprocal impact of brand extensions on the original brand, Loken and Roedder-John showed that the degree of typicality of the individual product offerings to the brand category influences the dilution of the overall brand image.

In light of the evidence for contextual variability and sensitivity to context in consumers' perception of brand extension, the present session introduced a constructivist approach to categorization. Barsalou, who recently suggested that mental frames rather than feature lists may be the most appropriate representations of human cognition (Barsalou 1991), presented, in the introductory paper of the session, the basic tenets of frame theory. According to Barsalou, to capture all the information in natural knowledge, a mental representation must include mental structures for multivalued attributes, conceptual relations, and frame recursion. Such mental structures form the core of frame-like representations but are nonexistent in feature list representations. Viewing brand extensions as conceptual combinations, Schmitt and Dubé followed up on Barsalou's recent work and

demonstrated that a constructivist approach may be required to account for the emergence of highly contextualized and unique features of brand extensions.

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RECENT THEORETICAL DEVELOPMENTS IN CATEGORIZATION RESEARCH: THE VALUE OF FRAME THEORY

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According to a common view in categorization research, categories possess the property of graded structure. This paper discusses the various determinants of graded structure for different types of categories (e.g., common taxonomic categories and goal-derived categories) and reviews recent psychological evidence for the instability of graded structure. Moreover, studies are cited which suggest that categories may not be represented as independent feature lists but as attribute-value sets. For example, when individuals think about a particular car, abstract attributes will adopt specific values, such as "Liz" for "driver," "gasoline" for "fuel", "four-cylinder" for engine, and so on. In addition, the cognitive representation of categories may include relations and constraints (e.g., "driver" buys fuel, "fuel" flows to "engine"). In light of the evidence for contextual variability and against feature lists, frames rather than independent feature lists may provide the fundamental representation of knowledge in human cognition. Frames contain attribute-value sets, and the relations

of a frame connect attributes into a pattern of systematicity. Therefore, from a categorization perspective, frame theory may offer the most comprehensive theoretical model for the study of brand extensions.

BRAND EXTENSIONS AS CONCEPTUAL COMBINATIONS

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Following recent developments in cognitive psychology and linguistic research, we propose to view brand extensions (e.g. McDonald's Theme Park) as conceptual combinations. In conceptual combinations (e.g. "apartment dog") the former noun ("apartment") is seen as a modifier that contextualizes the attributes of the latter noun ("dog") called the "header." In this process, individuals make extensive use of their world knowledge and attributes may be evoked that are not typical of either constituent concept (e.g., the attribute "neurotic" for "apartment dog"). Similarly, in brand extensions the original brand or company name (e.g. McDonald's) may act on the "head concept" of the extension category (e.g. theme parks) as a "modifier." Using a variety of fictitious extensions, we show that brand extensions exhibit the same degree of flexibility and sensitivity to context as conceptual combinations. Moreover, preliminary evidence suggests that the contextual and relational structure of brand extensions may be best explained by dynamic frame-like structures rather than relatively static feature list representations.

DOMINANCE AND TYPICALITY IN BRAND EXTENSIONS

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This paper explores the effects of dominance and typicality on extending a brand across product categories. We begin by defining "dominance" as the strength of the category-to-brand association, and "typicality" as the strength of the brand-to-category association for a consumer. We compare these definitions with others used in categorization research and then examine several operational measures of dominance and typicality.

This paper considers previous research by Herr, Farquhar, and Fazio (1990) that shows how learning associations for a new brand extension depends upon the brand's dominance in the parent category and on the relatedness of the parent and target categories. Since dominance and typicality are correlated for many brands, the present research measures their separate effects on brand extendability. These results on typicality are compared with other findings recently reported in the consumer research literature.

This paper then separates the effects of dominance and typicality in determining the boundaries of a brand franchise. When the same brand has been extended to a variety of target categories, we show how the brand's dominance in the parent category is unaffected, but typicality is diminished. We examine the vulnerability of such a brand against

competitive strategies for product and brand positioning.

CONTEXTUAL VARIATIONS IN PRODUCT CATEGORY COMPARISONS

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Considerable research in the brand extension domain has indicated that similarity between an original and extension product category is a critical predictor of consumers' evaluations of a brand extension (Aaker and Keller 1990; Boush et al 1987; MacInnis and Nakamoto 1991). However, many questions arise about how such similarity judgments are made. First, what are the knowledge domains consumers use to judge comparability or similarity across products? Products may not only share physical attributes, but also benefits, usage occasions, usage locations, users, etc.

Second, are certain knowledge domains consistently more salient (i.e. more strongly tied to the product category than others)? For example, across comparison contexts, are the physical attributes which two product categories share more likely to come to mind than similarities in other domains? Attribute similarities may in fact be more salient due to their physical observability (Paivio 1971) and their role in defining category membership.

Third, what factors moderate the salience or activation of knowledge domains? Consumers' knowledge about individual product categories, context effects created by the specific product categories being compared, the task (similarity, choice, evaluation), and other information inherent in the task context may influence the extent to which certain bases are salient (Chakravari and Lynch 1983). Understanding the moderators of salience is important from a marketing context since marketers are often in a position of communicating attribute similarities or differences between two product categories that may not have been immediately obvious (salient) to consumers.

Fourth, to what extent will the activation of similarities between product categories in a certain knowledge domain also affect perceived differences among product categories. Will, for example, comparisons of the similarities between two product categories on a goal derived category also cue consumers to differences between product categories on goal-derived categories? The salience of specific bases may not only be a function of knowledge structure and the task (as indicated above) but also of a spreading activation effect achieved through elaboration (Collins and Loftus 1975).

Finally, to what extent will articulated similarities and differences between two product categories in specific knowledge domains map onto global perceptions of similarity. Will articulated dimensions only partially reflect overall similarity judgments?

We report an exploratory study designed to address these issues. We examine the nature of consumers' knowledge structure for a product category,

and its influence on the comparison of disparate products. We also examine the factors which affect the salience of various domains of knowledge in comparing products. We investigate the role that articulated similarities have on articulating differences among product categories. These results have both theoretical and methodological implications for research which studies product category comparisons.

A SCHEMA UNIFICATION MODEL OF BRAND EXTENSIONS

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This research proposes a model of the process by which consumers judge brand extensions, then uses the model to identify variables that affect the evaluative outcomes of the judgment process. Underlying the model is the idea that the perceived fit between the extension and brand expectations determines both the type of evaluation process consumers will engage in and the valence of their evaluations.

Based on work in the categorization literature by Murphy and Medin (1985), the key notion of an explanatory link is developed to explain how consumers make sense of the relationship between the extension and the brand. By forming explanatory links at the product or image level, consumers are able to understand how products in the brand line fit together and, consequently, are able to maintain a cohesive, unified brand schema.

Two experiments support hypotheses concerning variables that affect consumers' ability to find explanatory links and, thereby, affect perceived fit. These variables are type of brand schema, type of relationship between the brand and the extension, and type of extension information provided to consumers. Type of brand schema depends on the dominant type of associations consumers have for the brand: concrete/product-related, abstract/product-related, or image-related. The relationship between the brand and the extension is characterized as being of two types: shared physical product attributes (e.g. a watch and a kitchen timer) or no product-level relationship (e.g. a watch and a handbag). The type of information provided to consumers about the extension may be designed to raise the salience of the explanatory link, or to raise the salience plus relevance (i.e. importance) of the explanatory link.

Specifically, when the brand and the extension share physical product attributes, evaluations are higher if the brand's schema is image-related than if it is product-related. The effects of this interaction between schema type and brand-to-extension relationship are moderated by information provided about the explanatory link between the extension and the brand.

Predictions regarding the process model itself also are supported in an experiment in which thought protocols are elicited from participants. Subjects engage in holistic, category-based processing when the extension clearly fits or clearly does not fit with brand expectations. Perceived fit also affects the incidence of nullifying and supporting argumentation

in the evaluation process and, ultimately, the valence of the evaluations.

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THE RECIPROCAL RELATIONSHIP BETWEEN BRAND AND EXTENSION

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This paper examines situations in which brand extensions have either a positive or negative impact on the beliefs and attitudes toward the originating brand and its existing products. In particular, this research explores the role played by perceived category coherence (when the grouping of objects makes sense to the perceiver) in understanding when extensions dilute brand associations, fortify and enhance existing beliefs associated with the originating brand, or systematically modify and expand brand associations to adapt to changing markets.

According to ideas introduced by Murphy and Medin (1985) and applied to brand extension research by Bridges (1990), perceptions of category coherence are based on consumers' ability to recognize explanatory links among existing products and extensions (product-level linkages) and perceptions of how consistent products are with consumers' understanding of the brand image (image-image linkages).

When an extension is inconsistent with the brand image it can weaken existing brand beliefs, causing confusion and negative affect. When there are weak product-level linkages, associations with specific products and their related qualities can be diluted. This can also create confusion as to the definition of the business the firm is pursuing. On the other hand, when consumers perceive sensible product-level linkages and consistency between brand extensions and the brand image, extensions should serve to fortify and enhance existing brand beliefs. Conditions under which existing brand beliefs are systematically modified by the introduction of brand extensions, producing positive outcomes, are also explored.

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ASYMMETRICAL INFLUENCE BETWEEN BRAND AND EXTENSION

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The recently-voiced perspective that brands can be viewed as categories (Boush and Loken 1991) stresses both the importance of graded structure (a typicality gradient from the most to the least

representative products that share a given brand name) and the flexible, constructive nature of brands as "ad hoc" categories (Barsalou 1983, 1985). Further, the transfer of attitude from a brand's existing products to a new product does not occur in an "all or nothing" fashion. Rather, it is a linear function of the degree to which a product is perceived to represent the brand. The notion of brand attitude transfer based on a typicality gradient suggests that the key to understanding brand extension effects is to understand the structure of brands as categories and the way marketers can influence that structure.

According to Tversky's (1977) contrast model, consumers consider both matching and distinctive features when making similarity judgments (e.g. judgments about the similarity between a potential brand extension and existing branded products.) Perhaps the most significant implication of the contrast model is that it predicts asymmetries in similarity judgments (i.e. the variant is more similar to the prototype than vice versa). Family branded products are frequently (if not usually) characterized by extension from relatively representative (prototypical) products to less representative variants. For example, Hallmark has extended from greeting cards to other products involved with "social expression" such as gift wrap and paper party goods. Asymmetry in similarity judgments implies both that some products might be considerably better than others if you want to enter a new category, and that the flow of attitude from existing products to extensions might be stronger or weaker than reciprocal flow. The contrast model has been demonstrated for consumer products (Johnson 1986) but not in a brand extension context. Data will be reported concerning: (1) the existence of predicted asymmetries in similarity judgments; (2) effects of brand names (including secondary brand names) on similarity judgments; and (3) effects of brand names on asymmetries in product similarity judgments.

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THE NEGATIVE IMPACT OF EXTENSIONS ON THE BRAND

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Researchers are increasingly relying on categorization theories to attempt to understand the manner in which the original product category structure impacts judgments about brand extensions (Boush and Loken 1991; MacInnis and Nakamoto 1990; Park et al 1989). The present research identifies situations in which brand extensions may be more or less likely to "dilute" brand equity associated with the brand's current product offerings. We define brand equity associated with the overall brand image in terms

of the attribute associations that consumers have learned to associate with a brand name and that underlie favorable impressions of the brand. Brand equity dilution is, therefore, a decrease in the strength of these beliefs about the originating brand resulting from brand extensions.

However, brand equity dilution may also be seen as having effects on belief about the brand's current individual product offerings. It seems likely that products closely associated with the originating brand name and considered to be more typical exemplars of the originating brand's product offerings would be most affected by situations that dilute overall brand image. Atypical instances are more likely to be disassociated from the category and less likely, therefore, to be influenced by overall category judgments. Thus, we anticipate that the greater the typicality of individual products marketed under the originating brand name, the greater will be the dilution of beliefs about those individual products.

In sum, our research identifies situations that influence dilution of the overall brand image and examines the parallels between these effects and the effects on dilution associated with the brand's current individual product offerings. These latter effects are examined as a function of the degree of typicality of the individual product offering to the brand category.

Cognitive Associations and Product Category Comparisons: The Role of Knowledge Structure and Context

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ABSTRACT

Research in such domains as choice among noncomparable alternatives and brand extension strategies is rooted in the cognitive associations consumers make among product categories. This paper describes an exploratory study aimed at identifying the domains of consumer knowledge regarding product categories, and the contextual variables that influence the salience of these knowledge domains. The results have both theoretical and methodological implications for research on product category comparisons.

INTRODUCTION

Consumer researchers are increasingly interested in understanding the cognitive processes involved when consumers make comparisons among two or more product categories. Two relevant research domains in which knowledge in this area is central are (1) consumer choice and decision making and (2) brand extension strategies.

Choice among product categories (i.e., noncomparable alternatives) is thought to occur by comparisons of abstract attributes which the two product categories share (Johnson 1984). For example, even though fur coats and stereos are not comparable on any physical attributes, they may be compared (i.e., are similar) in terms of the level of status each communicates. Johnson (1984) proposes that this abstraction process occurs because the two product categories belong to a similar superordinate level category, while Bettman and Sujan (1987) propose that this abstraction process occurs because the product categories achieve similar goals, and are hence members of the same goal-derived category (Barsalou 1985). Because relatively little is known about the structure of consumer knowledge regarding product categories, and the various conditions that make certain kinds of knowledge more or less salient, the nature of the abstraction process operating in a given consumption context is unclear.

The second domain in which knowledge of product category comparisons is relevant is that of category extensions. A category extension occurs when a brand in an established product category (Woolite) is extended to a novel category (rug cleaners). Although it has been suggested that consumers' evaluations of an extended brand depend on attribute similarity between the established and extended product categories (Aaker and Keller 1990), little is known about the knowledge domains consumers use to judge similarity among product categories.

RESEARCH ISSUES

The emergent findings in these two research areas raise several questions about the structure and use of consumer knowledge. First, what are the knowledge domains consumers use to judge comparability or similarity across products? Although Johnson (1984) uses the term "attribute" as a knowledge domain, the term is vague and obscures the potentially rich domains that may comprise knowledge of product categories. Products may share not only physical attributes, but also benefits, usage occasions, usage locations, users, etc.

Second, are certain knowledge domains consistently more salient (i.e., more strongly tied to the product category) than others? For example, across comparison contexts, are the physical attributes which two product categories share more likely to come to mind than similarities in other domains? Attribute similarities may in fact be more salient due to their physical observability (Paivio 1971) and their role in defining category membership. On the other hand, Barsalou (1982) shows that beyond a core of defining features, attribute salience is a function of the context--notably the composition of the comparison set and the associated judgment task.

Third, the salience of specific bases may be a function not only of knowledge structure and the task (as indicated above), but also of a spreading activation effect achieved through elaboration (Collins and Loftus 1975). To what extent, then, will the activation of similarities between product categories in a certain knowledge domain also affect perceived differences among product categories? Will, for example, consideration of the similarities between two product categories in a knowledge domain also cue consumers to differences between the product categories in that domain? Or will the goal-directed salience of consistent attributes inhibit activation of these differences (Fiske and Taylor 1984)?

Finally, what factors moderate the salience or activation of knowledge domains? Context effects created by the specific product categories being compared, the task (similarity, choice, evaluation), and other information inherent in the task context may influence the extent to which certain bases are salient (Chakravarti and Lynch 1983). Understanding the moderators of salience is important from a marketing standpoint since marketers are often in a position to communicate attribute similarities or differences between two product categories that may not be immediately obvious (salient) to consumers.

We report an exploratory study designed to address these issues. Using a thought-listing task, we examine what aspects of a consumer's knowledge structure for a product category become salient in comparing categories. We also investigate the role that articulated similarities have on articulated

TABLE 1
Referent and Comparison Product Categories

Referent Categories	Tomato Sauce	Ballpoint Pens	Dogfood	Ice Cream	Cornflakes
1	Tomato Paste	Mechanical Pencils	Puppy Food	Ice Cream Bars	Bran Cereal
2	Tomato Puree	Markers	Catfood	Butter	Oatmeal
3	Apple Juice	Disposable Razors	Canned Tuna	Frozen Dinners	Birdseed
4	Dill Pickles	Staples	Flea Collars	Chocolate Syrup	Bread
5	White Wine	Auto Parts	Shoes	Canned Peaches	Beer

differences among product categories. We consider two primary methodological questions as well--first, the extent to which articulated similarities and differences predict overall similarity between product categories, and second, the impact of the thought-listing task itself on global similarity judgments.

Most importantly, we examine the influence of three contextual factors on the salience of various domains of knowledge. One context factor is the "base" or "referent" product category. More specifically, product categories are likely to differ in the extent and domains of knowledge available to be used in a comparison judgment. A second context factor is the comparison product category. By manipulating the comparison category we are likely to vary the amount and types of knowledge regarding the referent category that will be relevant to the comparison. A final context variable concerns the more general knowledge bases that may be cued from the situation. Via experimental instructions, we attempt to cue particular functional bases for relating the categories being compared. We show that these contextual variables are all critical to understanding the category comparison process and its informational antecedents.

METHOD

Subjects, Design, Procedures

One hundred thirty-eight undergraduate and graduate students participated in this study. Each subject completed a two-part questionnaire. Instructions at the beginning of the questionnaire told students that their task was to examine product category pairs and to judge the extent to which they were similar. The instructions also contained a cueing manipulation. The cue was designed to prime specific knowledge structures relating the two categories. One

third of the students were simply told to assume that the products were sold by the same company. The second group of students was told to assume that a company that produces the first named product decides to manufacture and market the second product (a brand extension). The third group of students was given the brand extension instructions, and in addition was told that in many cases factors such as manufacturing and marketing synergies are important in extending brands. The three cues were designed to provide progressively stronger priming of potential marketing and manufacturing-related similarities and differences between the two products.

In part 1 of the questionnaire, subjects evaluated the overall similarity between a given (referent) product category and five different comparison product categories.¹ The referent and comparison categories are shown in Table 1. For example, one group of subjects evaluated the similarity of tomato sauce to tomato paste, tomato puree, apple juice, dill pickles, and white wine. Subjects were asked to rate each of the five product category pairs on a 1 to 9 similarity scale (1= not at all similar; 9= very similar).

¹The five variants were selected as part of a pretest designed to identify products that represented a slight variant on the existing product (control), or had high vs. low similarity on naturally salient features and high vs. low similarity on nonsalient features. Subsequent analyses indicated that this manipulation was not successful. Only two broad classes tended to emerge--those comparison categories that had obvious high levels of feature overlap with the referent category and those for which the overlap, if it did exist, went largely unnoticed.

TABLE 2
Salience and Importance of Bases Used to Judge Similarities among Product Categories

Basis	Number of Similarities Noted	Average Importance Rating	Number of Differences Noted	Average Importance Rating
Product Attributes	1.39	5.77	1.33	5.98
Usage	0.41	6.74	0.46	6.42
Usage Occasion	0.28	6.12	0.19	5.78
Benefits	0.16	5.67	0.15	5.19
Purchase Location	0.16	5.67	0.04	6.13
Packaging	0.16	4.65	0.13	4.75
Users	0.10	5.74	0.13	6.03
Targets	0.08	6.72	0.06	6.60
Production	0.07	6.21	0.05	5.81
Marketing	0.03	4.75	0.02	5.00
Purchase Situation	0.01	4.85	0.009	4.55

Part 2 of the questionnaire followed immediately. As in part 1, each subject was shown a referent category and five comparison categories drawn from those shown in Table 1. The pairings of base categories in parts 1 and 2 were counterbalanced across subjects. Thus, different product categories always served as referents in the two parts of the questionnaire. In addition, presentation order of the comparison products was randomized within groups in both parts 1 and 2.

In part 2, for each referent-comparison product combination, subjects were asked to articulate the ways in which the product categories were similar and different. Following this thought-listing task, consumers were asked to rate the overall similarity of the two product categories, again on a 1-9 point similarity scale. They were then asked to rate on a 1-9 point importance scale the extent to which each articulated similarity and difference influenced their overall similarity judgment.

Dependent Variables

A content analysis of the thought-listing data was conducted to identify the knowledge domains tapped when comparing product categories. This analysis identified 11 general categories which are presented in Table 2. The number of similarities and differences represented for each knowledge domain, and the average weight of the items from each domain were used as dependent variables in the analysis. In addition, the similarities and differences were used to

predict the overall similarity rating, by multiplying the average weight of the items listed for a domain by the number of items listed from that domain. These weighted scores for similarities and differences were then used in a regression analysis to predict the overall similarity rating.

RESULTS

Product Knowledge Salience in Category Comparison

The number of items identified as similarities and differences between product categories for each of the identified knowledge domains was tabulated, with the average importance value attached to the items in each domain (Table 2). These data allow us to analyze the structure of product category knowledge and the salience of knowledge domains. The mean number of similarities and differences articulated for each of the eleven domains indicated that some domains were consistently more salient than others. That is, some domains were consistently used to discuss ways in which the products were similar and different. The most common domain for judging both similarities and differences concerned physical product attributes. A mean of 1.39 statements reflected physical similarities between the product categories while 1.33 statements reflected differences between the attributes of the product categories. Thus, physical similarities and differences among product categories appear to be salient in the context of category comparisons.

A second general domain of consumer knowledge for product categories concerned consumers' self-orientation (e.g., usage) with the product. This general self vs. product domain contained several sub-domains. Consumers' considered similarities and differences in how products are used ($\bar{X} = .41$ and $.46$ similarities and differences, respectively), when the products are used ($\bar{X} = .28$ and $.19$), why the products are used (their benefits) ($\bar{X} = .16$ and $.15$), and who uses the products ($\bar{X} = .10$ and $.13$, respectively).

Less salient to consumers, though still articulated, were thoughts regarding the similarities and differences between products in terms of their marketing or production aspects. Noted similarities and differences between products in their packaging ($\bar{X} = .16$ and $.13$, respectively), their distribution ($\bar{X} = .16$ and $.04$), their production ($\bar{X} = .07$ and $.05$), and their marketing tactics ($\bar{X} = .03$ and $.02$) were not very common. The finding that consumers rarely consider marketing and manufacturing synergies between two products when judging overall similarity has obvious implications for brand extension research. Although product category extensions are often based on marketing or manufacturing synergies that the established and extended product categories share, consumers may not consider such synergies when they judge the value of an extended product.

It is likely that many of the thoughts expressed arise from an elaborative spreading-activation process. The question was raised earlier as to whether domains accessed as sources of similarity would also cue differences from the same domain. The number of items in each domain expressed as similarities and differences are notably symmetric, i.e., the more similarities noted in a domain, the more differences were likely to be expressed as well. While this symmetry may be related to the structure of the thought-listing task, it is suggestive that, at least in the context of category comparison, domain-specific priming rather than item-type (similarity vs. difference) priming appears to be operating.

The other measure taken with respect to these items was their subjective importance to overall similarity judgment (see Table 2). While there are meaningful differences among these ratings which will be considered later, it is notable at this point that subjects generally perceived the self-orientation domains to be most important. Thus, even though product attribute associations were more numerous, they were not perceived to be the most central in judging overall similarity. However, the variation in weights is not large; in other words, given that an item in a domain was identified, it was perceived to be at least moderately important to overall judgment.

These results indicate that the subjective importance of a knowledge domain and the extent of salient knowledge in that domain are separate constructs. The number of items expressed likely reflects a broad range of salient product knowledge, while the importance weights are likely to provide a link to the specific judgment task. Thus, it is likely that both aspects are required in examining the

relationship between salient product knowledge and global judgments.

Articulated Features and Global Category Similarity

In order to examine the mapping of expressed knowledge and global judgments, the articulated similarities and differences were used to predict overall similarity of the referent and comparison categories. The number of items from each similarity and difference domain was weighted by the average importance rating of those items. These indices were used as independent variables in a regression analysis of the overall rated similarity of the two categories. The overall model was highly significant ($p < .001$), with the variables in the equation accounting for approximately 43% of the variance in overall similarity scores. A similar regression using only the number of items (unweighted by subjective importance) accounted for only 32% of the variance in overall similarity ratings, again indicating the need to consider the importance weights.

As would be expected, the parameter estimates for each knowledge domain indicate that all similarities between the referent and comparison product category are positively related to overall similarity judgments (except marketing, which has a nonsignificant negative coefficient), while all differences between the referent and the comparison product category are negatively related to overall similarity judgments. Moreover, the coefficient estimates suggest that bases which are most important (i.e., self-related bases) have the strongest influence on overall similarity assessment. Thus, similarities in product usage and users have strong positive effects on similarity assessment ($b = .22$, $b = .20$, respectively), while differences in product usage and users have strong negative effects on similarity assessments ($b = -.13$ and $-.17$, respectively). These findings suggest that the number of items identified and the importance weights attached to articulated items are relatively good predictors of perceived similarity.²

CONTEXT EFFECTS

Referent Product Category Knowledge and Associated Context Effects

ANOVA's on the total number of similarities and differences and the number of similarities and differences regarding each of the eleven bases and their respective importance weights (see Table 3) revealed several interesting findings. First, the total

²The regression results also suggest that the respondents' subjective importance weights underweight important knowledge domains. In other words, the subjective weights are the respondent's estimates of the coefficients in this model. Were they accurate, the model coefficients would all have been equal. In fact, they add even more weight to the domains perceived by respondents to be important.

TABLE 3
Number of Similarities and Differences

	Referent Category	Cue	Cue x Referent	Comparison Category	Cue x Compar	Referent x Compar
<i>Similarities</i>						
Total No.	***		***	***		**
Product Atts.	***	**		***		***
Users	***					*
Usage	***			***		***
Usage Occasion	***			***		***
Production	**					
Purchase Location		**	**			
Benefits	***			**		
Targets	***			*		**
Packaging	***			***		***
Purchase Situation		**				
Marketing			*			**
<i>Differences</i>						
Total No.	***		***	***		**
Product Atts.	***		**	***		*
Users	***			***		***
Usage	***			***	*	***
Usage Occasion	***			*		***
Production	***					
Purchase Location			**	**		*
Benefits	***			***		***
Targets	***			***		*
Packaging	***		*			
Purchase Situation						
Marketing						
***	p<.001					
**	p<.01					
*	p<.05					

number of similarities and differences revealed significant referent product category effects ($p < .001$, $p < .001$ for total similarities and differences respectively). The mean number of similarities and differences for each product category reveal that consumers articulate significantly more similarities and differences for some products (i.e., cereals, ice-cream, pens) than for others (tomato sauce, dogfood). These results suggest that the knowledge structure of some product categories is more elaborate than the knowledge structure of others, leading to the identification of more similarities and differences with the comparison product category.

Some product categories, therefore, may be more easily compared to seemingly unrelated product categories than others. Consumers' knowledge structures for some categories may be sufficiently elaborate to allow the use of a broader range of both similarities and differences as bases for category comparisons (cf. Beattie 1981). As a result, some

product categories may be more or less extendable than others. How these perceptions map onto consumer acceptance of an extended brand remains to be examined.

Second, significant referent product category effects were found for many knowledge domains. For example, consumers articulated fewer attribute similarities and differences among product categories when the referent product category was dogfood ($\bar{X} = .928$ and $.741$ for similarities and differences, respectively) than when the referent product category was ice cream ($\bar{X} = 1.83$ and 1.42). Thoughts regarding similarities and differences in product usage were most common with pens ($\bar{X} = .66$ and $.76$) and least common for dogfood ($\bar{X} = .18$ and $.20$). Similarities and differences regarding product benefits were most evident when the referent product category was cereal ($\bar{X} = .27$ and $.27$) and least evident when the referent product category was pens ($\bar{X} = .06$ and $.08$).

Knowledge of the multiple uses to which cereal can be put and knowledge of its multiple benefits (nutrition, taste, satisfying hunger) suggest that this domain of knowledge for cereals is highly elaborated, while for pens it is not. These findings suggest that product specific knowledge in effect frames or provides a context for the nature of the comparison by identifying the bases on which the comparison can be made.

Context Effects Associated with the Comparison Product

Significant main effects for comparison product category and interactions between referent and comparison product were found across many of the knowledge domains (see Table 3). Although the complexity of the data preclude complete reporting of the nature of these interactions, their presence illustrates a different context effect from the referent category knowledge effect noted above. The knowledge domains tapped in judging similarity of product categories is influenced by the context in which the referent product category is evaluated (i.e., the comparison product)(see Tversky 1977). Comparing products to different product categories means that different bases will be salient. In effect, this finding confirms Barsalou's (1982) notion that associations that are likely to be salient for a product depend on the context in which the product is embedded.

A central problem in the study of multiple distinctive categories is the identification of some a priori basis for characterizing the relationship among the categories. The effects of referent and comparison category found here suggest that the explicit elicitation of shared and unique features may provide a fruitful approach to this problem.

Context Effects Associated with the Cueing Manipulation

The study also revealed that the number of similarities and differences noted within each domain was influenced by the presence of an explicit cue. Specifically, the cueing manipulation appeared to influence which aspects of product categories were selected for processing (see Chakravarti and Lynch 1983). Although the cueing manipulation was generally weak, and did not affect the total number of similarities and differences consumers noted between two product categories, it did have the effect of reducing the number of similarities consumers saw between two products in terms of their attributes ($p < .01$). It also increased the number of similarities consumers saw between the purchase locations of products (i.e., distribution; $p < .01$) and the number of similarities regarding the purchase situation ($p < .01$) (see Table 3).

Thus, it is possible to alter via cueing the nature of associations consumers make between two product categories. Moreover, marketing managers may have control over the type of associations that are made. Through marketing communications, marketers can cue for consumers similarities and differences on attributes that may not be immediately

salient to them. This effect is important both for enhancing consumers' perceptions of the viability of an extended brand and in altering the nature of their comparisons between seemingly noncomparable products.

Limitations of the Thought-Listing Method

An obvious issue regarding the methodology applied in the present study is that the thought-listing task may lead to self-fulfilling overall judgments. In order to assess the magnitude of this problem, we compared the overall ratings taken in part 2 of the study with those provided in part 1. In part 1, no thought-listing task was imposed on judgment. However, the cueing manipulation was present for both parts.

The impact of thought-listing was examined in an ANOVA on the global similarity judgments using referent category and cue as between-subject factors, and comparison product and presence or absence of thought-listing as within-subject factors. As expected, thought-listing had a significant effect on judgments ($F_{1,89} = 106.91$, $p < .001$), an effect that was moderated by a significant interaction with cueing condition ($F_{2,89} = 3.96$, $p < .05$). In addition, the type of comparison product affected the impact of thought-listing ($F_{4,356} = 8.42$, $p < .001$).

The mean global similarity ratings are shown in Table 4. In general terms, thought listing increased the global similarity rating between categories. However, the impact of this elaboration diminished as the comparison product category was perceived to be less similar to the base category. Thus, in elaborating, subjects appeared to search for more bases for similarity, an exercise that was more successful when there was obvious consistent feature overlap between categories (comparison categories 1 and 2) than when there was less obvious feature overlap between the categories (comparison categories 3, 4, and 5). In addition, the cue alerting the subjects to the possible importance of marketing and manufacturing synergies also decreased the impact of elaboration. The types of thoughts elicited shed further insight on this finding; this cue increased the number of purchase location similarities but decreased the number of physical feature similarities. This is again consistent with the notion that the increase in global similarity from elaboration was based on elaboration of obvious consistent feature overlap.

SUMMARY AND IMPLICATIONS

In this study, we have examined featural bases underlying judgments of the similarity of categories. Our first results provide insight on the domains of knowledge applied to this comparison task. These results indicate that consumer knowledge about products spans several knowledge domains: knowledge about physical product attributes, benefits, usage, users, and marketing-related attributes. In making judgments about category relationships, salience and importance of a knowledge domain are different: concrete elements such as physical attributes tend to be highly salient, but self-related elements associated with product consumption tend to

TABLE 4
Comparisons of Overall Similarity Assessments Given the Presence or Absence of Thought-Listing

Comparison Product Category ¹	Cue	No Thought-Listing	Thought-Listing	Change
1	1	4.92	7.56	2.64
	2	5.23	7.08	1.85
	3	5.88	7.33	1.45
2	1	3.56	6.44	2.88
	2	4.08	5.83	1.75
	3	4.63	5.90	1.27
3	1	1.67	2.47	.80
	2	2.08	2.93	.85
	3	1.85	2.58	.73
4	1	2.11	3.72	1.61
	2	2.63	4.55	1.92
	3	2.38	2.88	.50
5	1	1.36	2.50	1.14
	2	2.23	2.10	-.13
	3	1.28	1.93	.65

¹ Comparison category numbers refer to those in Table 1.

be most important. In general, while marketing-related elements lack salience, they are moderately important once elicited. In addition, elaboration does not seem to distinguish between similarities and differences; rather, salience appears to derive from the knowledge domain.

From a methodological perspective, articulated knowledge bases and importance weights strongly predict overall similarity assessments, suggesting that these information elements are linked to the similarity judgment task. Our initial concern was the thought-listing task itself would severely distort the judgment process. However, our results suggest that while thought listing magnifies the knowledge effects (most likely because of the extended effort at memory elaboration), it does not appear to change the basic patterns of judgment. It should be noted, however, that our results must be interpreted in light of the specific similarity judgment tasks assigned.

We view the referent category, comparison category, and instructional cues as defining a judgment context. With respect to referent category, we found that product category knowledge varies in its level of elaboration, thus influencing the number of similarities and differences consumers can perceive between the referent and comparison brand. Moreover, the elaboration is domain-specific, and the domains elaborated vary across referent categories. In combination, these findings suggest that the referent category, to a significant extent, defines the "rules" of comparison. The comparison category appears to moderate this referent category effect, emphasizing as critical bases for comparison overlapping and unique

features within the relevant domains. The impact of the cue further suggests that external stimuli can affect the salience and importance of specific knowledge domains, and thus the featural bases used in the judgment process.

While speculative, these results are suggestive of the types of abstractions likely to emerge from the processes advanced by Bettman and Sujan (1987) and Johnson (1984). From the standpoint of the design of new products, the present results suggest factors critical to understanding consumer evaluations of brand extensions. Consideration of physical attribute similarities and economic efficiencies alone may well be insufficient to predict consumer response. More importantly, the present study begins to examine the informational determinants of category comparisons. While this task is clearly different from choice or evaluation tasks, to the extent that comparison processes are integral to consumer evaluation of brand extensions, the present results begin to develop a basis for predicting the likely consumer response to such new products.

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Thoughts on the Importance of Psycholinguistics to the Understanding of Effective Advertising Communication

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There can be no doubt about the importance of words and how one uses them to the effectiveness of any communication. And while there is certainly no shortage of words in advertising, there is certainly a shortage of research on the impact of semantic content and syntax upon communication effectiveness in advertising. The efforts reported by the researchers in this session are most welcome.

INFERENCE

Weiner and Mehrabian (1968) have done a good job of discussing the often subtle effects of language, and especially that what appears to be the same thing said with different words can be the basis for inferring quite different responses from the communication. Rickheit, Schnotz, and Strohner (1985) have offered the following definition of inference in discourse comprehension: "An inference is the generation of new semantic information from old semantic information in a given context." They go on to point out three areas that must be dealt with in considering the effect of inference:

- (1) the psychological representation of old information and the new information resulting from the inference
- (2) the process of inferring the new information from the old information, and
- (3) the notion of content and its effect upon inferring

A number of concerns are evident for each of these points, and while a thorough discussion of these issues is certainly beyond the scope of these comments, it will perhaps pay us to at least take a brief look at some of the problems outlined by Rickheit et al. The idea of mental representation and inference is tied up in theories of just how people structure internally the meaning of text, what the units of this structure are, and how these units are combined to make a meaningful whole. Secondly, text processing is only a partially automatic process, and unfortunately problem solving processes such as inference, in most cases, do not reach a conscious level. Finally, they point out that although there is no doubt context is essential for making inference, the concept of context is generally left undefined in most current studies of language use. It would certainly seem that we have our work cut out for us.

In trying to determine the circumstances or variables that might lead people to draw misleading inferences from otherwise truthful claims one must necessarily address each of these points. Looking at such things as prior knowledge and expertise and their effect upon processing advertising messages and any subsequent inferences drawn from them cannot be simply addressed, but such pre-existing cognitive structure will surely be instrumental in the manner in which inferences are formed relative to the

information processed. Kehret-Ward has begun to deal with this question in her work.

SYNTAX

Syntax, of course, is the term given over to the composition or grammatical arrangement of words. Psycholinguists study syntax and deconstruct rules or hypotheses of just how all of these arrangements influence the way we learn and understand a language. But understanding syntax is anything but easy. As Akmajian and Henry (1975) remind us, linguistic activity is so much a part of being human that we are not at all conscious of it. People simply use language with no conscious awareness of the complex interactions stimulated by the ways in which they string words together. And while it would be fair to say that on the whole we tend to understand one another, there can nevertheless be unwanted communication consequences of language, simply as a function of the way in which a sentence is composed.

Lowrey (1991) quite rightly laments the paucity of research in the area of syntax and advertising. Percy (1982) and Percy and Rossiter (1980) summarize a great deal of psychology and psycholinguistic literature that bears upon syntactic issues; and, in fact, report several studies that attempt to deal with the issue (c.f. Percy, 1988; Percy and Rossiter, 1983). For example, in one of the studies reported by Percy and Rossiter (1983), subjects were asked to imagine a new calorie-controlled food that is advertised as:

Condition 1: "It's food *that* tastes good in your mouth and looks good on you"

Condition 2: "It's food *which* tastes good in your mouth and looks good on you"

Condition 3: "It's good tasting food *that* looks good on you"

Condition 4: "It's good tasting food *which* looks good on you"

The purpose here was to explore the use of a relative vs. demonstrative pronoun. The results tended to support the contention of Hakes and Cairns (1970) and Hakes and Foss (1970) that relative pronouns facilitate comprehension of self-embedded sentences (here both right branching). A measure of affect summed from four bi-polar scales (good-bad, inferior-superior, unpleasant-pleasant, and interesting-boring) and an intention-to-try measure (using a zero-to-ten scale) were used, with the following result:

Pronoun	Mean Summated Product Affect	Mean Intention
That	3.30	7.11
Which	4.52	8.34

As these results suggest, overall affect and intention do seem to be greater with the use of a relative pronoun (although results were not necessarily significant).

In some additional work dealing with syntax, Percy (1988) found that learning, recall, and comprehension of an advertising slogan all varied, and often significantly, as a function of the slogan's syntax. In one of the studies reported, subjects were asked whether taste or calories was most important to the product described in one of four ways (manipulating placement of negative subordinate clauses within self-embedded sentences). The correct inference in each case was intended to be "taste", and as the results below indicate, most people did indeed infer taste.

Sentence	Incorrect Calorie Inference	Correct Taste Inference
1. It's not just the calories that count, it's the taste	11	89
2. It's the taste that counts, not just the calories	23	77
3. It's the taste, not just the calories, that count	13	87
4. It's not just the calories, it's the taste that counts	15	85

However, those subjects exposed to slogan 2, "It's the taste that counts, not just the calories," were significantly more likely to make an incorrect inference. Slogan 2 happens to embed the negative clause in a right-branching fashion, and there is evidence that suggests right-branching clauses, whether negative or not, are more difficult to process if the right-branching clause is subordinate.

We were reminded of these two studies in reviewing the work of Saliba (1991) and Lowrey (1991), as well as Kehret-Ward's (1991) work on inference. Each of these studies attempts to deal with some aspect of this intriguing yet complex issue of psycholinguistics and its obvious application to advertising. One also senses in their work the frustration of being able to significantly isolate effects; a frustration keenly felt in our own work. None-the-less, work in this area has the potential for meaningful contributions to better understanding advertising message comprehension. An advertisement is a complex communication vehicle, full of verbal and visual interactions. Yet, small efficiencies can lead to better communication; and research into the psycholinguistics of advertising copy will aid in uncovering just such efficiencies.

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The Relation Between Syntactic Complexity and Advertising Persuasiveness

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ABSTRACT

Verbal aspects of advertising have long been of obvious interest and importance in marketing research. However, a psycholinguistic approach has rarely been used to study verbal representations. Two important aspects of psycholinguistic theory are useful in the study of advertising effects: semantics and syntax. At the simplest level, semantics involves the study of meaning while syntax involves the study of sentence structure.

Most of the past advertising research using psycholinguistic theory has focused on semantic components of advertising messages, such as word meanings and inference-making. There has been very little empirical work on the effect of syntactic structure on the persuasiveness of advertising.

A pilot study was conducted to investigate these issues. Using the Elaboration Likelihood Model as a framework, advertisements were created that differed in level of syntactic complexity and argument strength. It was hypothesized that attitudes toward the product advertised would differ most greatly for simple versions depending on argument strength, due to elaborative thinking (i.e., bolstering for strong versions and counter-arguing for weak versions). It was also hypothesized that attitudes toward the product advertised would not differ as greatly for complex versions across levels of argument strength. Results upheld these predictions.

INTRODUCTION

Verbal aspects of advertising, although important in marketing research, have rarely been studied utilizing a psycholinguistic approach. Most of the past advertising research using psycholinguistic theory has focused on semantic components of advertising messages, such as word meanings and inference-making. For example, concrete words have been found to be better than abstract words in producing visual imagery (Rossiter & Percy, 1980). In addition, copy that invites readers to make inferences has been found to be particularly misleading (Harris, 1977; Harris, Dubitsky & Bruno, 1983).

Psycholinguistic research which focuses on syntax has shown that complex sentence structures are less easily comprehended than simple sentence structures. In addition, complex sentences are less likely to be recalled than simple sentences. Specific structures that have been shown to reduce the comprehensibility of text include passive construction, negation, and left-branching sentences.

For example, fewer errors are made when recalling affirmative and active sentences than when recalling negative and passive sentences (Mehler, 1963; Miller, 1962). Similarly, when subjects are asked to verify the truth or falsity of a sentence that describes a pictorial stimulus, response latencies are faster for affirmative and active sentences than for

negative and passive sentences (Clark & Chase, 1972; Gough, 1965, 1966; Just & Carpenter, 1971; Slobin, 1966; Trabasso, Rollins, & Shaughnessy, 1971; Wason, 1959, 1965).

Left-branching structures can cause processing difficulties by overloading working memory, particularly in children and older adults. Even for adults with normal capacity, however, such structures can impede comprehension when combined with other factors that place demands on short-term memory (for a thorough discussion of these issues, see Anderson & Davison, 1988).

Syntactic aspects of advertising have been addressed in studies of the miscomprehension of corrective advertising (Jacoby, Nelson & Hoyer, 1982) and in suggested copywriting guidelines (Percy, 1982; Rogers, 1988). Research in corrective advertising has replicated previous findings (Gough, 1965, 1966; Miller, 1962; Slobin, 1966) that affirmations are better comprehended than negations.

The copywriting guidelines which have been outlined look to general psycholinguistic theories of syntax effects for their framework, but to date little empirical evidence exists to support such guidelines in the context of advertising. These guidelines advise copywriters to write short headlines, and to avoid negations (e.g., "7-Up does not contain caffeine") and passive constructions (e.g., "Advil is recommended by more doctors"). However, the relation between syntactic complexity and persuasion has not been investigated. Indeed, the nature of the relation between syntactic complexity and comprehension is unclear. It would be particularly useful for researchers to show empirically that syntax has direct implications for predicting the persuasiveness of message content. A psycholinguistic approach could contribute a great deal to our understanding of how verbal aspects of advertising influence persuasion.

There are several ways in which complexity can be manipulated in the context of advertising. Affirmative statements vs. negations are one way of varying the level of complexity. For example, "Trident gum is sugarless" is syntactically less complex than "Trident gum does not contain sugar." Active vs. passive structures are another way of manipulating complexity. According to existing theory, "More people prefer the taste of Pepsi" is easier to process than "The taste of Pepsi is preferred by more people." Left-branching sentence structures can also contribute to complexity. For example, "Because you care about your health, you should try Healthy Choice entrees" requires more memory capacity than "You should try Healthy Choice entrees because you care about your health."

Psycholinguistic research has shed light on comprehension processes utilizing methods that do not attempt to measure persuasion. Persuasion is not an essential outcome in most reading situations, which are the situations of primary interest to

psycholinguists. However, persuasion is a very important outcome in the study of advertising. In this study, attitudes were measured, in addition to memory and comprehension, in an effort to investigate the interaction between syntax, comprehension, and persuasion in advertising.

There are two persuasion models that have implications for predicting the effect of syntactic complexity on persuasion. The first of these is the traditional information-processing approach to persuasion. Information-processing theory (IPT) considered message comprehension and retention to be important antecedents of persuasion (Hovland, Janis & Kelley, 1953; McGuire, 1966; 1969). It was hypothesized that enduring attitude change could not occur without comprehension and retention of the persuasive message. In fact, IPT would predict that as the complexity of a message increases, comprehensibility is reduced, leading to reduced persuasiveness as well. The second model that has implications for predicting the effect of syntactic complexity on persuasion is the Elaboration Likelihood Model (ELM - Petty & Cacioppo, 1986). The ELM takes into account several variables that affect both the *ability* and *motivation* to process incoming information.

Ability factors include, but are not limited to, distraction, message repetition, and message complexity-comprehensibility. For example, if one is distracted from attending to the message, it becomes difficult to process the information. This is also true if one cannot *comprehend* the message.

The ELM also considers motivation to process to be a key factor in the persuasion process. Factors that affect level of motivation include, but are not limited to, personal relevance, responsibility and message sources. For example, the more personally relevant a particular advertisement is (e.g., relevant to future decisions one anticipates making), the more one may be motivated to pay attention to it and elaborate on it. Both ability to process and motivation to process are important determinants of the amount of elaboration that is likely to occur when exposed to a message.

The ELM would predict that as the complexity of a message increases, comprehensibility is reduced. However, the predictions of each theory about the effects of complexity on persuasion would differ as a function of message strength. As stated previously, IPT would predict that as a message becomes less comprehensible it should become less persuasive, regardless of the message content. The ELM's predictions would be identical to those of IPT *only* for strong messages (e.g., messages with compelling arguments). That is, if ability to process a strong message is impaired, persuasiveness should be reduced due to the reduction in support arguments that would normally be elicited. However, if the message is weak (e.g., contains arguments which are not compelling), the ELM would predict the opposite effect. As ability to process a weak message is impaired, persuasiveness should be enhanced due to the reduction in counterarguments that would normally be elicited.

Although the ELM and IPT differ with respect to their predictions of the effects of message complexity on persuasiveness, both models agree that extreme levels of complexity should overload working memory which, in turn, should impair the ability to process the message, even if motivation to process is high. In the context of advertising, however, it is important to address the role that lesser degrees of complexity may have in the persuasion process. Advertising is designed to be comprehensible to the majority of adults with average language skills. Advertisements may be differentiated, then, in terms of the *amount of effort* required to reach comprehension, not in terms of absolute comprehensibility.

Because complexity requires greater processing effort, motivation to process the message should be a key determinant of the effect of complexity on persuasion. Under situations of moderate personal relevance (moderate involvement), complex syntax may serve to decrease one's motivation to process a message even if the ability to process exists. If one is not highly involved when a complex message is encountered, one might not bother to read the message. If so, syntactic complexity may have a direct effect on the persuasiveness of the message. According to ELM, if message arguments are strong, complexity should serve to decrease message persuasiveness. If message arguments are weak, complexity should serve to increase message persuasiveness.

The pilot study reported herein was designed specifically to address this issue with special attention paid to the levels of complexity and exposure conditions frequently encountered in advertising contexts, as a simple demonstration of the main effect of syntactic complexity on advertising persuasiveness, holding motivation to process constant.

METHOD

IPT and ELM offer two conflicting sets of predictions regarding the relation between message comprehension and persuasiveness. The main purpose of this study was to demonstrate the relevance of the ELM in predicting the effect of syntactic complexity on the persuasiveness of advertising messages. This study focused on the effects of low and moderate levels of complexity on advertising persuasiveness under situations of moderate personal relevance (moderate involvement). Four advertisements for a product (a breakfast cereal) were created that differed in their syntactic complexity and their argument quality (a 2 X 2 factorial design), as follows:

- 1) Simple syntax - strong advertising claims
- 2) Simple syntax - weak advertising claims
- 3) Complex syntax - strong advertising claims
- 4) Complex syntax - weak advertising claims

HYPOTHESES

IPT would predict that, regardless of message strength, simple messages would be more persuasive than complex messages. The ELM would predict that,

in a moderate involvement situation, subjects should be more likely to engage in elaborative processing when processing simple vs. complex versions. Thus, syntactic complexity may serve to increase persuasion by reducing the number of counterarguments normally elicited by a weak message and to decrease persuasion by reducing the number of support arguments normally elicited by a strong message. This study was designed to assist in determining which model is likely to predict effects at moderate levels of complexity.

For all subjects, it was hypothesized that simple versions would produce greater levels of recall and recognition of advertising content than would complex versions, as consistent with predictions of both IPT and ELM. More importantly, it was hypothesized that the effect of syntactic complexity on *persuasion* would depend on message strength. For simple (easy to process) ads, product evaluations should be less favorable for weak argument versions than for strong argument versions. For complex (hard to process) ads, product evaluations should not differ as greatly across levels of argument strength.

SAMPLE

57 students from the introductory advertising class at the University of Illinois participated in this study. The data from one foreign subject and three subjects who failed to follow instructions were eliminated.

PROCEDURE

All subjects received a booklet containing several advertisements. The target ad was embedded within this booklet. In an effort to hold involvement constant at a moderate level, the product chosen for the target ad (a breakfast cereal) is one that is not generally considered a high involvement product.

The strong and weak versions of the ad were created by pre-testing strong and weak arguments for the product chosen. Examples of strong arguments include that it tastes good, is low-fat, and has crispy flakes. Examples of weak arguments include that it has light-weight packaging, comes in a small box that is easy to store, and is available at many stores.

The syntactically simple versions of the claims were written in the affirmative, active voice with right-branching structure. Complex versions were created by transforming the simple versions into negations and left-branching, passive structures. In addition, pre-tests using the Cloze procedure (Taylor, 1953) were conducted to ensure that the versions were differentiated in terms of comprehensibility. The Cloze procedure involves replacing every *n*th (e.g., fifth, tenth, etc.) word from a passage of text with a blank. Pre-test subjects are asked to fill in the blanks. Readability scores are then computed by summing the number of correctly replaced words within the passage of text.

After reading through the advertisement booklet, subjects received the measurement booklet. Attitude toward the target product was assessed first, followed by a measurement of purchase intention. These measures were followed by a free recall task of the target ad content, wherein subjects were asked to

list any information about the target product they could remember. Subjects were then presented with a standard thought-listing measure in order to assess cognitive responses toward the target product (Cacioppo & Petty, 1981). This was followed by an aided recognition task where subjects were asked specific questions about the target product (based on statements that appeared in the ad). Finally, subjects responded to manipulation check items, including rating the comprehensibility of the target ad (Wang, 1970).

RESULTS

Only the results from the recall task and attitude measure are reported here. The average numbers of claims recalled by subjects are shown in Table 1. Although the pattern reflects the predictions, the main effect of syntactic complexity was only marginally significant ($F(1, 51)=3.344$; $p<.08$).

Subjects responded to a 9-point scale to assess their attitude toward the breakfast cereal (1=very negative; 9=very positive). Mean attitude scores along this 9-point scale are shown in Table 2. The pattern of means reflected the predictions, and the argument strength X syntactic complexity interaction was statistically significant ($F(1, 51)=4.633$; $p<.04$). Specifically, subjects who read the easy, yet weak version of the advertisement had more negative attitudes than did the subjects who read the easy and strong version. The attitudes of subjects who read the hard version of the advertisement did not differ as greatly across levels of argument strength.

DISCUSSION

This pilot study demonstrated that syntactic complexity can serve either to increase or decrease persuasion, independently of its effects on comprehension. Thus, this study showed that syntactic complexity can have direct implications for the persuasiveness of advertising messages.

Specifically, it was hypothesized that easy versions of ads would produce greater levels of recall than hard versions, regardless of argument strength. This pattern held true.

More importantly, it was hypothesized that, for easy ads, product attitudes would be less favorable for weak argument versions than for strong argument versions. For hard ads, product attitudes were not expected to differ as greatly across levels of argument strength. The argument strength X syntactic complexity interaction was statistically significant, thus upholding these predictions as well.

In addition to the results reported here, analyses of other measures included in this study have yet to be conducted, including purchase intention, aided recognition, and cognitive responses. It is hoped that these additional analyses will yield similar results.

Future research should also address alternative explanations of these results. One interpretation of such results is that the motivation to process the ad is reduced when extra effort is required. However, this study did not determine whether syntactic complexity is reducing motivation to process the message or

TABLE 1
Average Number of Claims Recalled by Level of Syntactic Complexity

<u>Easy</u>	<u>Hard</u>
3.48 (27)	3.19 (26)

Note: The main effect of syntactic complexity was marginally significant ($F(1,51)=3.344, p<.08$).

TABLE 2
Mean Attitude Scores by Argument Strength and Syntactic Complexity

	<u>Easy</u>	<u>Hard</u>
<u>Strong</u>	4.86 (14)	4.54 (13)
<u>Weak</u>	3.08 (12)	4.64 (14)

NOTE: Subjects responded to a 9-pt. attitude scale (1=very negative; 9=very positive) with a mid-point of 5 (neither negative nor positive).

NOTE: The interaction between argument strength and syntactic complexity was statistically significant ($F(1,51)=4.633, p<.04$).

impairing ability to process the message. The same results might be obtained if subjects weren't able to process the complex version. It could be true that the complex syntax overloads processing space. A study designed to investigate this issue is planned.

This study, in conjunction with proposed future studies, lays a groundwork for exploring the diverse ways in which syntactic complexity may increase or decrease the persuasiveness of advertising. Research in these areas should contribute to our understanding of how message complexity impacts the persuasion process in the context of advertising.

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Using Syntax to Direct Processing Resources

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ABSTRACT

The purpose of this study is to examine how syntax can direct the processing of messages to discover whether individuals can utilize this process information in making decisions. A promising approach to these issues is offered by the "given-new" theory espoused in psycho-linguistics. This theory suggests that language syntax directs the processing of information. Certain sentence structures can direct attention to what is new information for the hearer and imply, by their syntax, that critical attention need not be paid to old information. As such, the hearer's attention can be automatically directed to processing message meaning.

To examine these ideas, four experiments were conducted. Attention was limited by having subjects read an externally-paced message. By using a pseudo-cleft sentence in experiments one and two, attention was directed to specific parts of the message. Subjects gave evaluative responses based on the advertised product. These evaluations were made when rehearsal was suppressed or after it was motivated.

It was observed that when limited attention was directed and rehearsal suppressed, subjects evaluated favorably. However, when rehearsal was motivated, evaluation was less favorable.

In experiments three and four the limiting and directing effects were replicated. These experiments also explored unmarked information. The outcomes showed that in the unmarked condition evaluation was more favorable under motivated thought rehearsal but the results were not always significant.

The experiments showed that people can process meaning automatically. This information can be recalled and utilized when thought rehearsal is motivated. That ability to recall automatically-processed information can be hindered or enhanced by marking message information.

Comment on Factors Affecting Evaluations

Richard F. Yalch, University of Washington

The conference co-chairs helped my integration task by recognizing a common element, a concern with influences on consumer judgments, in grouping three apparently unrelated studies. Another major element is that the papers assess the influence of new information presented to consumers relative to information consumers previously stored about a particular brand or product. Thus, apparently disparate factors such as context, brand familiarity, self-referencing, and explicit recognition of missing product information similarly affect consumer judgments by altering the importance of message information relative to previously stored information. After reviewing the major findings and some methodological issues, I will present an information processing model elaborating on this perspective.

MAJOR FINDINGS OF PAPERS

The three sets of authors are to be congratulated for identifying important limitations in the literature and designing studies to address overlooked issues. Two papers question whether previously reported levels of association between variables are artificially inflated. Machleit and Sahni (1992) insightfully identify that research relating attitude toward the ad and attitude toward the brand used a context in which the two concepts were measured in close proximity and therefore should tend to appear related. Further, they observed that many studies using familiar brands reported low and insignificant correlations and offered brand familiarity as another important moderator of the attitude toward the ad and attitude toward the brand relationship. Their study verified the moderating roles of context and brand familiarity.

Sirdeshmukh and Unnava (1992) review past research showing that missing information causes consumers to report more negative attitudes toward a product, but express concern that these findings may inflate the importance of missing information because respondents were made aware explicitly that important product information was missing. They hypothesize that without such awareness consumers would be less affected by the missing information. Again, their study validates their suspicions.

Romeo and Debevec (1992) also raise a methodological issue in concluding that past research on the self-reference effect considers self-referencing to be a cognitive process and did not measure affective reactions. Their study includes affective measures and validates that they are affected by self-referencing.

SOME METHODOLOGICAL CONCERNS

Before developing a model synthesizing these results, brief comments are provided on the methods employed by the authors. Although the studies are well-carried out, a few suggestions are offered to aid future research.

Machleit & Sahni (1992) used television ads for two familiar brands (Coke and Michelob) and

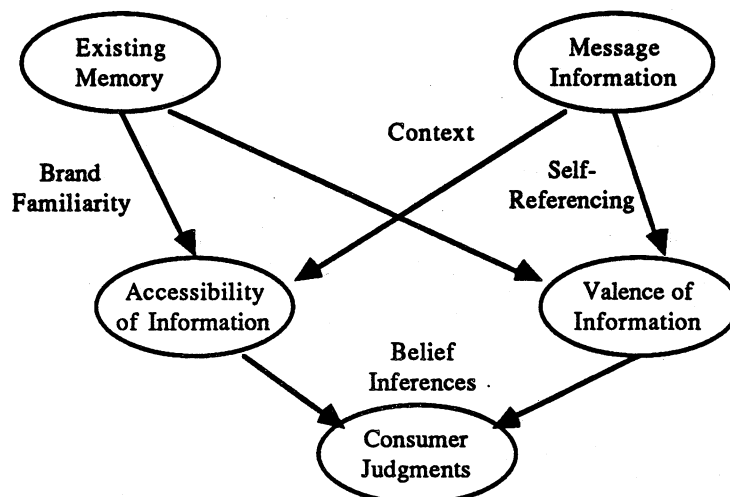
unfamiliar brand (Mug and Kronenbourg). In reading the descriptions, I noticed that the familiar brands used musical themes whereas the unfamiliar brands used humor. Thus, there is a confound between familiarity and advertising approach. I do not know that the literature speaks clearly why correlations should be higher between attitudes toward humorous ads and brand attitudes than for attitudes toward musical ads and brand attitudes. However, humor may be more affect stimulating and memorable than music, providing a rival explanation for the results.

Sirdeshmukh and Unnava's (1992) asked subjects to evaluate hypothetical product given only the information available. Not surprisingly, they did so. Only in the explicit condition (i.e., when clearly more information could have been provided), and only when provided with less than half the information (four out of ten characteristics), did the subjects evaluate the product significantly less favorably than in the full information conditions. Interestingly, this occurred although subjects perceived that the information was not sufficient in most conditions (four attributes - implicit presentation, four, six and eight attributes in the explicit condition). Thus, rather than conclude that consumers react unfavorably when important product information is missing, one could conclude that they are surprisingly indifferent to missing information.

Some questions arose regarding Romeo and Debevec's (1992) analysis rather than their design. In the design, the level of self-referencing was varied by having subjects read copy with pronouns focusing their attention on themselves, another person or the product. However, in the analysis, the authors used the reported level of self-referencing not the assigned level. This amounts to self-assignment to treatments and may undermine internal validity. For example, it risks confounding self-referencing with other factors such as agreeableness or involvement. That is, highly involved or cooperative individuals might be expected to report high self-referencing, positive attitudes toward the ad and favorable product evaluations.

Another concern is the construct validity of the affective and cognitive scales for measuring attitude toward the ad. For example, Romeo and Debevec (1992) use exciting and interesting as cognitive evaluations. However, they relate their results to Edell & Burke (1987) who used excited and interested as measures of upbeat feelings. In addition, Romeo and Debevec (1992) claim that relevant, interesting, exciting and entertaining measure the content whereas believable, realistic and informative measure the of the ad. To me, interesting seems more a quality measure and informative more a measure of content. It would be desirable to validate the scale labels.

FIGURE
Factors Affecting the Influence of Existing Memory and Message Information on Consumer Judgments



A MODEL OF THE JUDGMENT PROCESS

Methodological concerns aside, what do these studies have in common? All three support a model of memory that maintains that consumers base their judgments on the information available to them and that the amount used in making judgments is typically much less than their total product knowledge. Available information includes their experiences, exposures to advertising and other marketing stimuli, as well as the information presented to them in the laboratory. As shown in the figure, consumer judgments are based on two sources of information. One is information retrieved from long-term memory and the other is information recently acquired from an advertisement (e.g., Machleit And Sahni 1992; Romeo and Debevec 1992) or product description (e.g., Sirdeshmukh and Unnava 1992). The extent to which one or the other influences judgments depends on its likelihood of retrieval. Retrieval, in turn, depends on factors such as recency (usually the shorter the time between exposure and judgment the more likely information will be used in the judgment task) and elaboration (the more associations to a specific bit of information the more likely it will be used in the judgment task). Note that thoughts can be favorable, unfavorable or neutral and either cognitive or affective (emotional). Let's apply this model to the three studies.

For Machleit And Sahni (1992), it should be obvious that consumer thoughts should be more elaborate for familiar brands like Coke and Michelob than for unfamiliar brands like Mug and Kronenbourg. For familiar brands, consumers can easily retrieve prior thoughts and attitudes and use them when making product judgments. This is especially likely when filler questions are used to reduce the accessibility of attitudes toward the ad (their context effect). However,

having consumers respond to attitude toward the advertisement questions immediately before making product evaluations might make these thoughts sufficiently salient that they will influence the product judgments resulting in significant correlations. This was true for Michelob but not for Coke. This might be explained by Coke's being such a familiar brand that prior thoughts are extremely accessible and thus not easily ignored. It also might be attributed to the fact that the particular ad used did not present any new information (emotional or cognitive) about Coke.

For unfamiliar brands, attitudes toward a recently viewed ad will tend to dominate prior thoughts. This results in relatively high correlations between attitude toward the ad and attitudes toward the brand. The dominance of advertising-related thoughts will be maintained even when product judgments are separated from advertising judgments by filler questions. However, one should expect some attenuation as Machleit and Sahni (1992) found (see their Table 1). This raises the important question of how much predictive power attitudes toward the ad will have when measures are greatly separated. For example, do attitudes toward the ad in a copy test predict purchase behavior?

For Romeo And Debevec (1992), self-referencing serves as the device for altering the accessibility and valence of message information. The authors believe that having subjects elaborate on message information by relating it to their personal experiences enhances message learning and makes message information more accessible when product judgments are rendered. In addition, Romeo And Debevec (1992) offer the idea that there may be an emotional component to self-referencing such that self thoughts tend to be positive (we think well of ourselves) and this will further encourage favorable evaluations of the advertised product. The results of

their study support these conjectures. However, these results may not always be obtained. For example, research by Brian Sternthal and me (in review) shows that self-referencing has less effect on learning advertising messages than isolated nouns and adjectives. Advertising is connected discourse and hence stimulates a moderate level of elaboration. Further, self-referencing requires that consumers be able to relate the advertised product to themselves. If consumers cannot easily see themselves as users, self-referencing may undermine learning. This occurred in one of Lord's (1980) condition in which individuals found it easier to visualize others using an object than themselves.

Even if it enhances message learning, self-referencing might not produce favorable affective reactions. In Yalch and Sternthal (in review), when individuals had access to personal experiences indicating that a product was not of high quality, individuals using high self-referencing were less favorable toward the products than individuals using only a moderate amount of self-referencing.

In Sirdeshmukh and Unnava (1992), the issue is whether consumers resort to inferences when a message does not provide enough information to make a valid judgment. The researchers' messages consisted of product ratings on a series of characteristics. Subjects received information on four, six, eight or ten characteristics and were either made aware that the product could be evaluated on ten characteristics (explicit condition) or not made aware of this (implicit condition). In the implicit condition, attitudes did not vary with the amount of information provided, whereas attitudes became more favorable when more information was provided in the explicit condition. However, the major difference between implicit and explicit conditions occurred only when four characteristics were described. In this case, subjects provided substantially more negative product evaluations. It is not clear why this occurred except that subjects may have become suspicious why less than half the possible information was available. Their negative evaluations may have been based less on inferences drawn from the information provided and more on attributions regarding the manufacturer's integrity.

Note, that once evaluative information for six characteristics were provided or when subjects were not informed that important information was withheld, their product evaluations tended to be similar. This occurred although subjects acknowledged that the information was not sufficient (e.g., sufficiency rating was less than three on a seven-point scale when information was provided for six attributes in the explicit condition - see Table in Sirdeshmukh and Unnava 1992).

Why are evaluations largely unaffected by missing information? An explanation is that judgments tend to be based only on a limited amount of information even when much information is provided. That is, when making judgments, individuals rarely access and process all pertinent information as they might in a recall task. Instead, they bring a limited amount into short-term memory

(four to five bits) and they reach a judgment. It is possible that Sirdeshmukh and Unnava (1992) are observing the effect of consumer suspicions about why the additional information is not provided. This might include concerns about the quality of the testing agency or the manufacturer's reluctance to cooperate with the testing agency. It would be an interesting follow-up to redo the study and offer different explanations for the missing information. Attitudes should vary depending on whether it was preventable and who is the cause.

In conclusion, the three studies provide confirmation for an integrative view of memory and judgments. They show that the relative effect of product information acquired externally versus information retrieved from long term memory is predictable by the relative accessibility of each. Having individuals rehearse message information by asking them to evaluate the message immediately before making product judgments, by instructing them to self-reference it, or by listing it on the same sheet of paper as the product evaluations enhances the influence of the message information. On the other hand, including a time delay between advertising evaluations and product evaluations, using familiar products, not having individuals self-reference the material, or providing more or less information than needed will minimize the influence of message information.

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The Impact of Measurement Context on the Relationship Between Attitude Toward the Ad and Brand Attitude for Familiar Brands

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ABSTRACT

This study investigates the possibility that measurement context (the material which precedes a question on a questionnaire) can affect the observed relationships between Aad and brand attitude. The data illustrate that for familiar brands in particular, the magnitude of the Aad/brand attitude relationship can be affected by measurement context. This study demonstrates the need for careful questionnaire construction to reduce concerns regarding the internal validity of experiments measuring both Aad and brand attitude.

INTRODUCTION

The primary focus of the literature addressing attitude toward the ad (Aad) has been on determining the effects of Aad on brand attitude (Ab); the empirical evidence strongly supports a positive relationship between the constructs (e.g., Batra and Ray 1985; Gardner 1985; MacKenzie, Lutz and Belch 1986; Mitchell and Olson 1981). Recently, there has been some interest in studying the moderating impact of brand familiarity on this relationship. The findings regarding this issue, however, have been somewhat inconsistent. For example, Gresham and Shimp (1985) found a significant effect of Aad on Ab for only six of fifteen familiar brands. Edell and Burke (1986) report that for highly familiar brands, the effect of prior Ab on Ab was greater than the effect of Aad on Ab. In addition, the effect of Aad on Ab was weaker for the highly familiar brands than for brands with low familiarity. Phelps and Thorson (1991) report a similar finding; that the effect of Aad on Ab was stronger for unfamiliar brands than for familiar brands when prior brand attitude was controlled. Yet, Machleit and Wilson (1988) found no relationship between Aad and Ab for two familiar brands after controlling for prior Ab. Similarly, Machleit, Madden, and Allen (1990) report nonsignificant effects of Aad and positive affect on brand attitude for two familiar brands. This study is designed to address the inconsistent Aad/Ab findings for familiar brands by investigating the degree to which measurement procedures might impact the relationship. It has been demonstrated that item context (the material which precedes an item in the questionnaire) can have an impact on the responses subjects provide to that item (cf. Bradburn 1982; Schuman and Presser 1981; Tourangeau and Rasinski 1988). More specifically, correlations between constructs can be increased when they are measured contiguously (Feldman and Lynch 1988). Indeed, this is a problem which researchers have recognized in the Aad context (e.g., Edell and Burke 1986; Mitchell 1986). Edell and Burke (1984) caution that "(a)t a minimum, the Aad and Ab measures should be separated in space and time" (p. 648) to insure that method variance can be eliminated as a possible explanation for the Aad/Ab relationship.

Unfortunately, by reviewing the method section of many Aad studies, one can find that such precautions are rarely undertaken. Thus, the purpose of this study is to demonstrate that context effects in measurement can increase the Aad/Ab association for familiar brands and may offer a potential explanation for the inconsistent findings regarding Aad's impact on Ab. We begin with a brief review of the relevant literature before proceeding with the hypotheses.

BACKGROUND

Moderating Effects of Brand Familiarity

The literature offers many studies demonstrating Aad's impact on brand attitude for unfamiliar and fictitious/hypothetical brands. The theoretical justification typically offered for this relationship involves a classical conditioning and/or direct affect transfer explanation (e.g., Gardner 1985; Gresham and Shimp 1985, Machleit and Wilson 1988; MacKenzie, Lutz, and Belch 1986; Mitchell and Olson 1981). However, this theory does not support predictions of an Aad/Ab effect for familiar brands.

McSweeney and Bierley (1984) review classical conditioning procedures and their implications for consumer behavior. They note that "it will be easier to classically condition behaviors to new products (CSs) than to products with which people have had previous experience" (p. 624). Their conclusion is based on a conditioning principle called "latent inhibition" which contends that little conditioning will occur when the CS (in this case, the brand) is presented several times without the US (in this case, the ad and resulting affective responses). Thus, when consumers already have some sort of knowledge and/or experience with a familiar brand and they are subsequently exposed to an ad for that brand, little conditioning/affect transfer should occur. This principle has been demonstrated empirically by Shimp, Stuart, and Engle (1991) who, in a series of experiments, found that for highly familiar brands of cola, little conditioning effects were observed in brand attitude. Indeed, this finding is not surprising given that attitudes for familiar, experienced individuals are difficult to change (Fazio and Zanna 1981; Wu and Shaffer 1987). One would expect that it would take more than just one or two exposures to affect-producing ads to change such a well-formed attitude.

The Impact of Context Effects

The process of measurement and the context of questioning have been demonstrated to impact the correlations among constructs by shaping the computational and retrieval processes that individuals use to generate answers to survey questions. Feldman and Lynch (1988) present an "Accessibility-Diagnosticity" model that can contribute to our understanding of the effects of measurement context.

According to their model, the likelihood that a person's response to a question will be used as a basis for a response to a second question depends upon the accessibility of the first input in memory, the accessibility of alternative inputs in memory, and the perceived diagnosticity or relevance of the input and alternative inputs (Lynch, Marmorstein, Weigold 1988).

It is not uncommon for respondents in a data collection situation to have a relatively low interest in the survey task, as well as to feel some time pressure to complete the questionnaire. As a result, the response process performed by the individual is likely to be carried out superficially, and respondents will often base their opinions on easily accessed situational cues from the immediate context rather than retrieving the appropriate information from memory (Tourangeau and Rasinski 1988). Even without time pressure or low involvement of the part of the respondent, the measurement process may direct the respondent's attention to subsets of their prior knowledge structure. Through output interference, "cognitions activated in the process of making the first judgment may suppress the retrieval of cognitions that would have influenced the second judgment or behavior in the absence of prior measurement" (Feldman and Lynch 1988, p. 422). Further, multiple measures of a construct (necessary for increased measurement reliability) will magnify this problem since they provide increased rehearsal and thus increased memory accessibility (Feldman and Lynch 1988). Tourangeau and Rasinski (1988) note that the retrieval process will reflect what is most accessible to the respondent rather than what is most important. This problem "is likely to be heightened in attitude measurement settings, in which few respondents have either the motive or the opportunity to reflect carefully on their answers. . . what is most readily retrieved from memory does not necessarily reflect either reality or the contents of memory" (p. 301).

HYPOTHESES

Expanding on the "accessibility" portion of their model, Feldman and Lynch (1988) note that separating two mildly similar responses (e.g., responses about Aad and brand attitude) on a questionnaire can reduce the likelihood that the respondent will retrieve the first response as direct input to the second. When making a judgment, subjects begin by searching working memory; the search concludes when a sufficient basis for making the judgment is retrieved. By including "filler" or intervening items between the two measures, it is less likely that the response to the first question will still be in working memory when the second question is encountered. The respondent must then rely on long-term memory (Feldman and Lynch 1988).

However, for the unfamiliar brand, the *only* information that the respondent has about the brand comes from the ad to which s/he was exposed. This is the only information which the respondent has available for use in forming a judgment or attitude about the brand. Thus, this limited information should

be relevant in forming brand attitude regardless of whether it was made salient and in working memory through contiguous measurement or whether the brand attitude was taken after some "filler" questions. Given this limited information, we anticipate that measurement context effects induced by measuring Aad and Ab contiguously in a questionnaire will have minimal effects for the unfamiliar brand. Thus, we hypothesize:

Hypothesis 1: For unfamiliar brands, Aad will significantly impact brand attitude regardless of measurement context.

For the familiar brand, respondents should already have an attitude in long-term memory that will serve as the basis for attitude questioning. However, Tourangeau and Rasinski (1988) report that "(e)ven when the underlying attitude structure is stable, the response process need not be very reliable" (p. 301). This unreliability in the retrieval process will be reflective of the ease in accessing information for generating a response. When Aad and Ab questions are presented contiguously, working memory provides convenient Aad cues for basing responses of brand attitude; when the questions are presented noncontiguously, subjects will be more likely to engage in the more involved and effortful search of long-term memory (Tourangeau and Rasinski 1988). As a result of processing ease, we hypothesize that, for familiar brands, measurement context effects will produce a significant correlation between Aad and Ab when the measurements are taken contiguously; however, with noncontiguous measures, we hypothesize that the Aad/Ab relationship will be, consistent with theory, nonsignificant.

Hypothesis 2: For familiar brands, Aad will significantly impact brand attitude only when the measures are taken contiguously.

METHODOLOGY

Experimental Design

A 2x2 between subjects design (familiar vs. unfamiliar brands x contiguous vs. noncontiguous measures) was conducted. Data were collected within this design for two different product categories relevant to student subjects (soft drinks and beer) to enable a replication of the findings. Product category was not a factor in the design since we simply wanted to insure and demonstrate that the results would be replicable in different product category conditions.

Stimuli

Four commercials were selected as the test stimuli. For soft drinks, ads for Coca-Cola Classic and Mug root beer were selected; for beer, the ads were for Michelob and Kronenbourg brands. The Coke commercial was a 1950s style song and dance production, the Michelob ad included singing artist Steve Winwood, the Mug ad was a humorous animated

sketch, and the Kronenbourg ad was a humorous discussion of the European brand. These ads were selected for their ability to generate some type of affective response from the subjects, and they fit nicely into the familiar (Coke and Michelob) and unfamiliar (Mug and Kronenbourg) factor necessary in the experimental design. Recognizing the limitations inherent in using "real" ads, we concluded that they would produce responses more natural than what would have been elicited through mock commercials (Mitchell 1986).

The test ads were embedded in a ten minute segment of a game show to mimic a more natural viewing environment. The first commercial break included three non-affective "filler" ads. During the second commercial break, subjects were exposed to either the two ads for the familiar brands, or the two ads for the unfamiliar brands. These test ads were then followed by a filler ad.

Subjects and Procedure

Student subjects were processed during undergraduate marketing courses. One of the two videotapes was shown to the students and they were told that they would be asked some questions when the tape concluded. Unknown to the students, questionnaires including either the contiguous or noncontiguous measures were randomly ordered and distributed. A total of 88 subjects participated: 29 in the familiar-contiguous condition, 21 in the familiar-noncontiguous condition, 20 in the unfamiliar-contiguous condition, and 18 in the unfamiliar-noncontiguous condition. A manipulation check indicated the success of the brand familiarity manipulation; on a 1-7 semantic differential scale, Coke and Michelob were rated as familiar (mean values of 6.7 and 5.3, respectively) and Mug and Kronenbourg were rated as unfamiliar (mean values of 1.8 and 2.1, respectively).

Questionnaire Design and Measures

The questionnaire began with the measures of positive affect and Aad validated by Madden, Allen, and Twible (1988). Positive affect was measured by asking subjects reflect how they felt during the ad and respond to five adjectives such as "cheerful" and "pleased" on a six point scale (with endpoints "very much so" to "not at all"). Aad was then measured with a seven-point semantic differential format. The scale items included: unpleasant/pleasant, likeable/unlikeable, interesting/boring, good/bad, tasteful/tasteless, artless/artful.

In the contiguous condition, the Aad measure was followed by the brand attitude measure. Brand attitude was measured with the items good/bad, unfavorable/favorable, and like/dislike with a seven-point semantic differential format. Three pages of "filler" questions then followed. In the noncontiguous condition, the "filler" questions followed the Aad measure, then the brand attitude measure was taken. The "filler" questions (asked with several different scale formats) included a variety of questions regarding the subjects' television viewing preferences and habits.

Coefficient alpha values were high for the positive affect, Aad, and brand attitude measures for each of the four brands. They ranged from .84 to .97 and demonstrate the reliability of the measures.

RESULTS AND DISCUSSION

Table 1 presents the correlations between Aad and brand attitude for the familiar and unfamiliar brands in both the contiguous and noncontiguous conditions. Hypothesis 1 predicted significant Aad/Ab correlations regardless of measurement context for the unfamiliar brands. This hypothesis is supported; the correlations for Mug and Kronenbourg are highly significant in both the contiguous and noncontiguous conditions.

These data were further examined to determine whether the correlations in the contiguous condition were significantly higher than those in the noncontiguous condition (Snedecor and Cochran 1980). For Mug, the correlations are not significantly different (.71 vs. .63). For Kronenbourg, however, the difference (.89 vs. .65) approaches significance ($p=.0524$). We argued earlier that Aad should affect Ab regardless of measurement context since these were affective ads and the ad provided the only basis from which to form a brand attitude. However, in the Kronenbourg ad, the brand was compared to Heineken beer. Thus, in the noncontiguous measure condition, the respondent may have accessed information regarding Heineken from long-term memory, using this information as input into brand attitude and thereby reducing the Aad effect.

Hypothesis 2 predicted significant Aad/Ab correlations for the familiar brands only when the measures are taken contiguously. The data for Michelob support this hypothesis. The high correlation ($r=.65$) in the contiguous condition does not occur in the noncontiguous condition ($r=.07$); these correlations are significantly different at $p < .05$.

It has been suggested that the significant effects of Aad on Ab for familiar brands could simply be spurious and due to the fact that prior brand attitude may act as a common antecedent to both Aad and Ab (Machleit and Wilson 1988). To determine that the effect for Michelob in the contiguous condition was likely due to measurement context rather than a lack of control for prior brand attitude, brand attitude was regressed on both Aad and prior brand attitude (this measure was included with questions for an unrelated experiment one week earlier). The results indicate that while prior brand attitude significantly impacts brand attitude ($\beta=.52$, $p<.0001$), the impact of Aad on brand attitude ($\beta=.62$, $p<.0001$) was not mediated by prior Ab. We therefore conclude that measuring Aad and brand attitude contiguously can inappropriately result in a significant correlation between the constructs.

For Coke, however, the results were not as anticipated. The Aad/Ab correlations were nonsignificant regardless of the measurement context (see Table 1). In an effort to post hoc explain this finding, we began by looking for differences between the two familiar brands, Coke and Michelob. Brand

TABLE 1
Aad/Ab Correlations

	Unfamiliar Brands		Familiar Brands	
	Mug	Kronenbourg	Coke	Michelob
Contiguous	.71 p=.000	.89 p=.000	.10 p=.308	.65 p=.000
Noncontiguous	.63 p=.002	.65 p=.002	.11 p=.323	.07 p=.382

TABLE 2
Positive Affect/Ab Correlations

	Unfamiliar Brands		Familiar Brands	
	Mug	Kronenbourg	Coke	Michelob
Contiguous	.52 p=.010	.42 p=.032	-.02 p=.453	.48 p=.004
Noncontiguous	.51 p=.015	.20 p=.214	.09 p=.340	.29 p=.100

familiarity was measured on a semantic differential scale (7=highly familiar) for both brands. ANOVA results indicate that the respondents were significantly less familiar ($p<.0001$) with Michelob than with Coke (mean values: Michelob=5.3, Coke=6.7). Tourangeau and Rasinski (1988) note that "with *highly familiar* issues, an attitude structure may be activated automatically when the issue is confronted" (p. 309, emphasis ours), and context effects may be eliminated. Further, issue expertise may reduce susceptibility to context effects (Fiske and Kinder 1981); such "experts" are likely to have thorough retrieval processes and, as a result, are less likely to be affected by measurement context. Given that the mean familiarity value for Coke was virtually at the extreme end of the scale, we conclude that this very high level of familiarity and expertise beyond that of Michelob is the reason that different effects were observed for the two familiar brands.

Since the Aad and Ab measures contained similar scale formats, we wished to consider whether method variance played a role in the study. Feldman and Lynch (1988) indicate that shared method variance, like context effects, can be minimized by increasing the amount of unrelated material separating the questions. However, we hoped to discount the method variance explanation in favor of the context effect explanation by evaluating whether context effects were also present for a different type of scale format. The positive affect measure was taken along

with the Aad measure although it was *not* measured with the similar semantic differential scale format. Table 2 presents the correlations between positive affect and brand attitude for the four brands by question context. Note that while these correlations as a whole are lower in magnitude (as we would anticipate since positive affect may precede Aad in a causal chain leading to brand attitude (e.g., Batra and Ray 1986; Edell and Burke 1987; Machleit and Wilson 1988)), the pattern of results is similar to the Aad results. In particular, for the moderately familiar brand Michelob, the correlation in the contiguous condition is highly significant while the correlation in the noncontiguous condition is not. Thus, the data in Table 2 also demonstrate the impact of measurement context.

CONCLUSION

This study underscores the importance of questionnaire design and contextual factors when researching associations among constructs. This issue should be an important concern for those who attempt to understand how affect-producing ads can impact brand attitude. In particular, we demonstrate that when researching familiar brands, measurement context has the potential to seriously inflate the magnitude of the relationship between Aad (or positive affect) and brand attitude. Researchers measuring the Aad/Ab relation for familiar brands should take care that these measures are separated by

filler questions to reduce concerns regarding the internal validity of their experiment.

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The Effects of Missing Information on Consumer Product Evaluations

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Previous research on the effects of missing information on consumer evaluation tended to present attribute dimensions to consumers and then inform them that the information on those dimensions is missing. We argue that the mere presentation of an attribute dimension is sufficient to induce inferences that might otherwise not have been made by subjects. The results of an experiment where subjects were presented only those attributes on which information was available show that missing information has little effect on consumer evaluations. Implications for research on missing information are discussed.

INTRODUCTION

Early models of consumer choice assumed that consumers use only explicitly available information in making choices (e.g., multi-attribute models). However, recent studies have shown that the inferences consumers make upon exposure to advertising information play an important role in consumer decision making (Kardes, 1988). Because consumers are more likely to make inferences when product attribute information is missing, much attention has been directed toward understanding how consumers' product evaluations are affected by missing attribute information (Meyer 1981, 1982; Yamagishi and Hill 1983; Dick, Chakravarti, and Biehal 1990; Huber and McCann 1982). Several recent studies have shown that consumers use different strategies to impute values for attributes about which information is not provided, when arriving at an overall evaluation for a product (Jaccard and Wood 1988; Johnson and Levin 1985).

Some recent research, however, has questioned the validity of the findings reported in the missing attribute literature. For example, Lim, Olshavsky and Kim (1988) and Ford and Smith (1987) suggested that the methodology used in most of the research on missing attributes may have produced effects which overstate the presence and amount of inference making. This criticism rests on the common practice in missing information research of asking subjects to first impute a value for the attribute on which information is missing prior to making an overall evaluation. Such procedures would force subjects into making inferences that they might not have made otherwise.

The present study represents a further attempt to examine the effects of stimulus presentation format and instructions on an individual's tendency to infer. Specifically, past studies, including those by Ford and Smith (1987) and Lim, et al. (1988), have examined the effect of missing attributes on product evaluation by presenting subjects with the description of a brand along a few attributes. The information on one or two attributes is left missing. Product evaluations in the missing attribute condition are then compared with the evaluations in the control condition where subjects have access to all information about the product.

We believe that the very presentation of an attribute or evaluative dimension, regardless of instructions to infer the value, may result in inference making. That is, the mere presence of an attribute name, even without any accompanying information, is sufficient to induce inferences. Therefore, even in studies that have attempted to measure inference making 'unobtrusively', the presentation of an attribute might have been sufficient to cause subjects to make inferences that they would normally not have made. Further, from a practical point of view, an advertiser is not likely to mention an attribute and then not provide any information about the product on that attribute. The objective of this research, therefore, is to examine the effect of missing information on consumer evaluations when consumers are not explicitly made aware of the attributes on which product information is missing.

A second issue concerns the number of dimensions on which information is missing. Most studies that have examined the effects of missing information have typically provided subjects with information on two or three attributes at most. In the missing information condition, subjects are deprived of information on one or two of those attributes so that subjects have information on only one product attribute (e.g., Johnson and Levin 1985; Huber and McCann 1982). Subjects' evaluations are then collected in these relatively information impoverished conditions. The likelihood of inference-making should be artificially enhanced under these conditions because information available for making an informed judgment is limited. This research attempts to examine the effect of missing information on consumer evaluations as a function of the amount of available information.

LITERATURE REVIEW AND HYPOTHESES

Several studies that have examined the effect of missing information on consumer evaluations have concluded that consumers rate products less favorably when confronted with partially described alternatives (Huber and McCann 1982; Jaccard and Wood 1988; Johnson and Levin 1985; Lim, et al. 1988). This negative reaction is attributed to consumers' tendency to discount the imputed value of the missing attribute. For example, Huber and McCann (1982) examined the extent and impact of inference making, and the implications of inferences for cognitive algebra. Subjects were asked to evaluate products on several dimensions, and information on some dimensions was missing. Inference making was either explicitly prompted or was implicit. Subjects in the explicit condition were instructed to generate a value for the missing information and then come up with overall evaluations. In the implicit condition, subjects were presented with identical stimuli and only asked to provide overall evaluations. The results showed that

missing information affected purchase likelihood. When information was missing, subjects expressed lower likelihood of purchasing the target brand. Further, subjects' inferences had a significant impact on purchase likelihood with or without explicit instructions to infer a value for the missing attribute.

More recently, Ford and Smith (1987) examined the effect of explicitly prompting inferences. The authors suggested that studies examining inference making by asking subjects to provide a value for the dimension on which information is missing may be subject to demand artifacts. In their study, some subjects were directly prompted to infer the missing value (explicit condition) while others were given no such instructions (implicit condition). However, both groups of subjects were given identical stimuli where the value of the missing attribute was indicated with a question-mark. Results showed that the two tasks provided conflicting results. Prompting an inference produced results that differed in magnitude compared to those produced without such prompting. The authors discussed the inflationary effects of prompting inferences which call into question the effect sizes obtained in previous literature. Consistent with Ford and Smith (1987), another recent study by Lim, et al. (1988) reported the absence of any effects of missing information when subjects processed product attribute information under conditions that mimicked the implicit condition of Ford and Smith (1987) and Huber and McCann (1982).

In sum, while prior studies have reported significant effects of missing information on consumers' evaluations of products, recent research suggests that most such effects are exaggerated by the methods employed. The most serious criticism that has been leveled against prior research is focused on the practice of explicitly having subjects infer the value of a missing attribute before providing their evaluations. Under such conditions, it is argued, the obtained effects may be more due to the experimental task that requires subjects to make inferences rather than to the tendency in subjects to make spontaneous inferences before evaluating a product (Ford and Smith 1987).

Interestingly, even studies that have attempted to examine inference making without first asking subjects to impute a value to the missing attribute may have generated inferences due to the methods employed. This is because in all those studies (e.g., Lim et al. 1988) subjects are presented with an alternative where the dimension on which information is missing is also listed. Therefore, even in cases where subjects are not explicitly prompted to infer the value of the missing attribute, the very presence of the dimension, could generate some amount of inference making. A more unobtrusive strategy to examine the issue of inference making, therefore, would be to provide subjects with incompletely described alternatives where the attributes on which information is missing will not even be mentioned.

The procedure of omitting the attributes themselves, and not just the information about the attributes, should provide a truly unobtrusive

examination of consumer inferences. If consumers are prone to infer the value of missing attributes, they should do so even when the attributes are not listed. On the other hand, differences in the pattern of evaluations between this condition and a condition where the attributes are listed without providing values would suggest that the methodology that has been adopted in more recent research (e.g., Lim et al. 1988) is inducing inferences that would not normally occur or inflating effect sizes.

A second issue concerns the number of dimensions on which information is available when subjects make judgments. As discussed earlier, past studies have measured the effects of missing information under conditions where the available information was unrealistically scarce. For example, in the Lim, et al. (1988) and Huber and McCann (1982) studies, subjects were presented information on only one attribute, with information on the other attribute missing. We believe that having subjects judge a product on the basis of only one attribute would greatly exaggerate the effect of missing information. Subjects should be more motivated to make inferences because they have very little information to make judgments. Thus, by providing little information on the experimental products, past studies might have inadvertently inflated the effects of missing information.

The research reported in this paper addresses the two aforementioned concerns with the existing research on missing information. First, we provide information to subjects on only those attributes for which attribute values are available. Subjects are not made aware of the other attributes on which information is missing (implicit condition). This condition is contrasted with the condition where subjects are made aware of the attributes on which information is missing (explicit condition). Subjects, however, are not asked to impute values to the missing attributes before providing product evaluations. Thus, the explicit condition in this study is similar to the implicit condition in some of the past research (e.g., Ford and Smith 1987). Second, the amount of information available to subjects is systematically varied so that subjects have information on a minimum of four attributes and a maximum of ten attributes before a judgment is rendered. It is expected that missing information affects product evaluations more strongly in the explicit condition than in the implicit condition. Further, it is expected that the effect of missing information on evaluations would decrease as the amount of available information increases.

METHOD

The effects of information presentation format and the amount of available information on subjects' evaluations were investigated in a 2 (explicit vs. implicit presentation) X 4 (information available on ten, eight, six or four attributes) between-subjects design. 192 subjects recruited from an undergraduate marketing class participated in the study for bonus points in their coursework. All subjects were randomly assigned to the treatment conditions.

STIMULUS MATERIALS

Color television sets were used as the target product in this study. This product was chosen because it was relevant to the student population and the task of evaluating televisions was not novel for them. Further, a product like television is normally evaluated on several attributes before a choice is made. Therefore, the presentation of information on several attributes is neither unusual nor unexpected for the student subjects.

The attributes on which information was presented in the final study were derived from a pretest. Forty six students from the same subject population were asked to list the most important attributes that they would be seeking information on while choosing a television set for themselves. The ten most frequently listed attributes by these subjects were selected for the final study. The attributes generated from the pretest are listed below in order of their importance as defined by the number of times an attribute was mentioned.

1. Screen Sizes Available
2. Sound Quality
3. Remote Control Quality
4. Color Quality
5. Picture Quality
6. Warranty
7. Cable Ready
8. Style and Appearance
9. Service Facilities
10. Hook-up to VCR, etc.

Although price was one of the most frequently mentioned attributes, it was not included in the study because price could have either an allocative role or could be a proxy indicator for quality (e.g., Lim et al. 1988). It is also possible that price could overwhelm the other attributes in affecting quality ratings which would affect the results of this study.

PROCEDURE

Subjects were given a printed questionnaire which contained instructions, manipulations and dependent measures (see appendix). The amount of information available and the explicitness of missing information was manipulated through the presentation of the consumer agency ratings. For example, the appendix displays the questionnaire used in the explicit presentation condition, with information available on 6 attributes. In the implicit presentation condition, with information available on 6 attributes, the names of the 4 missing attributes were not included in the questionnaire. Other conditions were manipulated accordingly. Subjects' overall evaluation of the television brand was measured by two seven-point scales (7= very good, very desirable; 1= very bad, very undesirable). Subjects' perception of the adequacy and sufficiency of the presented information was also collected. Two seven-point scales (very adequate, very sufficient vs. very inadequate, very insufficient) were used for this purpose. This measure was incorporated to check the missing information manipulation. If missing attributes were stated

explicitly, thus drawing subjects' attention to those attributes, then subjects in the explicit condition should perceive greater inadequacy of information in the explicit than in the implicit condition. After completing this measure, subjects were debriefed and dismissed.

RESULTS

Attitudes

The two items constituting the attitude scale were averaged to form the mean attitude score for each subject. The cell means are reported in the Table. An overall ANOVA on the attitude score with presentation explicitness and information availability as the independent variables revealed a significant main effect of presentation explicitness ($F=31.3$, $p < 0.0001$). Missing information negatively affected subjects' evaluations more under the explicit condition ($M= 4.49$) than under the implicit condition ($M= 5.29$). This finding supported our expectation that the very presence of an attribute name enhances the effect of missing information on subjects' evaluations.

The effect of information availability was not significant ($p < 0.15$). However, the interaction between presentation explicitness and information availability was significant ($p < 0.001$). Subjects evaluations were affected more by presentation explicitness when the amount of available information was only four attributes ($M_s=5.5$ vs. 3.7) than when it was more than four attributes ($M_s = 5.21$ vs 4.73). This finding offers preliminary support to our expectation that the effect of missing information is exaggerated when the available information is limited.

A series of a priori contrasts were then conducted to examine the attitude effects in more detail. The contrasts revealed that missing information had no effect on subjects' evaluations (all p -values > 0.25) when they were not specifically told that the information on several attributes was missing (implicit condition). That is, subjects' evaluations of the target product remained unchanged whether they had information on four, six, eight, or ten attributes.

The results, however, were different when subjects were exposed to the names of the attribute dimensions on which information was missing. Subjects' evaluation of the target product was significantly less positive when information was available on only four attributes versus when information was available on six, eight, or ten attributes (all p -values < 0.05). Interestingly, even under explicit presentation conditions, subjects' evaluations remained unaffected by missing information when the amount of available information was at least six attributes (all p -values > 0.1). The absence of effects of missing information on product evaluations even under explicit presentation conditions, when the amount of available information is sufficiently large, suggests that previous studies might have reported inflated effects of missing information when they provided information on only one or two attributes.

TABLE
Cell Means and Results of Contrasts

Dependent Measure	Implicit Presentation Information available on				Explicit Presentation Information available on			
	4 att.	6 att.	8 att.	10 att.	4 att.	6 att.	8 att.	10 att.
Attitude	5.54 ^a	5.39 ^a	5.07 ^a	5.20 ^a	3.77 ^b	4.61 ^c	4.58 ^c	4.98 ^c
Perceived Sufficiency	3.24 ^a	4.43 ^b	4.89 ^b	4.98 ^b	1.79 ^a	2.76 ^b	3.77 ^c	4.74 ^d
n	(23)	(23)	(27)	(23)	(24)	(23)	(24)	(25)

Note: Means with different superscripts, within each presentation condition, are significantly ($p < 0.05$) different from each other.

Information sufficiency

Subjects' perceived sufficiency of the available information in making their evaluations was measured using two seven-point scales. These two measures were averaged to form a mean perceived sufficiency score for each subject. It was expected that subjects' perceptions of information insufficiency would be greater when the stimulus material explicitly states that attribute information is missing than when the stimulus material does not.

As expected, the overall ANOVA on the perceived sufficiency score with presentation explicitness and information availability as the independent variables showed a significant main effect for presentation explicitness ($F=26.33$, $p < 0.0001$). Missing information negatively affected subjects' perceived sufficiency of information to a greater extent in the explicit condition ($M=3.29$) than in the implicit condition ($M=4.41$). Further, a significant main effect of information availability was observed ($F=22.12$, $p < 0.0001$) suggesting that subjects' perceived sufficiency of information systematically decreased as the amount of available information was reduced ($M_s = 4.85, 4.36, 3.60, 2.50$ for ten, eight, six and four attributes respectively). Thus, while all subjects were sensitive to the variation in the amount of information available to them in making their evaluations, the amount of information manipulation exerted stronger effects in the explicit condition than in the implicit condition.

DISCUSSION

Much of the past research on missing information and inference-making has adopted the common procedure of presenting subjects with the product attributes on which information is missing, along with the attributes on which information is available, and then measuring subjects' evaluations of the product. The results of this past research suggest that consumers have less favorable evaluations of products when attribute information is missing than when it is available. Theories of how consumers treat missing information when arriving at an overall

evaluation have been developed based on these findings.

In our research, we contended that the very presence of a missing attribute name in the information set presented to a subject is sufficient to induce inferences about that attribute. It was our belief that when subjects are not cued to a particular attribute, the probability of inference-making about that attribute is reduced greatly. The reason for the curtailment of inference-making is the reduced probability of a consumer dredging the attribute from memory, discovering that information on that attribute is missing, and then imputing a value for that attribute.

The results of our experiment were supportive of our expectations. Consumer evaluations of a television brand were virtually unaffected when consumers were presented missing attribute information implicitly (missing attribute names not presented along with the attributes on which information is available). On the other hand, explicit presentation of missing attributes (missing attribute names presented along with the attributes on which information is available) caused subjects' evaluations to be more negative when compared to the full information condition. This seems to suggest that individuals either simply chose to ignore the missing information, or, even if an inference procedure was at work, it differed markedly from the one used when the dimensions were listed and values were missing.

The effect of missing information was also found to depend on the amount of information that was available to the subjects when they made their evaluations. When subjects had information on only four attributes, with information on six attributes missing, their evaluations were significantly less positive than when subjects had information on six, eight or ten attributes. This effect, however, was limited to the explicit presentation condition.

The finding that missing information did not affect subjects' evaluations when subjects were not explicitly told that the information was missing is important because it casts doubts on the robustness of the findings reported in previous research.

APPENDIX

We would like to obtain your evaluations of a *new television brand* that should be available in your market very soon. The manufacturer of this television preferred not to reveal the company's name or price of the television, because, consumers' evaluations of products are sometimes biased by brand names and prices. Therefore, we disguised the brand name of the new product and have called it Brand K.

The information that is available on Brand K is based on several tests that have been conducted by an independent consumer product testing agency. The testing agency has employed a five-point scale in rating each feature as described below:

Excellent	=	5	Brand K outperformed the entire competition on that feature
Good	=	4	Brand K outperformed most of the competition on that feature
Average	=	3	Brand K outperformed about half the competition on that feature, but was outperformed by the other half of the competition
Fair	=	2	Brand K was outperformed by most of the competition on that feature
Poor	=	1	Brand K was outperformed by the entire competition on that feature

Listed below are the ratings given by the testing agency for Brand K.

<u>Feature/Attribute</u>	<u>Agency Rating</u>
Screen Sizes Available	Unavailable
Sound Quality	Unavailable
Remote Control	Unavailable
Color Quality	Unavailable
Picture Quality	4
Warranty	2
Cable Ready	5
Style and Appearance	4
Service Facilities	4
Hook-Up to VCR, etc.	5

Now, please answer the following questions by circling the number that corresponds most closely with how *you personally feel*.

Brand K television is:

Very Good	1	2	3	4	5	6	7	Very Bad
Very Undesirable	1	2	3	4	5	6	7	Very Desirable

The information provided on Brand K is:

Sufficient	1	2	3	4	5	6	7	Insufficient
Adequate	1	2	3	4	5	6	7	Inadequate

Specifically, it suggests that unless subjects are actually told that information is missing on an attribute, they do not seem to be affected by it.

One possible alternative explanation for this insensitivity of subjects to missing information might be their lower level of task involvement. Stated simply, given the task environment, subjects may not have bothered to think of the information that was required to make an evaluation and therefore exhibited no sensitivity to missing information (e.g., Kardes 1988). However, this argument is not supported by the finding that both in the implicit and explicit conditions, subjects' ratings of the adequacy and sufficiency of the information presented to them was affected by the experimental manipulation of missing

information. It thus appears that subjects were aware of the fact that the information given them was not complete. Their evaluations, however, were affected only when they were cued with the attribute names on which information was missing.

Another possible explanation for the results may be the "recall inhibition" effect (Alba and Chattopadhyay 1986). The recall inhibition explanation would suggest that the presence of the available attributes may have interfered with the retrieval of other attributes. Consequently, given this inability to recall, subjects may not have been sensitive to the missing attributes. Such a possibility may bear further examination.

We would also like to note here that previous research on missing information has employed experimental manipulations and subject pools (students) similar to those used in our study. Hence we are comfortable comparing results of our study with those found in the studies reviewed earlier.

Our findings also question the practice of employing stimuli that typically provide information on only one attribute with information on the other attribute missing. As argued earlier, the potential for artificially inducing inferences is very high under these conditions. The finding, in this research, that subjects are relatively sensitive to missing information when they are provided information on only four attributes, but not when they have information on six or more attributes, demonstrates that the effects of missing information are conditioned on the amount of available information. The findings reported in several earlier studies on missing information, then, have to be interpreted with caution in light of our findings.

Much of the past research on the effects of missing information on consumer evaluations has concluded that consumers evaluate products less positively when information is missing. Some recent research has questioned the methodology adopted in this literature and has cast doubts on the robustness of the findings reported in this literature. Our research extends this criticism by showing the relative insensitivity that consumers seem to exhibit toward missing information, in arriving at product evaluations, when the missing attribute information is not explicitly stated. Future research should examine the conditions under which consumer evaluations exhibit sensitivity to missing information.

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An Investigation of Self-Referencing's Influence on Affective Evaluations

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ABSTRACT

Self-referencing has been described as a cognitive process in which individuals associate self-relevant incoming information with information previously stored in memory. Studies have found that individuals who are high in self-referencing have more positive attitudes toward the ad and product. It has been suggested that self-referencing may also have an affective component in addition to the cognitive component. This study investigated the causal influence pattern of the self-referencing construct. The results suggest that self-referencing may influence cognitive reactions to the ad and product as well as both positive and negative affective reactions to the ad and product.

The self-referencing phenomenon is an important one for marketers since research has found that individuals who self-reference information are more likely to remember that information (because it becomes meaningful to them) and more likely to respond in a favorable way. Self-referencing has been described in the cognitive psychology literature as the interaction between one's previous experience and new information such that the new input can be interpreted and coded (Rogers, Kuiper, and Kirker 1977). It has been suggested, however, that the self-referencing process also has an affective quality (Rogers 1981). If self-referencing has an affective as well as a cognitive dimension, it is likely that it will influence cognitive and affective reactions to the ad and product. If self-referencing only occurs on a cognitive level, it may have little influence on affective reactions. Past research has not examined the causal influence pattern of the self-referencing construct. The purpose of this study is to investigate whether self-referencing induces two separate reactions toward the ad and product -- one affective and the other cognitive. A model is developed and tested to provide insight into self-referencing's influence pattern.

BACKGROUND

Self-Referencing

Self-referencing has been described as a cognitive process whereby individuals associate self-relevant incoming information with information previously stored in memory in order to give the new information meaning (Bellezza 1981, Kuiper and Rogers 1979, Markus 1977, 1980, Rogers 1981). Individuals who self-reference information are better able to learn and recall the information than people who do not (e.g., Bellezza 1981, 1984, Kendzierski 1980, Kuiper and Rogers 1979). Marketers should be interested in viewers' ability to self-reference advertising since self-referencing has been found to influence evaluations of an ad and subsequently evaluations of the product featured in the ad. For

instance, one study found that individuals who are high in self-referencing have more positive attitudes toward the ad and product and thus more favorable purchase intentions than individuals who are low in self-referencing (Debevec and Romeo forthcoming).

Researchers who have investigated self-referencing have focused their attention on its cognitive component. Most studies have induced self-referencing by instructing subjects to relate stimulus information to themselves (Bellezza 1984, Lord 1980), to think of personal experiences which relate to a stimulus (Bower and Gilligan 1979), or to picture themselves relative to stimulus information (Shavitt and Brock 1986, Yalch and Sternthal 1985).

In addition to the self's cognitive component, Rogers (1981) suggests that the self also has an evaluative or affective component which plays a role in the encoding of personal information. He feels that the self-referencing process has an emotional quality which the cognitive model overlooks and attributes enhanced memory of self-referenced information to both the cognitive and affective components of the self.

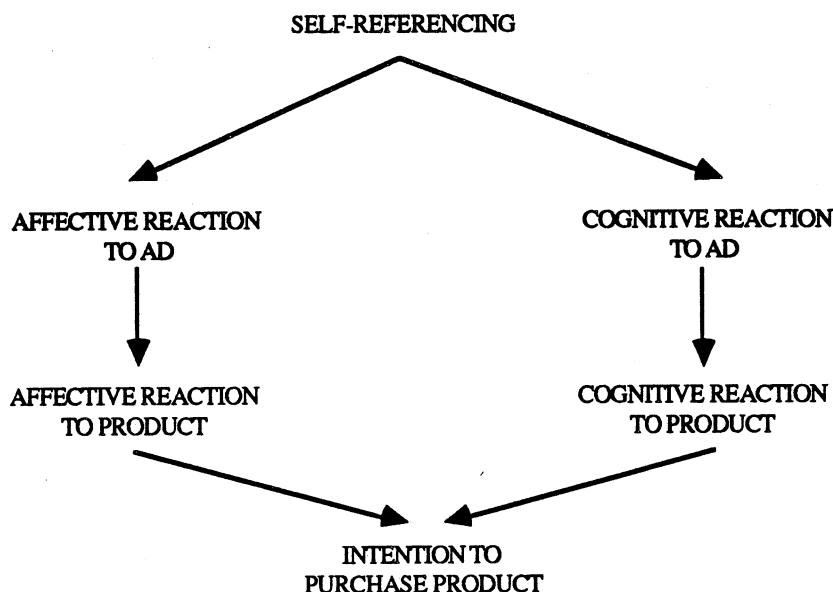
The Affective Component of Self-Referencing

The early buyer behavior models in consumer behavior emphasized the cognitive processing of information. The consumer was viewed as a rational decision maker, and thus economic motives were driving the purchase decision. Research studies focused on the cognitive reaction to persuasive communication and the subsequent effects on beliefs and attitudes toward the ad. More recent research in consumer behavior has given more attention to affective responses (feelings, emotions) to persuasive communications. Batra and Ray (1986) found that determinants of attitude toward the ad are not entirely cognitive-based; affective responses (ARs), related to moods, emotions, and feelings, mediate the acceptance of advertising. They proposed the following model:

ARs ---> Attitude_{ad} ---> Attitude_{brand} --->
Purchase Intention

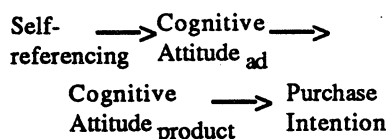
Holbrook and Batra (1987) were also concerned with the role of emotions in mediating the effects of advertising. They noted that affective responses have been treated as a unidimensional construct (positive/negative) by past researchers and suggest that future studies should emphasize the multidimensional properties of this construct (e.g., include emotional responses such as fear, love, hate, sadness, etc.). Holbrook and Batra concluded that emotional responses to an ad mediate attitude toward the ad and attitude toward the brand. Edell and Burke (1987) found that both semantic judgments and feelings mediate attitudes toward the ad and brand.

FIGURE 1
Initial Self-Referencing Model



They noted that positive and negative feelings can exist at the same time.

As stated previously, much of the research in self-referencing has focused on cognitive reactions and could be summarized by the following model:



Yet, advertising research has shown that there are two processes guiding the responses to persuasive communications -- affective and cognitive. Thus, self-referencing may mediate purchase intention through two separate responses -- one affective and one cognitive. This model, which is outlined in Figure 1, is investigated here.

STUDY

Print ads for a fictitious soft drink, TWIST, were used as the stimuli in this study. Two visual treatments were developed. One ad featured a can of the soft drink beside a glass of the beverage, and the other was a scene of students playing tennis with a small insert in the lower right-hand corner showing students studying. Three verbal copy strategies were examined which were designed to encourage varying levels of self-referencing. The copy strategies were similar in content with the exception of pronoun variations which should have led to the reader to focus on themselves, similar others, or the product. For a more specific description of the copy in the ads, see

Debevec and Romeo (forthcoming). While subjects were expected to self-reference some of the ads more than others, past research suggests that self-referencing often occurs spontaneously (Shavitt and Brock 1986). Thus, in this study, the degree to which individuals actually self-referenced the ad they viewed was important, and not the composite reactions to individual ads.

Participants were 158 undergraduate junior and senior business students (100 female and 58 male) who were given partial course credit in an introductory marketing course for their participation. Students participated in the study by signing up for one of several sessions held outside of class time. Subjects were told that they would be evaluating a sample of articles and ads for a new magazine designed to appeal to college students. Each participant was given a packet which contained an article followed by the experimental ad described above, and a second article and ad. A series of questions followed each article and ad, but only those following the experimental ad are of interest here.

Dependent Measures

Self-referencing has been conceptualized and induced in prior research by instructing the subjects to relate the stimulus information to themselves (Bellezza 1984, Lord 1980), to think of personal experiences which relate to a stimulus (Bower and Gilligan 1979), or picture themselves relative to the stimulus information (Shavitt and Brock 1984, Yalch and Sternthal 1985). Two measures were used to assess the degree to which subjects self-referenced the ad and the product. One measure asked respondents as they were viewing the ad, whether they could picture

TABLE 1
LISREL Estimates of Lambda X

Variable	Initial Model	Affective Response to Ad	
		Positive Dimension	Negative Dimension
Good	1.445	1.414	
Happy	1.266	1.238	
Cheerful	1.405	1.381	
Pleasing	1.467	1.449	
Insulted	.928		1.704
Angry	.597		1.288
Irrational	.785		1.571
Repulsed	.606		1.202

Variable	Initial Model	Cognitive Response to Ad	
		Content Dimension	Quality Dimension
Relevant	1.329	1.318	
Interesting	1.597	1.586	
Exciting	1.353	1.338	
Entertaining	1.281	1.269	
Believable	.846		1.332
Realistic	.926		1.198
Informative	.735		1.011

themselves trying the product and the other measure asked whether they could picture themselves serving the product to a friend. Subjects responded to these questions on 7-point scales (1=not at all, 7=very much so).

Affective reactions to the ad were measured by giving subjects a list of words describing different kinds of feelings (good, happy, cheerful, pleasing, insulted, angry, irrational, and repulsed) and having them indicate on 7-point scales how characteristic each word was of how they felt while viewing the ad. The feeling scales were similar to the ones used by Holbrook and Batra (1987). Cognitive reactions to the ad were measured by asking subjects to rate the ad on 7-point semantic differential scales (relevant/irrelevant; interesting/uninteresting; exciting/boring; believable/unbelievable; realistic/unrealistic; informative/uninformative).

In order to determine affective reactions to the product, subjects were given a list of different kinds of feelings (special, happy, important, concerned) and asked to respond on a 7-point scale how they think the product would make them feel. Cognitive reactions to the product were measured by having subjects rate the product on 7-point semantic differential scales

(superior/inferior; useful/useless; beneficial/not beneficial).

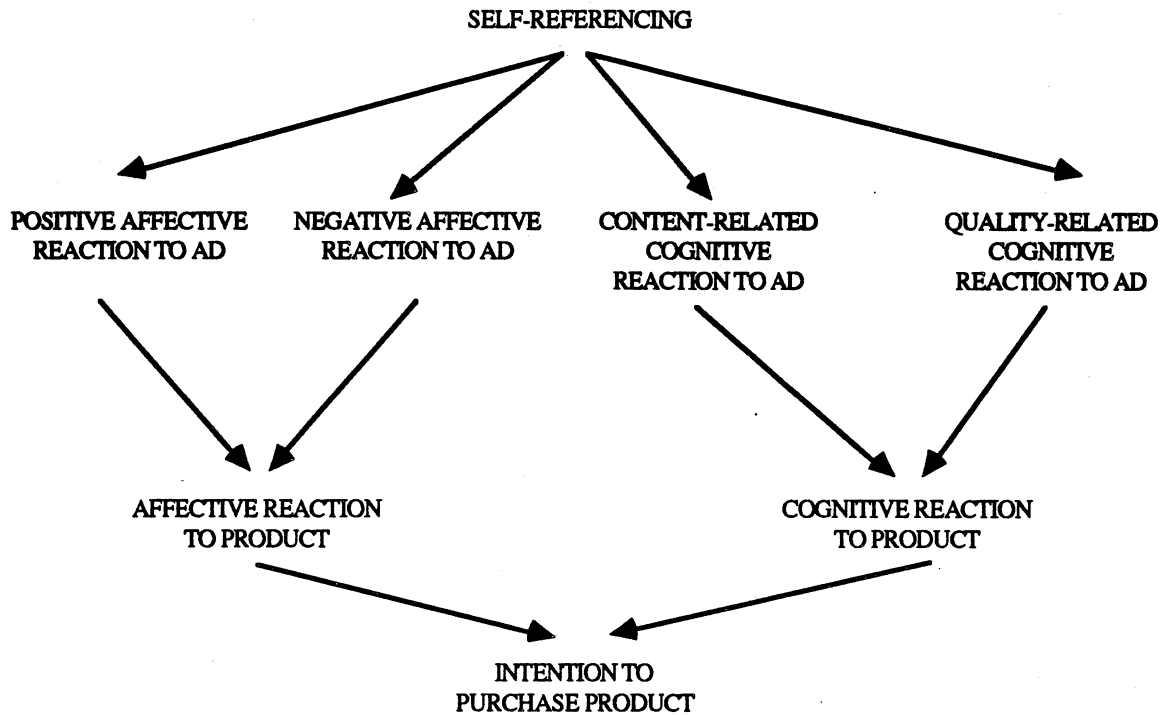
Finally, intention to purchase the product was measured by asking respondents if the product were available locally, how likely they would be to: 1) try the product, 2) purchase the product in a retail store, and 3) purchase the product in a bar or restaurant.

RESULTS

The model proposed in Figure 1 was investigated by performing a Confirmatory Factor Analysis using LISREL VI. In order to find the best fitting model, one modification was made. For both models, 158 cases were processed.

The first model investigated is outlined in Figure 1. The model's adjusted goodness of fit was rather low at .595 (Chi Square (df=293) =978.59), although it did show a significant improvement over a model which did not account for affective responses. An investigation of the LISREL estimates (maximum likelihood) of Lambda X indicated that two separate constructs might be present for the affective reaction to the ad and the cognitive reaction to the ad (see Table 1). For the affective reaction to the ad, the variables good, happy, cheerful, and pleasing appear to represent a positive dimension of feelings. The

FIGURE 2
Modified Self-Referencing Model



variables insulted, angry, irrational, and repulsed appear to represent a negative dimension. This finding is consistent with Edell and Burke's (1987) conclusion that positive and negative feelings can co-exist.

For the ksi variable cognitive reaction to the ad, the adjective pairs personally relevant, interesting, exciting, and entertaining seem to represent characteristics of the ad's content and the adjectives believable, realistic, and informative seem to represent characteristics of the ad's quality. Thus, it seems there should really be eight, not six, ksi variables which alters the original model to the modified model represented in Figure 2.

The increase in the adjusted goodness of fit for the modified model was .804 and significant at $p < .001$ (Chi Square $(df=271) = 379.53$). In addition, the LISREL estimates of Lambda X (see Table 1) that were low in the first model show considerable improvement. Thus, the addition of the two ksi variables in the modified model seems justified.

A check was also made to determine whether self-referencing does mediate purchase intention. Subjects were divided into two groups -- one high in self-referencing and one low in self-referencing. This was done by averaging the two self-referencing measures (coefficient alpha=.90). Subjects scoring greater than 4 on the scale were classified as high in self-referencing, while those scoring less than four were considered low in self-referencing. Then, each of the dependent measures was combined into a

composite measure and subjects who were low in self-referencing were compared to those who were high in self-referencing.

The results in Table 2 provide further support that self-referencing influences affective as well as cognitive evaluations of the ad and product. Respondents who were high in self-referencing had significantly more favorable cognitive and affective attitudes toward the ad and product than those who were low in self-referencing. These results suggest that in a persuasion context, self-referencing is a desirable outcome.

DISCUSSION

Since self-referencing has been shown to have a favorable impact on persuasion, it is important for marketers to have an understanding of the self-referencing phenomenon. This study has provided some insight into the causal influence pattern of the self-referencing construct.

The model developed suggests that self-referencing influences both cognitive and affective evaluations of the ad and product. Self-referencing does not appear to encourage individuals to only evaluate the stimulus ads on a cognitive level as much as the literature suggests. Instead, the results indicated that self-referencing may influence both a positive and negative affective response to the ad, which, in turn, influences affective responses to the product. Thus, as Rogers (1981) has suggested, the enhanced memory of self-referenced information may be due to

TABLE 2
Mean Responses to Dependent Measure for Low versus High Self-Referencing Subjects

Dependent Measure	Coefficient Alpha	Low S-R (n=89)	High S-R (n=69)	p value
Negative affective reaction to ad	.901	2.78	1.46	<.001
Positive affective reaction to ad	.894	5.22	6.52	<.001
Content-related cognitive reaction to ad	.867	2.89	4.90	<.001
Quality-related cognitive reaction to ad	.775	4.00	5.23	<.001
Cognitive reaction to product	.895	2.07	2.89	.003
Affective reaction to product	.855	3.49	5.24	<.001
Purchase Intention	.850	2.49	5.02	<.001

both the cognitive and affective components of the self.

Additional research is needed to provide more insight into the dimensions underlying the self-referencing construct and how self-referencing may be measured in order to understand more fully its role in persuasion. A simple measure (based on how self-referencing has been induced in prior research) was utilized in the present study. Yet, it is likely that self-referencing in a communications context is multidimensional since individuals may self-reference more than one component of a stimulus ad. For instance, viewers may relate to a product and its benefits, to a spokesperson featured, to characters portrayed in an ad, to a scene depicted, or to music or voices (in the case of a radio or television commercial). Thus, there are visual, verbal, and auditory stimuli which may or may not encourage a favorable self-reference response. Scaled measures could be developed to tap into self-relevant responding to a variety of ad dimensions.

The self-referencing construct and its measurement may also be further refined through the thought listing procedure (Greenwald 1968). Respondents' reactions to an ad can be gathered after exposure, and self-relevant thoughts may be identified and coded according to their focus (whether toward the product, ad, spokesperson, etc.), valence, and as either affective or cognitive (if possible). Scaled measures might then be developed to assess the extent to which

self-referencing occurred and the merit of the present model could once again be evaluated.

Past research has not attempted to directly measure self-referencing, but instead has offered methods to encourage it with the assumption that subsequent group differences are a reflection that self-referencing has occurred. Thus, it is a challenge to develop a scale to measure the construct, particularly in a communications context where individuals may be responding to a variety of stimuli.

This study provided initial support for identifying the causal role of self-referencing in persuasion. Broad generalizations from the data reported here cannot be made given the previous discussion and limitations in the methodology (i.e., a student sample was used, data was collected in an experimental setting, only one product class, soda, was investigated). Future research is needed to determine if self-referencing influences affective evaluations of the ad and product across a more diverse range of product categories. It may be possible that for certain product categories where the risk of making a wrong decision is high and many technical features need to be considered (e.g., personal computer, television set), self-referencing will only have an influence on cognitive reactions.

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What You See Is Not Necessarily What You Get: The Effects of Pictures and Words on Consumers' Inferences

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For some time, consumer researchers have demonstrated a strong interest in the inferences people form when processing advertisements. Inferences are defined here as conclusions derived from a set of premises using a rule relating the premises to a conclusion in a subjectively logical fashion (Hastie 1983). Consumers' inferences tend to follow everyday, rather than formal, rules of logic and they therefore have the potential to result in incorrect beliefs about product attributes (Harris 1977; Harris et al 1980).

Moreover, inferences may occur automatically when an advertisement is processed and they are integrated with explicit claims in a single representation (Bransford and Franks 1971; Hayes-Roth 1977). Thus, consumers are unlikely to be able to discriminate inferences from explicit product claims with the result that the (possibly) misleading inferences will exert a material effect on purchase decisions. Concern about this problem is exacerbated by advertisers' growing reliance on abstract product claims that do not require substantiation, but which may be subject to several interpretations (Shimp 1979).

PAST RESEARCH ON CONSUMERS' INFERENCES

As I have noted elsewhere (Smith 1991), the large majority of research on consumers' inferences focuses on the influence of the verbal claims in advertisements (cf Ford and Smith 1987; Huber and McCann 1982; Johnson and Levin 1985; Meyer 1981). Minimal effort has been directed toward examining the effects of nonverbal ad components, or the combined effects of verbal and nonverbal elements, despite the fact that advertising relies heavily on pictures, music, nonverbal sounds, color, and even odors (scratch and sniff magazine inserts, for example) in addition to copy.

In a study designed to begin to remedy this gap in the literature, I examined the effects of both pictures and words on consumers' inferences. The results indicated that consumers do form inferences based on pictorial product claims, and that these visually-based inferences tend to follow rules of covariation in a manner similar to verbally-based inferences. Moreover, I found that when pictures and words in an ad convey information about different product attributes, the picture claim tends to dominate inference formation (Smith 1991).

There are at least three important reasons to further investigate picture-based inferences. The first of these reflects a public policy concern. That is, even if the verbal claims in an advertisement are absolutely correct, the pictures may still be misleading. This possibility became very real to me several years ago when I saw a television commercial for a sweepstakes associated with some product (which I can't recall). The grand prize was \$1,000 per month for life and the voiceover was completely unambiguous in making

this claim. The visuals, however, depicted a fabulously wealthy couple living it up on the Riviera. I found myself fantasizing about the great life I would have if I were the winner, until I suddenly realized that \$1,000 per month is actually a very modest amount.

Second, when pictures and words are combined in a single stimulus, the pictures tend to be relatively more salient, and therefore attract a disproportionate amount of processing capacity (Taylor and Thompson 1982). This would imply that pictures would also be disproportionately influential on the meaning (including inferences) extracted from an ad. My finding that pictures drive inferences when they convey an attribute different from the copy is consistent with this proposition (Smith 1991).

Third, inasmuch as all media except radio have the potential to combine pictures and words in a single stimulus, it is artificial to restrict attention to the effect on inferences of verbal claims alone. (And even radio can incorporate some nonverbal elements such as music and nonverbal sounds.) It seems intuitively plausible that consumers' inferences are influenced by the gestalt of all the ad components, not just the copy. For all these reasons, ignoring pictures when studying consumers' inferential processes will result in an incomplete understanding of how consumers derive meaning from advertisements.

Research investigating the impact of pictures alone, however, is likely to suffer from the same limitations as that considering only copy-based inferences. As noted above, it seems plausible to suppose that an advertisement is processed as a unit composed of a variety of verbal and nonverbal components. Thus, the appropriate direction for future research on consumers' inferences would be to examine the total effect of pictures and words on the meaning consumers extract from advertisements. Some thorny measurement issues must be resolved, however, in order to pursue investigations of this type.

MEASURING INFERENCES

Much past research on inferences, both visually- and verbally-based, has employed dependent measures that are potentially reactive. That is, consumers' inferences about product characteristics may be formed spontaneously when an ad is initially processed or they may be prompted later by the dependent measures themselves. Inferences of the latter type are derived deductively from knowledge of the product category and do not necessarily indicate the influence of a particular advertisement on brand beliefs. It is clear that consumers draw this type of inference in natural settings, and therefore research on the processes leading to their formation is valuable. Because product category knowledge includes information from various sources, however, such research would not permit one to evaluate the specific brand inferences a consumer forms on the basis of a particular advertisement. If this is the researcher's

interest, it is critical to use dependent measures that do not prompt inferences after exposure to the ad.

Kardes (1988) has developed such a procedure for evaluating verbally-based inferences. His approach involves presenting subjects with pairs of product claims of the form "A implies B," and "B implies C." A conclusion of the form "A implies C" is also included with some of the claims pairs, but excluded for others. A recognition task is used to determine whether or not the conclusion is inferred when not explicitly stated in the stimulus.

That is, a "hit," or a correct recognition of a previously presented conclusion can be attributed to a simple retrieval process. "False alarms," however, or incorrect recognitions of conclusions that were not presented, would be indicative of inferences derived from the explicit claims. Kardes (1988) reported that inferences about missing conclusions (measured as subjects' recognition confidence for false alarms) were strongest when consumers were knowledgeable about the advertised product, and when the conclusion was logically related to the explicit claims.

Kardes' (1988) approach employs verbal dependent measures to assess the inferences that consumers derive from verbal claims. The feasibility and appropriateness of using this procedure to evaluate inferences derived from pictures, or a combination of pictures and words, poses some problems. With respect to feasibility, developing pictures that unambiguously convey claims of the type "A implies B" may be quite difficult. Even very simple pictures (black and white line drawings, for example) are subject to multiple interpretations. Any researcher who has suffered through the pretesting of visual stimuli designed to communicate a discrete concept (e.g. fast pizza delivery) can attest to the varied meanings that viewers extract from pictures. My own attempts to develop pictures that would clearly communicate the concepts in Kardes' belief statement sets without benefit of verbal labels have been noteworthy only for their lack of success.

Second, some concepts are simply not amenable to pictorial representation. For example, the statement, "Intestinal disorders often cause a loss of appetite," which was included in one of Kardes' belief statement sets, seems to defy pictorial representation. While I can easily imagine my negative reaction to food when my stomach is upset, I cannot imagine a picture that would convey that feeling.

Third, people have a remarkable ability to recognize pictures. Shepard's (1967) findings clearly demonstrate that accurate discriminations between new and old pictures can be made after lengthy intervals of time and for very large stimulus sets. Because their surface structure is so enduring in memory, the incidence of false alarms for pictorial claims would probably be very small compared to that for verbal claims. It would be impossible to determine, however, if this were due to the absence of inferences or superior memory for the specific pictures that constituted the claim set.

Assuming these difficulties could be overcome, the issue of appropriateness must be addressed.

Specifically, the question arises as to whether or not verbal recognition items should be used to assess picture-based inferences. As noted above, the persistence of the surface structure of pictures in memory would seem to argue against using visual recognition test items to assess visually-based inferences. In addition, there is no compelling reason to expect that either the form of processing (imagery of discursive) or nature of the mental representation of information (verbal or visual) is dependent upon or dictated by the form of the original stimulus. MacInnis and Price (1987) argue that "The well-substantiated ability to move from words to pictures and pictures to words suggests that there is a representation in memory that encompasses both" (p. 474).

This perspective seems consistent with the earlier suggestion that the components of advertisements are processed as a unit, rather in isolation from one another, and that the overall meaning is stored in a unitized representation. If so, these meanings should be equally accessible regardless of the form of the recognition items. Moreover, given that the proper focus of inference research is the total impact of all ad components on the meanings consumers derive, the particular form of the dependent measure (visual or verbal) should be of little concern as long as the measures tap the stored meaning of the ad. In view of the problems posed by the persistence in memory of the surface structure of pictures, however, verbal measures would seem to be the preferable alternative.

EVALUATING THE EFFECT OF PICTURES AND WORDS ON INFERENCES

I have argued that future research on consumers' inferences should properly focus on the combined impact of visual and verbal ad claims, rather than assessing the effect of either in isolation. Moreover, I have advocated adapting nonreactive measures, modeled after that developed by Kardes (1988), in such investigations. How specifically might these prescriptions be put into practice?

First, suppose that subjects were presented with the following verbal propositions (Kardes 1988):

- (1) Stresstabs contain B vitamins. (A implies B)
- (2) B vitamins give energy. (B implies C)

The conclusion, which could either be explicitly stated or omitted from this stimulus, is that:

- (3) Stresstabs give you energy. (A implies C)

Given only this verbal information, subjects are likely to incorrectly recognize (3) when it is not explicitly stated. The recognition confidence for the conclusion when only verbal information is presented could serve as a benchmark for evaluating the effect of combining these verbal claims with pictures.

For example, now suppose that claims (1) and (2) were presented together with a background

photograph of people engaged in an active sport, such as a volleyball game on a beach. By itself, such a picture would be likely to elicit a variety of interpretations about the product's characteristics, one of which might be that it gives you energy. When combined with the verbal claims, however, it seems plausible to hypothesize that the recognition confidence of the omitted conclusion, (3), would exceed that of consumers exposed to the verbal claims without the picture inasmuch as the picture reinforces the conclusion. That is, the combination of the pictures and the copy is likely to result in stronger brand beliefs than either by itself. This hypothesis could easily be investigated using Kardes' (1988) measurement procedure with the recognition test items presented in verbal form.

Even more interesting would be to examine the effect of verbal claims and unrelated pictures on inferences. For example, assume that claims (1) and (2) were presented along with a picture of a muscular man and a slender, fit woman. The verbal claims logically imply the conclusion (3), but the picture suggests a different product benefit--physical fitness--that is not logically implied by the verbal claims, and in fact may be untrue. Given the relatively greater salience of pictures compared to words when the two are combined in a single stimulus, it would be hypothesized that recognition confidence for conclusion (3) would be weaker than for the incorrect conclusion and also weaker compared to the other two conditions described. Once again, verbal recognition test items would seem to be appropriate to evaluate this prediction.

CONCLUSION

Despite some formidable measurement problems, research on the effects of verbal and visual advertising claims on consumers' inferences has progressed. To date, however, this research has been limited by its focus on evaluating the isolated effects of either copy or pictures, while failing to consider the overall impact of the two on consumers' inferential processes. It is argued that this shortcoming can be remedied by adapting Kardes' (1988) nonreactive measure of verbally-based inferences to assess the inferences derived from the combination of pictures and words.

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Consumer Stereotyping: The Cognitive Bases of the Social Symbolism of Products

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ABSTRACT

This paper provides a framework for the investigation of the cognitive processes underlying the formation of judgments regarding products typically owned by members of different social groups, termed consumer stereotyping. It is an attempt to extend the cognitive perspective to the social realm of consumption. Based on the well-established notion that products provide symbolic, social meaning about their owners, principles from the social cognition literature are extended to explain how and why such consumer stereotypes are formed. This proposed line of research provides a way to empirically test many of the theoretical concepts that have been developed regarding product symbolism.

INTRODUCTION

Most of the growing number of studies taking the cognitive perspective in consumer research deal with the various cognitive processes (attention, encoding, storage, retrieval and inference-making) as they apply to advertising or product information (e.g., Burke and Srull 1988; Johnson and Fornell 1987; Sujan and Bettman 1989), and not to information about consumers themselves. That is, the cognitive processes driving the formation of social judgments regarding product ownership by consumers have not yet been investigated. This paper brings together findings from various areas of cognitive psychology, social cognition, and consumer behavior to provide a framework for a new line of research termed consumer stereotyping which addresses these issues.

The process of consumer stereotyping may be defined as the formation of generalizations about consumption objects possessed or used by members of a particular social category. More specifically, it is based on the well-established idea that people associate ownership of certain products with membership in a certain social group. Such products take on symbolic qualities associated with the group and become descriptive of the group members. From this perspective, the consumption objects owned and used by consumers are viewed as social traits and behaviors. These consumer traits become organized in memory so as to affect later processing of related information. This viewpoint has been neglected in the field to date by consumer researchers utilizing cognitive theory and methods. Instead, they view the products people consume as inanimate objects or bundles of attributes with little concern for their symbolic significance. This is an attempt to extend the cognitive perspective to the social realm; i.e., to try to understand some of the mental processes driving the social symbolism of products.

BACKGROUND LITERATURE

Before developing the concept of consumer stereotyping in more detail, a distinction needs to be made between it and the well-known concept of

segmentation. Segmentation is the process of dividing a market into consumer groups who merit separate marketing mixes based on some similar characteristic(s). This is similar to consumer stereotyping in that both concepts involve the categorization of consumers into homogeneous groups according to some descriptor variable(s). However, segmentation is a managerial function aimed at gaining competitive advantage, whereas consumer stereotyping is a natural process people engage in due to cognitive limitations. The investigation of consumer stereotyping focuses on the *cognitive processes underlying* the association of products with various social groups and the biases in information processing that result.

The following literature review brings together findings from various areas of research that are integral to the conceptualization of consumer stereotyping that follows.

Product Symbolism

There is an established notion in the marketing and consumer literatures that products provide symbolic meaning to and about their owners above and beyond their functional uses (Levy 1959; McCracken 1988; Mick 1986; Solomon 1983). This symbolic meaning is often social in nature. In this sense goods and services are a type of social tool that serve as a means of communication between people (Grubb and Grathwohl 1967). The essence of a product, then, becomes not the physical product itself, but the relation between the product, its owner, and the rest of society. This is especially true of socially visible products that are more central in the process of social interaction among people.

These arguments support a fundamental assumption of the notion of consumer stereotyping-- that the products people own comprise items of social information about them. That is, a product is a socially perceivable trait or an identifiable unit of social information about its owner. Hence, consumers have product-ownership "traits" in addition to personality traits. Product-ownership traits represent the "extended self" (Belk 1988). Belk's conceptualization of the extended self posits that consumption objects actually become part of the self, much like personality traits. The extended self research deals with how people encode who they are into external expressions (i.e., product ownership), while consumer stereotyping research is concerned with how observers decode external product ownership information into meaningful impressions of the consumers of those products.

Product ownership, then, can be studied using social perception methods. The study of consumer stereotyping in particular is concerned with investigating the social perception of products that are typically associated with membership in various groups. At this aggregate level, perceived patterns of

product usage by members of various social groups can be ascertained and investigated in much the same manner as are the perceived personality and behavior patterns of such groups studied by social stereotyping researchers.

Categorization and Schema Theory

The organization of social information into categories provides the basis for giving it meaning and plays a central role in social perception. Rather than hold each discrete piece of information separately, people make their social world manageable by categorizing (Ostrum, Pryor, and Simpson 1981). People do not see others simply as individuals who perform isolated behaviors, but as group members exhibiting patterns of behaviors. This simplification of a complex world is the major task of category systems: to provide the maximum amount of information with as little cognitive effort as possible (Rosch 1978).

Rosch has posited a model of categorization based on schema theory. Her research involves the semantic meaning of concrete objects, but can shed light on social categorization as well. This model pictures categories as organized around salient prototypes (Rosch 1975). That is, the internal structure of a category is composed of a central meaning or prototype based on the clearest instances of that category, surrounded by other less representative members. This results in varying degrees of membership in every category, with members being somewhat good or bad representatives of the category according to their degree of deviation from the prototype. The prototype itself, which may or may not exist in reality, represents the mean or central tendency of all attributes relevant to category membership, with more salient attributes contributing more to this average. Thus, a network of attributes is formed, with fuzzy edges of categories overlapping with each other and the more prototypical core remaining distinct. Semantically, this implies that the prototype has more associative links to the category label than less representative members (Rosch and Mervis 1975).

Social categories, or groups of people based on some descriptor variable such as gender, race, or social class, are more heterogeneous than are natural object categories. That is, the underlying internal structures and the formation and inference-making processes characterizing social categories are much more wide-ranging (Lingle, Altom, and Medin 1984). Social categories often form overlapping classes which may include some of the same individuals as members in several different categories. Any one person can be categorized into a large number of groups, and any one attribute of that person, such as ownership of a particular product, can be associated with many different groups.

An attribute which is used to assign an individual to a particular category is known as a membership attribute. So when someone performs some behavior or exhibits some trait that is very typical of belonging to a particular group, he or she is quickly compared to the stereotype representing that

category and, if the similarity between attributes is high enough, is assigned to that group. Inferences are then made about the likelihood of other associated attributes being present. These are known as inference attributes, and are ascribed on the basis of category membership. Both processes occur in consumer stereotyping.

A category, as described by the prototype model, is a type of schema. Schemas lead to expectations about the structure and content of incoming information (Hastie 1981; Fiske and Taylor 1984). Schema theories deal with the differences between actual incoming stimulus information and its abstract mental representation. Incoming information is interpreted in light of what it should look like according to the schema that is invoked; i.e., a schema is a normative structure against which incoming data are matched (Taylor and Crocker 1981).

Such information is then encoded and stored along with category labels according to this schematic organization. During retrieval, other information in the same schema or in closely related schemas is easily confused with the original information, so that as time goes by, the original facts and details become blurred with schema-generated associations and inferences, and incorrect generalizations or biases can result (Hamilton 1981). This is especially the case when a particular descriptor or category label dominates the processing of information about someone, which seems to be the case with information regarding strangers or unfamiliar persons (Ostrum, Pryor and Simpson 1981). Less congruent or typical characteristics of that person may become less accessible in memory, thus forming the basis for stereotyping. For example, if I see a man wearing a sweat suit and running shoes (membership attributes), my schema for "athletic," along with my stereotype for "jock," may be invoked. Later, when recalling information about this incident, I may incorrectly remember that he was also carrying a gym bag and may forget the color of his hair. I may also infer that he was in good physical condition (inference attribute). Any specific piece of information can be evaluated, then, as either incongruent, congruent, or irrelevant with reference to the schema, and will be differentially recalled accordingly (Hastie 1981).

Stereotyping

The concept of a stereotype was originally conceived of as a "picture in our head" of a typical member of some social group that has been handed down to us by our culture and used to rationalize and defend our social position, as well as to simplify the confusion of the outer world (Lippmann 1922). More recently, it has been established that the normal cognitive processes discussed thus far are adequate for explaining the existence of stereotypes. No motivational construct is needed to explain the biases that exist in social information processing (Taylor, Fiske, Etcoff and Ruderman 1978; Taylor and Crocker 1981). They occur simply because people take shortcuts (due to processing limitations) in the interest of cognitive efficiency, and use only the most readily available, consistent, and salient information when

making judgments. Incoming social information is inevitably selected, simplified, and categorized according to certain invoked descriptor variables. This labeling produces biases in memory that lead to biased perceptions of various social groups (Allport 1954). A stereotype is, then, simply the social equivalent of the prototype, possessing all the attributes most typically associated with a particular group (Brewer, Dull, and Lui 1981; Fiske and Taylor 1984).

When processing incoming information about a particular group member, that particular descriptor variable or category label dominates the encoding, organization, and retrieval of information about that person as well as the inference-making process, so that certain characteristics of that person may become less accessible in memory, or may even be ignored altogether in the encoding process (Ostrum, Pryor and Simpson 1981). Social information becomes organized around the stereotype of the descriptor category, and the unique features of each group member are ignored. Different members of the same group are treated as equivalent through the use of shared labels, then, and cognitive energy and capacity is thus conserved (Cantor and Mischel 1979); however, this is at the cost of lost information and oftentimes incorrect generalizations (Taylor and Crocker 1981). When discrepant information is present, stereotype beliefs are much more likely to be broadened or new subtypes to be added to the network than they are to be thrown out or changed (Weber and Crocker 1983); i.e., stereotypes are very resistant to change.

CONSUMER STEREOTYPING

Each of the background topics just reviewed focuses on a different aspect of consumer stereotyping, but all are essential for a complete understanding. More specifically, product symbolism theory stresses the socially descriptive nature of products and their relationship to consumers. Categorization theory is concerned with the cognitive organization of information into categories around distinct prototypes. Seeing stereotypes as prototypes reflects the focus on the organization of information and points to the need to investigate what information about category members is accessible, to what degree, and why. Schema theory adds the idea that the mental representation of information within a category or schema is often different from the original incoming stimulus information due to biases in encoding. This is in turn reflected in the biased retrieval of information and in biased inferences made based on such information. Finally, the stereotyping literature looks at the heuristic nature of the stereotyping process, in which a salient descriptor variable dominates the processing of information in order to conserve limited cognitive space. All together we get a well-rounded picture of the cognitive view of the consumer stereotyping process. The major difference between the cognitive investigation of stereotyping in general and that of consumer stereotyping is that the attributes organized around the social stereotype are products or consumption objects owned/consumed by (or inferred to be owned/consumed by) group

members rather than personality traits or other behaviors. Thus, the goal in this proposed line of research is to ascertain whether people have product ownership stereotypes of consumers belonging to various social groups and, if so, how the cognitive processes resulting in such stereotypes operate.

Each consumer stereotyping incident involves the following cognitive processes. It begins with *exposure* to a member or members of a social group. For example, an observer might be waiting in line at the post office and overhear several men in front of him or her that appear to be friends. They are talking about an upcoming turkey shoot and one man is describing his new Winchester shotgun. As they leave they agree to meet Friday night at a local country saloon. The observer deduces that these are typical rednecks, and watches them leave the post office. He or she pays selective *attention* to traits/behaviors that might further confirm his or her deduction. One man climbs into a Ford pick-up as he reaches into his Levi shirt pocket for a dip of snuff. The other two men get into a Volvo and one man opens a bottle of Coke as his friend lights up a Marlboro cigarette.

Certain behaviors are ignored altogether, while others are *encoded* into internal representations and *stored* into long-term memory. All these processes are affected by a pre-existing stereotype of rednecks as a social category. If the observer later attempts to *retrieve* the stimulus information, certain biases in recall are likely to result, which in turn can affect *inferences* or further deductions made about the three men. A feedback loop is possible, in which the original stereotype can be affected and modified to better explain the situation.

The study of consumer stereotyping involves the investigation of expected findings regarding the major cognitive processes involved in group stereotyping: encoding of incoming information, storage or organization of information in long-term memory, and inference-making based on this information; i.e., it makes predictions regarding what kinds of biases are likely to occur in a stereotyping incident like the one just described.

Encoding

The encoding of information is the transformation of external stimuli into internal representations; i.e., the interpretation of incoming stimuli that are attended to. In a stereotyping incident more attention is paid to information that is either congruent or incongruent with the group stereotype. Less cognitive energy is required to encode information that is consistent with prior expectations since it readily fits into the existing cognitive structure, while more is required to encode and make sense of inconsistent information. For example, if I see a yuppie wearing a Polo shirt I can quickly assimilate this fact, whereas if he is drinking Busch beer I might have to think about what circumstances may have led to this atypical event. As a result, both pieces of information will be more accessible in long-term memory than will information that is irrelevant to group membership (e.g., he was also reading a copy of *TV Guide*).

One issue relevant to the encoding process is whether people engage in category-based (overall comparison with group stereotype) or piecemeal-based (attribute-by-attribute) processing. Category-based processing is more likely as the salience of the category label, the match between incoming product ownership information and category-based expectations, and the degree of short-term memory load increase (Fiske and Pavelchak 1986). Memory is much stronger and faster for category-based processed information. Thus, by presenting experimental subjects with group membership and product ownership information about a consumer, while varying such factors as salience of social group membership, congruence of product ownership profile with pretested expectations, and/or memory load task, and then measuring recall of congruent, incongruent, and irrelevant products, one could better understand the encoding processes underlying the social symbolism of products.

Organization

This involves the notion that information is organized into social categories centered around stereotypes. Since typical traits are closer to the stereotypical core, there are more links to them in the long-term memory network and thus should be relied on more heavily when new information is being stored (Cantor and Mischel 1979). For example, I have a node close to the center of my yuppie stereotype for BMW. Closely attached to this node may be places that the typical yuppie might drive to in his BMW, such as the country club to play golf or the symphony. Also close to this node might be the kinds of clothes that the typical yuppie might sport around town in. More typical products should also be retrieved easier, faster, and earlier. By measuring and comparing recall levels, reaction times, and order of recall for products of varying degrees of typicality, as well as collecting cognitive responses regarding which products helped subjects remember other products, some light should be shed on the internal structure of category representations concerning social consumption behavior.

Inference-Making

The process of gathering together information, interpreting that information, and making some judgment or inferring additional information is heavily influenced by preexistent expectations (Fiske and Taylor 1984). By knowing the category membership of an individual, people are able to draw inferences about unobservable attributes that may aid in the social judgment task at hand. For example, if I know someone is a yuppie (or categorize him as one), I may confuse information in my yuppie stereotype as being something I know about this fellow in particular so that I have a more complete picture of him. This can be studied by asking experimental subjects to infer additional products owned by profiled group members. Certain stereotyped patterns should emerge. Other types of inferences that are likely (depending on congruence of group membership and product ownership information) include intrusions of

stereotype-congruent products in recall measures, generalizations about product ownership from one group member to another, and certain affective responses.

CONCLUSION

The effects of consumer stereotyping have been proposed to be wide-ranging and diverse. By studying the cognitive processing of product ownership information about group members as has been suggested, a rigorous empirical investigation of the social symbolism of products is possible. This is especially needed in the field of consumer research at present in order to provide a balance with the heavy use of qualitative methods in symbolic research. Understanding the specific cognitive processes driving the social symbolism of product ownership would help to illuminate the valuable descriptive work that has already been done in this area.

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A Model of the Scripting of Consumer Lovemaps: The Consumer Sexual Behavior Sequence

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ABSTRACT

In order to more systematically explore the relationship of sexuality and consumption as linked in consumer lovemaps, this paper considers the issue of how such lovemaps are scripted. In so doing, it adapts a model developed in the field of sex research, the Sexual Behavior Sequence (Fisher 1986), and develops the "Consumer Sexual Behavior Sequence." The stages of the model are outlined in terms of various forms of sexually-related consumer behavior, and finally implications for a research agenda are discussed.

Now after a girl ...has manifested her love to him by the various outward signs..., the man should make every effort to gain her over. When the intentions of the girl are known..., the man should begin to make use of her money, an interchange of clothes, rings, and flowers should be made...And finally at the time of giving her some betel nut, or receiving the same from her, or at the time of making an exchange of flowers, he should touch and press her private parts, thus bringing his efforts to a satisfactory conclusion (*The Kama Sutra* 1966, p.160).

Much as the above quote illustrates, not only is it apparent that "Our everyday world abounds with symbols of affection," as Ernest Dichter (1964, p.155) once observed, but also that the whole lovemaking process is pervaded by acts of consumption. In fact Dichter's name is often associated with sexuality in relation to his practice of "motivation research" in which he studied the basic underlying and often hidden motivations of consumers, including the sexual among others. For example, he noted the 'earning' virility of men who give more expensive furs to women (1960) and explored the sexual implications of various forms of fashion for both men and women (1989). Moreover, as long ago as the 1930's, the sociologist, Paul Lazerfeld, had noted in similar fashion the erotic impact of female shoe salespeople upon male buyers (Fullerton 1990). Yet, although sexuality seems to have implications of mythic proportions for informing both consumer research and behavior, relatively little academic research has explored the sexual-consumption relationship in a systematic or theoretical manner (Gould 1991). This paper aims to remedy the problem by first exploring and formulating the theoretical links between sexuality and consumer behavior and then to set a research agenda for empirically investigating these links.

CONSUMER LOVEMAPS

The central theoretical construct of the sexuality and consumption relationship is the consumer lovemap (Gould 1991), derived from the more general construct of sexual lovemaps. A

lovemap has been defined by Money (1986a, p.290) as:

A developmental representation or template in the mind and in the brain depicting the idealized lover and the idealized program of sexueroetic activity projected in imagery or actually engaged in with that lover.

In general, a consumer lovemap of whatever type may be defined to include as a subset those aspects of the more general lovemap (Gould 1991) which involve the imaging, purchase and use of product-objects directly used in engaging in lovemaking or attracting a sexual partner (e.g. sexual toys, sexy clothes), forming a loving relationship, engaging in person service sexual exchange (e.g. prostitution), or consuming sexual ideas (e.g. reading sex manuals or watching videotapes to learn new sexual practices). However, much of sex research deals with pathological or paraphilic lovemaps (Money 1986a). In contrast to paraphilia, normophilia represents erotosexuality in conformity with a society's standards (Money 1986a). However, we should not think of paraphilia-normophilia as merely categorical opposites but rather as composing the poles of a continuum. In this regard, Simon (1989) notes that one of the greatest although neglected contributions of Freud was his emphasis on the continuities between what is viewed as normal and abnormal. In summary, the lovemap view leads us to consider two things in the present context: (1) consumption objects can become part of one's lovemap in that one desires and seeks them in engaging in the lovemaking process, and (2) insight regarding the paraphilic use of goods may spill over regarding normophilic use and vice versa. Thus, while much of our focus here will be on normophilic behavior, consumer behavior can be seen to be inclusive of pathological paraphilia as well as normophilia, although as consumer researchers we need not be rigidly restricted to these normative views.

PROCESSES UNDERLYING THE SCRIPTING OF THE CONSUMER LOVEMAP

The macrolevel forces of evolution and sociocultural patterning may be seen as the larger forces underlying an individual's sexual behavior and lovemaps (Fisher 1986). Such behavior may be viewed in terms of both unconditioned motivation, largely determined by biological evolution, and conditioned (acquired) motivation, largely determined by sociocultural factors (Fisher 1986). In this context, much of consumer behavior may involve the conditioned and scripted use of products (e.g. attractive clothing; erotica) to obtain and/or enhance what we might call the 'relatively' unconditioned

erotic stimulation provided by sexual arousal and intercourse, i.e. goods play into and help shape the ways our biological desires come to manifest and express themselves. Moreover, classical conditioning which pairs an object with an unconditioned erotic stimulus can make that object into a conditioned erotic object (Fisher 1986). Sexual scripts involving these pairings develop in terms of sexual involvement rooted in the psychological magnification of intense sexual experiences and come to comprise automatic rules of perception and behavior (Mosher 1988). Thus the consumer is led to consider a sexual stimulus, such as an erotic movie or type of clothing, in terms of a goodness-of-fit between it and his or her script. Thus, products which fit a script through conditioning or suggest aspects of one are more likely to be used than are others, particularly where sexuality is salient. Mosher using the example of pornography notes that these scripts become very specific so that market-signals conveying specific pornographic products are used to reach consumers (e.g. "water sports," "AC/DC") and some scripts are also sex-negative in leading to avoidance behavior. However, as Mosher further notes, scripts are incomplete and conditional and thus are subject to change. In this regard, marketing may be seen to influence sexual scripts, especially to the extent that it persuades consumers to inject marketed products into the lovemap. For example, advertising which has classical conditioning properties (Gorn 1982) may be especially effective in this regard and thus should be viewed as creating conditioned erotic objects or fetishes when it pairs 'relatively' unconditioned sexy spokespeople with products.

THE SEXUAL BEHAVIOR SEQUENCE AS A CONSUMER BEHAVIOR SCRIPT

This section takes a basic model, the Sexual Behavior Sequence, which has been used in Western social psychology and sex research and develops it into a model for sexually-related consumer behavior. In general, sexual interaction has been viewed in various approaches as occurring in stages or steps which compose a basic sexual script and each stage of which may be seen to possess its own script. The most basic approach involves three stages: (1) proceptivity as the interplay between male and female in preparation for the sex act, (2) acceptivity as the actual process in which two individuals accept each other in the sex act, and (3) conception which may or may not occur and represents both a sequel to lovemaking as well as a component (Money 1986b). Relatedly and more complexly, the Sexual Behavior Sequence models sexual behavior in terms of erotic stimuli which lead to arousal, affective, cognitive and imaginative response dispositions, which in turn lead to evaluative and expectational processes, preparatory sexual behavior, eventual sexual behavior and outcomes as feedback (Fisher 1986). This model also may be viewed as capturing the dynamics of any single sex act as well as defining the parameters of an individual's sexual development over time. Eroticism aroused in the marketplace, such as through sexy ads or movies, may be seen as informing the whole

behavior sequence, especially in terms of imaginative and expectational processes, as well as standing as distinct 'sexual events', themselves.

The Sexual Behavior Sequence model will be used as the basis for a model shown in the Figure of what can be called the Consumer Sexual Behavior Sequence. The model also reflects the stages of the sexual act outlined by Money (1986b) as well as the three proceptive steps noted by Freund and Blanchard (1986), i.e. (1) location of a sexual partner, (2) pretactile interaction (e.g. looking) and (3) tactile interaction. The proceptive stage should also be viewed as including an even more preliminary step, prior to locating a partner, i.e. setting the stage and preparing oneself for a potential partner in terms of such things as selecting methods of birth control and making oneself sexually attractive (Fisher 1986).

Erotic Stimuli

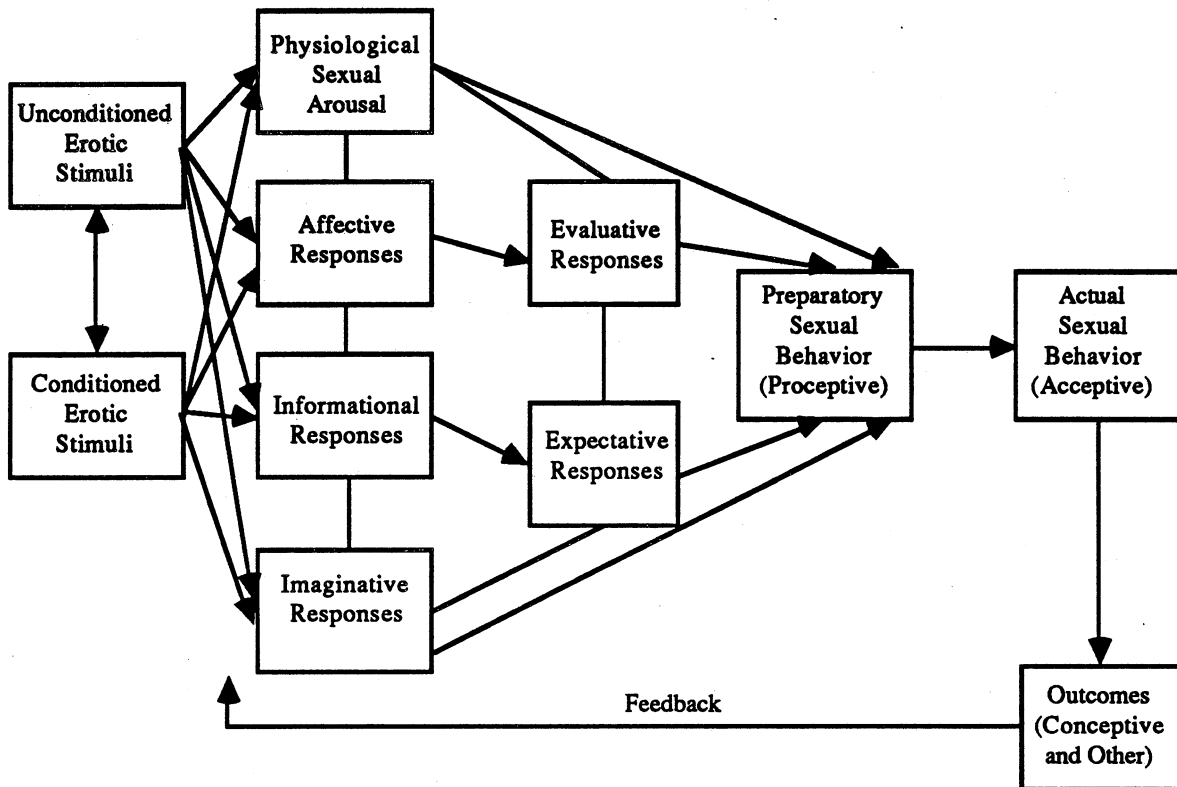
As noted above there are two types of erotic stimuli: unconditioned and conditioned. According to Fisher (1986), unconditioned erotic stimuli cues lead to unlearned sexual physiological responses. These stimuli involve tactile stimulation of erogenous zones and also possibly the effects of pheromones, chemical secretions which act as sexual attractants. Conditioned erotic stimuli seemingly can involve just about anything which gets paired with unconditioned stimuli (Fisher 1986). Consumer activity serves both as a major erotic conditioning force and paired conditioned stimulus in peoples' lives. For example, if one sees a sexy commercial for a product and becomes sexually aroused, it is likely that the advertised product will become marked with sensual feelings, perhaps as a function of the number of times it is seen. Advertising along with film, books, and other representations of sexual behavior and/or sexual-like behavior, including pornography, may also be seen as providing vicarious sexual experiences (Kelley, Dawson and Musialowski 1989) which may stand by themselves as erotic experiences or lead to various erotic experiences later on. This culturally produced sexual conditioning is experienced in our postmodern era "as a marketplace of expectations" in which different versions of the sexual are encountered by different versions of the self (Simon 1989).

Response Dispositions

The Sexual Behavior Sequence model suggests that certain response dispositions mediate the effects of sexual stimulation on sexual behavior (Fisher 1986; Fisher et al. 1988). As discussed in the following sections, these include physiological sexual arousal, affective, and informational (beliefs and expectancies)/fantasy or imaginal responses.

Physiological Sexual Arousal. Physiological sexual arousal occurs in response to both conditioned and unconditioned stimuli (Fisher 1986). Consumer behavior activities can be seen to produce and/or interact with physiological sexual arousal in terms of the following: (1) consumer terms: intentional (e.g. the use of pornography in which consumers deliberately seek to manipulate their own sexual

FIGURE
The Consumer Sexual Behavior Sequence



Source: Adapted from Fisher (1986)

- ↔ Indicates strong joint effect on other variables
- Indicates primary relationship
- - - Indicates secondary relationship

arousal) or unintentionally and/or incidentally where individuals become aroused in the course of consumer activity (e.g. being aroused by a salesperson where the customer lacked any motivating thought prior to the sales encounter of seeking to be aroused), (2) marketer activity: deliberately induced (e.g. 'relatively' unconditioned attractive models in an ad are paired with conditioned product stimuli to produce both arousal and desire for the product) or unintentionally induced (e.g. a consumer uses a product in the context of a sexually arousing encounter and the product enters his or her lovemap as a conditioned arousal stimulus without any intention or motivation at all on the part of the marketer).

Affective-Evaluative Responses. In the Sexual Behavior Sequence, positive or negative affect mediate evaluative approach/avoidance responses to preparatory sexual behavior. Here we will consider two normophilic traits or styles related to affect: (1) erotophilia-erotophobia and (2) lovestyles.

(1) **Erotophobia-Erotophilia.** Fisher (1986) focused on the trait of erotophilia-erotophobia as being particularly important in affective-evaluative responses to potential sex acts. As the terms suggest, erotophobia represents an aversive view of sexual behavior and erotophilia represents a positive view. This trait has been operationalized as the "Sexual Opinion Survey," (e.g. "Erotica (sexually explicit books, movies etc.) is obviously filthy and people should not try to describe it as anything else") (Fisher et al. 1988). Research assessing erotophobia-erotophilia has found among other findings that erotophobic individuals were less likely to learn contraceptive information, to engage in breast self-examination, to engage in preventive behaviors with respect to sexually transmitted diseases, to use contraceptives regularly, to respond positively to erotic films, and to anticipate sexual behavior (Fisher et al. 1988).

(2) **Lovestyle.** Lovemap research has traditionally taken place within the field of clinical

sexual research with a heavy though not exclusive emphasis on biological factors (e.g. Money 1986 a,b). However, love, as studied in social psychology especially as expressed in terms of lovestyles or approaches to love and based on individual differences (Lee 1973), is related to sexuality and thus should be recognized as an aspect of lovemaps. Perhaps, the most well-researched and compelling theory of love centers on Lee's (1973) typology of six types of love. Within Lee's typology, Eros represents romantic, passionate love. The other types of love styles are: Ludus (game playing love with diverse partners), Storge (friendship love), Mania (possessive, dependent love), Pragma (pragmatic, or shopping list love - love shopping) and Agape (nondemanding, selfless love). In terms of implications for consumer behavior, Woll (1989, p. 499) reports that the erotic lover (as indicated by a high score on the Eros dimension of the Love Attitudes Questionnaire) was likely to agree with the statement, "I like the idea of having the same kinds of clothes, hats, plants, bicycles, cars, etc., as my lover does." This clearly has implications for consumer behavior in terms of lovers' lovemap congruence, product portfolios and self-concepts, although according to Woll it is not clear whether this characteristic of the erotic lover is central to or incidental to this love style. As another example, the Pragma lover was cited by Hendrick and Hendrick (1986) as being the one who uses criteria matching and who is likely to be a "computer mating" person. Thus, the Bernard and Adelman's (1990) consumer research study of an introduction service probably largely involved Pragma consumers although they did not frame their study in this way.

Information-Imaginative-Expectancy Response Effects. The Sexual Behavior Sequence model suggests that people learn cognitive processing responses to erotic stimuli which take the form of information, imagination and expectations (Fisher 1986). One may acquire information about sexuality from a variety of sources such as sex education, sex manuals, pornography, and direct experience. Sexual fantasy in the form of internal sexual imagery is thought to possess motivating properties and is linked directly to preparatory sexual behavior, according to Fisher. Both also lead to the formation of expectations about sexual activity which govern how one conceives the sex act and prepares for it.

Preparatory Sexual Behavior (Proception)

Preparatory sexual behavior involves actions which prepare and set the stage for the actual sex act, including such things as pretactile and tactile behavior, using birth control devices, establishing the setting for the sexual act, and attracting, seeking or maintaining relations with a sexual partner in terms of the stages outlined above (Fisher 1986). Often these behaviors may involve aspects of consumption such as choosing, purchasing and using a form of birth control; purchasing furniture, lights, art, music or even a home etc. for the proper setting for lovemaking; going to a bar, dating service, or other less overt partner-seeking place (e.g. activity groups such as running clubs) to find a sexual partner;

exploring and defining a sexual/love relationship through gift giving (Belk and Coon 1991); and if one already has a partner, sharing in and evolving a daily consumption pattern of mutual benefit. For example, dancing may be seen in some cases as moving beyond the attraction phase to 'test-driving' the dance partner as a potential sex partner in that it allows for a trial intimacy which approximates the sex act but without all its final attendant consequences. In fact, it has become for many a proxy act for the total physical intimacy due to AIDS. For ongoing relationships, dancing serves as foreplay for the ensuing sex act as well as embodying it in a different form.

It is important here to make a distinction between what is directly tied into one's lovemap and what is more indirectly tied. For instance, one person may think of the purchase of a piece of furniture as directly tied into attracting a sexual partner or sustaining a sexual relationship while another might only see a connection if it is pointed out to him or her. Yet another person might not consciously ascribe a sexual or love motive to such a purchase but might feel one unconsciously. Still another person might neither see such a connection nor even 'experience' one unconsciously. The degree of connection between consumption objects and one's sexuality is likely to depend in large part on the degree of erotophilia the individual experiences. The erotophilic individual is likely to view more various acts of consumption in terms of sexuality than the erotophobic one. This may be framed as an example of category width (Pettigrew 1956) with the erotophilic individual being seen as a broad categorizer with respect to the sexuality present in their consumption and the erotophobic individual being seen as a narrow categorizer. Another frame is one's lovestyle - individuals are likely to view consumer goods in terms of their own sexual/lovestyle.

Actual Behavior Involved in the Sex Act (Acception)

Sexual expression in the form of actual or acceptive sexual behavior is likely to parallel preceptive-preparatory sexual behavior in that the attitudes and values reflected in various erotic versus non-erotic-orientations are likely to carry over and determine one's sexual behavior with respect to goods use in similar ways although the goods used will differ. Therefore, consumers perform many consumption acts related to lovemaking (including fore and after play) which involve products and/or ideas concerning sexual methods and ideologies which they are consuming. Thus, for example, the use of sexual toys, music, incense, certain types of bedsheets, beds, couches and hot tubs as locations for the sex act, or the proverbial smoking of a cigarette after sex, etc. are forms of consumption which pervade the actual sex act. Some of them such as various sexual toys may be used as substitutes for sex with another person (Morris 1971). Moreover, the very act of intercourse, itself, has been compared to a form or act of possession (Dworkin 1987, p. 63).

Outcomes (Conceptive and Other)

The final part of the Consumer Sexual Behavior Sequence involves the outcomes of the sexual act carried out (Fisher 1986). These outcomes may take the form of conception, relationship maintenance and dissolution, sexual experience and feedback to the future performance of the sex act, as well as its various antecedents, and sexual satisfaction. Conceptive outcomes are marked by a 'love child' and much sexual energy may as result of this outcome be sublimated and/or manifest in consumption related to that child. Other outcomes which are more overtly sexual in nature are dependent on expectations and fantasy which to some degree are fueled by consumer activities, such as the reading of sexual magazines or watching pornography. However, paradoxically these may often lead to dissatisfaction as one fails to meet one's own expectations or those of others, or one feels that others may be experiencing more sexual satisfaction than oneself (Fisher 1986).

Sexual outcomes also have a great bearing on interpersonal relationships in terms of their (dis)continuance and nature. A key element is the fact that as relationships continue, sexual habituation and also loss of libido are key elements which lovers must confront. To this end, lover-consumers may seek to engage in various processes of variety-novelty seeking within the relationship in order to refresh or restimulate its sexual as well other aspects. We argue here that one prime motivating force driving much of adult consumer behavior is this need to reinvigorate one's sexual-love relationship and that much of this is commodified and tangibilized in the form of consumption activities (cf. Belk and Wallendorf 1990). Consumers take stock of their sexual outcomes and the status of their relationships and often look to external activities and objects for help as props in staging these processes - everything from vacation getaways to new lingerie to couples' renting of pornographic movies to fat-reducing diets may be seen in terms of rejuvenating one's relationship as well as oneself. Thus consumers in engaging in the responses described above through the course of a relationship constantly rescript and reritualize their sexual lives. As Davidson (1990, p. 16) observes:

If your romantic script is as predictable as a summer-rerun maybe it's time to get a new script. The elements of a romantic script are time, place and manner. A new time for a romance (maybe the afternoon), or a new place (a resort hotel weekend) can turn just another tryst into a memorable and romantic rendezvous. But for my husband and me,... we have found that we can create an exotic experience at home... with... adult games... The target audience: couples who have been together long enough to be set in their romantic ways...Adult games make it easy to change your routine and alter the style of your evening.

DISCUSSION AND IMPLICATIONS FOR A RESEARCH AGENDA

The magnitude of consumption's role in consumers' sexual scripts and the degree to which it can effect the outcome of a sexual encounter, as well as the degree to which it itself is altered by the encounter, are crucial matters for researchers to explore in terms of understanding the relationship of sexuality and consumption. The following points should be addressed:

1. The Consumer Sexual Behavior Sequence model suggests that sexually-related products should be considered in light of the various stages of the developing and changing sexual relationship since their role differs both qualitatively and quantitatively throughout. Thus future research needs to focus on how product use might vary across the stages of the model (i.e. products used to attract a lover may not necessarily play a similar role in maintaining a relationship), and also to compare and relate this model to other consumer behavior models.
2. The presence of individual differences, such as those based on biological sex, stage of the lifecycle, and personality traits (e.g. erotophilia-erotophobia), as well as cultural differences, indicate that researchers need to investigate how consumption may take different forms, play different roles, embody different meanings, and allow different behavioral enactments or sexual roles for various individuals through the stages of the Consumer Sexual Behavior Sequence.
3. Mosher (1988) suggests that certain sexual experiences are psychologically magnified so that for a product to be used in conjunction with a lovemap there must be a specific goodness-of-fit between the product and the script. We need to investigate how these goodnesses-of-fits are produced, how they operate and how they influence consumer choice and product use at various stages of the Consumer Sexual Behavior Sequence.
4. Consumer and marketing exchange processes should be considered for the their sexual content, especially in terms of sexual relationships. We have no knowledge, for instance as to how couples develop joint preferences for sexual-related products during the development of their relationship as it follows the stages of the Consumer Sexual Behavior Sequence, although it has been suggested that affection and intimacy play important roles in family decision making in general (Park, Tansuhaj and Koloe 1991). Thus,

exploration of relationships in terms of intimate feelings and love styles would be useful in understanding sexual influence vis-a-vis other personal influence variables (e.g. need for companionship).

5. The consumer's economy of desire plays itself out in self and others' demands of consumption, sexuality, work, leisure, and various relationships. Future research should investigate how consumers distribute their resources of personal energy, effort, and vitality, time, money, relationship capital etc. to meet their sexual and other needs and desires. Moreover, since this distribution of personal resources may vary in focus across various stages of the Consumer Sexual Behavior Sequence, we need to investigate these phenomena as likely changing dynamically as one's relationships and sexual life unfold.

CONCLUSION

This paper has shown how sexuality's purportedly pervasive effect on consumer behavior has a potentially powerful theoretical base which is rooted in previously ignored developments in the field of sex research and related areas. Indeed, it would appear that exploring the Consumer Sexual Behavior Sequence has the possibility of engaging consumer researchers of all methodological stripes.

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The Effects of Product Symbolism on Consumer Self-Concept
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ABSTRACT

Using the perspective of self-congruity theory as an organizing nomological framework, this paper develops an integrated model of the effects of product symbolism on consumer self-concept. The model specifies predictors of recognition or learning of product symbolism. It identifies the mediating process in which consumers use product symbolism to define themselves in the context of a specific situation. The model also asserts that the outcomes of product/self-perceptions across a constellation of products, across situations and over time serve to establish an extended self.

INTRODUCTION

The literature in symbolic consumption, product symbolism, and self-concept is rich and varied. Consumer researchers have studied many factors which influence the formation and change of product symbolism (or product value-expressiveness): product-related factors (Belk 1981; Sirgy, Johar, and Wood 1986; Varvoglis and Sirgy 1984), individual difference factors (Belk 1978; Belk, Mayer, and Bahn 1981; Belk, Bahn, and Mayer 1982; Hamid 1969; Munson and Spivey 1981; Solomon 1983; Sommers 1964), and social system factors (Hirschman 1985; McCracken 1988a). Consumer researchers have also explored possible mechanisms through which product symbolism contributes to the formation and change of the consumer's self-concept (Belk 1988; Sirgy 1982; Solomon 1983).

This paper attempts to integrate the concepts and findings of many studies in symbolic consumption, product symbolism, and self-concept. The goal is to develop a conceptual foundation for an integrative model that (1) specifies factors which predict or determine a tendency in consumers to recognize and learn about product symbolism, (2) identifies the process which mediates consumers' use of product symbolism to define themselves in specific situations (product/self-perception), and (3) shows how product/self-perceptions across a constellation of products, across situations, and over time establish an extended self. The integrative model is developed using self-congruity theory (Sirgy 1986) as the guiding (though not only) theoretical perspective, which explains and organizes the relationships.

**SELF-CONGRUITY THEORY,
PRODUCT SYMBOLISM AND
CONSUMER SELF-CONCEPT
RESEARCH**

Self-congruity theory is a conceptual framework developed by Sirgy (1986) to explain such self-concept processes as self-evaluation, self-perception, self-concept change, self-concept differentiation, self-concept generalization, decision making, information search, self-monitoring, and is the fundamental process all these self-concept processes have in common. Self-congruity, the match between a perceived self-image outcome and a self-expectancy, is information about the self that is put into the cybernetic system. (A cybernetic system is a comparator process in which input signal is compared with a reference value. Deviations from the reference value produce output designed to impact the environment for the purpose of bringing about homeostatic balance, a state in which the input signal is least discrepant from the reference value). Self-expectancy is the reference value retrieved from memory that serves as a standard of comparison for the perceived self-image outcome. Sirgy argues that the self-congruity process coexists with the aforementioned self-concept processes but is guided by different self-concept motives (needs for self-esteem, self-consistency, and self-knowledge). For example, self-evaluation involves a comparison between a perceived self-image outcome and a self-expectancy; however, the objective is an *evaluation* of the relative "goodness" of the perceived self-image outcome, and this process is mostly guided by the need for self-esteem. More specifically, given that the self-image outcome is better than expected, the outcome is said to have a self-enhancing effect. Conversely, if the self-image outcome is worse than expected, the outcome has a self-debilitating effect. Thus, if a consumer expects to conform to the norms and standards of high society but finds s/he has bought a car that has a working class image, s/he may evaluate him/herself negatively for having purchased that car because the self-image outcome of the purchase deviates from his/her upscale self-expectancy. Sirgy argues that a negative correlation between the self-image outcome of a purchase and self-expectancy decreases the consumer's self-esteem. Self-perception also involves a comparison between a self-image outcome and self-expectancy; however, the objective here is to *interpret* the perceived self-image outcome in relation to a self-expectancy, and this process, Sirgy says, is guided by the need for self-consistency, the need to maintain consonance between self-images and behaviors ascribed to the self. Since a review of the entire subject of self-congruity theory is beyond the scope of this paper, we will only focus on self-perception and self-concept generalization, ideas

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borrowed from self-congruity theory that are central to the integrative model developed in this paper.

According to self-congruity theory, self-perception is a process in which information about an event is ascribed to the self. More specifically, the perceived self-image outcome is matched with a particular self-expectancy. For example, a woman consumer is complimented on her good taste in wearing fashionable clothes. How does she make sense of this message? If she thinks of herself as being a fashionable dresser, then she will ascribe the message to her fashionableness, assimilating the message into her self-schema. Hence, her self-perception is explained as a self-congruity process in which a message or event confirms a particular self-expectancy. This self-congruity process is mostly guided by the need for self-consistency, i.e., the motivational tendency to accept information about the self that is consistent with one's established view.

According to self-congruity theory, self-perception is moderated by the strength of the perceived self-image outcome and the strength of the self-expectancy. That is, given weak perceptions of self-image outcome and/or weak self-expectancies, the strength of self-perception is also weak. Thus, if the woman consumer is not certain that she "heard the compliment" or is uncertain about her fashionableness, the change in self-perception resulting from the compliment may also be weak, for she may feel *uncertain* about her interpretation of the message concerning her fashionable dress.

If, on the other hand, incoming information is congruent with the established self-image, that self-image is strengthened, for high self congruity increases self-concept generalization, whereas low self congruity decreases it. For example, suppose a woman wearing a fashionable outfit at work is told that she looks fashionable with that outfit. If this message matches her assessment of herself, it will consolidate her image of herself as a fashionable person. Thus, the image (self-expectancy) increases in salience or connectedness. An increase in the generalization of a specific self-expectancy, according to self-congruity theory, reflects an increase in the salience of this self-expectancy in an overall hierarchy of self-expectancies. This means that the self-assessment becomes more central in the person's belief system and is likely to play a greater role in the person's life, a fact which is important for consumer research that focuses on the extended self.

TOWARD AN INTEGRATED MODEL OF PRODUCT SYMBOLISM AND ITS EFFECTS ON CONSUMER SELF-CONCEPT

The proposed integrated model is shown in Figure 1. This model shows that qualities of the product and consumer influence the recognition/learning of product symbolism. In turn, the consumer's recognition/learning of product symbolism and his/her self-image moderate the relationship between product use/ownership and product self-perception. Then, over time and across product-related situations, those product/self-

perceptions contribute to the formation and change of the consumer's self-concept (the extended self).

Finally, the consumer's materialism and recognition of the product constellation play a moderating role in the formation and change of his/her extended self.

Before we start addressing the conceptual relationships shown in the figure, let us first define the central variables of the proposed integrated model. These are recognition/learning of product symbolism, product/self-perception, and the extended self. *Recognition/learning of product symbolism* refers to the degree to which a consumer is aware of associations between symbols and a given product. For example, a sports car is associated with a kind of person who is sexy, attractive, young, and socially outgoing. These idealized people associated with the sports car are traditionally referred to as product symbols (Sirgy 1982; Solomon 1983). This construct is also traditionally referred to as "strength of product user image" and "product value-expressiveness" in the consumer self-concept literature. In self-congruity theory, recognition/learning of product symbolism can be construed as the strength of the product image, the perceived self-image outcome of using a particular product.

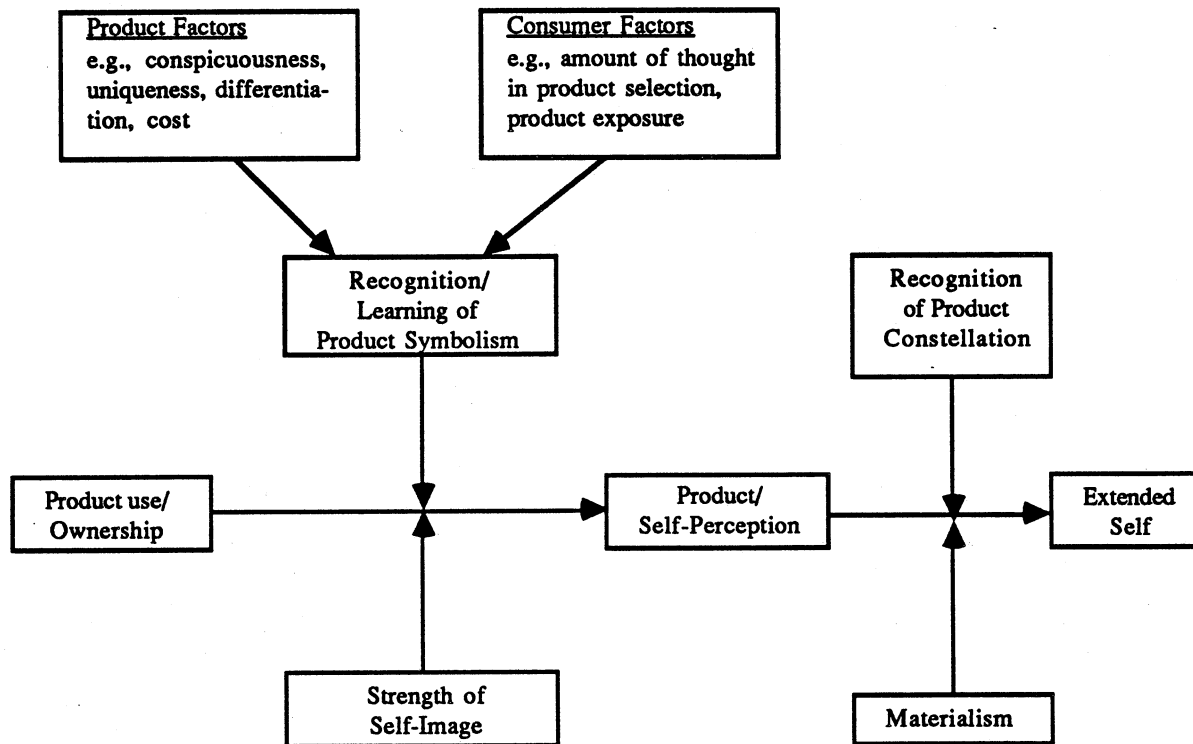
Product/self-perception refers to the formation and/or change of beliefs about the self as a consequence of the use or ownership of a product or service. For example, if a woman consumer who often patronizes an upscale clothing boutique infers that she is an affluent person because she patronizes the store, she is said to have made a product/self-perception. She formed an image of herself based on her patronage of the clothing boutique. This self-perception is product and context-specific. That is, she may only perceive herself as being upscale in the context of purchasing and wearing clothes. The situation-specificity of product/self-perception is important, since the *extended self* is defined just like product/self-perception except that the self-related beliefs are more cross-situational, i.e., *not* situation specific. That is, the extended-self refers to the extent to which people view themselves as being a certain kind of individual because they use or own certain product/service constellations. Using self-congruity theory, product/self-perception can be construed in terms of self-perception, whereas the extended self can be thought of as the outcome of self-concept generalization.

Predictors of Recognition/Learning of Product Symbolism

As previously mentioned, recognition/learning of product symbolism refers to the extent of awareness of associations between symbols and a given product. Figure 1 shows that product and consumer factors influence recognition/learning of product symbolism.

Product Factors: Belk (1981) argued that product uniqueness, variety of choices available, cost of the product, product visibility or conspicuousness, product complexity, and rate of stylistic change associated with the product all influence a user's impression of a product. The greater the uniqueness, variety, cost, social visibility, complexity, and rate

FIGURE 1
An Integrated Model of Product/Consumption Symbolism and Consumer Self-Concept



of stylistic changes associated with the product, the greater the likelihood that consumers will draw inferences from product cues about the image of the product user. However, only the relationship between cost and the tendency to draw inference about personality and social class was supported by Belk's study.

Sirgy, Johar, and Wood (1986) studied the effects of product conspicuousness, product differentiation, and product uniqueness on product value-expressiveness. As expected, their results showed that conspicuousness, differentiation, and uniqueness are positively related to value-expressiveness. So, Belk and Sirgy et al.'s studies suggest that product conspicuousness, uniqueness, differentiation, and cost are directly related to product value-expressiveness or recognition/learning of product symbolism.

Proposition 1: Conspicuous, unique, differentiated, and high cost products are more likely to generate recognition and learning of product symbols than inconspicuous, common, nondifferentiated, and low-cost products.

The theoretical justification for this proposition is as follows. Products that are publicly visible (i.e., socially consumed) are more likely to be associated with these personal characteristics of their users than products which are privately consumed. The social visibility of the product facilitates learning and helps establish *consensual* beliefs regarding the stereotypic image of the product user (Belk 1981; Sirgy et al. 1986). Attribution theory also justifies this proposition (Kelley 1973), arguing as follows: people weigh unique or uncommon events and characteristics heavily when making casual attributions, whereas they discount the social significance of common characteristics. Accordingly, when watching consumers use products directed to the select few (product unique usage), consumer observers can make attributions about the personal characteristics of the product user (Sirgy et al. 1986). These observers can easily draw the inference that the user of a highly differentiated product prefers the differentiated attributes that brand provides (Sirgy et al. 1986). Belk (1981) argued that people attribute different stereotypic images to cosmetic users because many brands are available. He also argued that the cost of the consumption item facilitates inferences about the social status of the product user. The more costly the product, the more it may be perceived as belonging to a person with a higher social status.

Consumer Factors: Belk (1981) also argued that the amount of time and thought that goes into product selection contributes to the learning of product symbolism. That is, the more consumers think about the product, the more likely they will make inferences about the stereotypic image of the generalized user. The results of the study supported this hypothesis, and, accordingly, proposition 2 comes from Belk (1981).

Proposition 2: Consumers who expend more time and thought in selecting a product are more likely to recognize and learn of product symbols than consumers who expend less time and thought.

Hirschman (1985) and McCracken (1988a) refer to specific symbolic content being encoded by product designers and media creative people. Greater exposure to the messages leads to greater ability to decode and recognize the intended symbolism. McCracken and Hirschman both point out the importance of advertising in transferring symbolic meaning to consumer goods. The advertising system transfers meaning to products by linking consumer goods and culturally constituted symbolic meanings in an advertisement.

One component of Hirschman's cultural production system is the communication subsystem, which includes advertising and other communications efforts, such as product rating services. This subsystem provides consumers with information about products and facilitates the transfer of symbolic meaning to products. McCracken identified the fashion system as a method for transferring meaning from the culturally constituted world to consumer goods. As used by McCracken, fashion applies to all goods, not just clothing, that can become culturally obsolete, "out of fashion," before they are functionally useless. Like advertising, the fashion system transfers meanings by linking goods with established cultural categories and principles. The fashion system also invents and transfers meaning through elevated opinion leaders, usually in the upper classes of society, who establish and pass on meaning to others who imitate them. Regardless of the level of symbolism, one may argue that product exposure through advertising and the fashion system facilitates the recognition of product symbolism.

McCracken also recognized that products can be deliberately exploited by consumers for symbolic purposes. He used the example of the feminist movement away from traditional female work attire to the more authoritative style that follows men's fashion (i.e., the female "business suit"). Using product symbolism, these women revealed how they wished to be viewed in the work place. Claiborne and Ozanne (1990) discussed how symbolism was purposefully created in custom made homes, and why these dwellings had special meaning for their owners who had participated in their creation. O'Guinn and Belk (1989) have shown that profane items (e.g., enticing perfume, sexy lingerie) can become symbols

of marital fidelity to deeply religious consumers by encouraging husbands to remain faithful to their wives.

McCracken (1986, 1988b) also recognized that product symbolism can be created through consumption rituals. Ritual has only recently been recognized in consumer research (Rook 1984, 1985; Rook and Levy 1983; Tetreault and Kleine 1990), but it is a powerful way to create product symbolism. For example, Schouten (1991) examined the effect aesthetic plastic surgery had on the self-image of men and women. He discovered that it gave them a sense of completeness and symbolized a new role and a new beginning for them. Wright (1991) examined product usage among adolescents and found they expressed their adulthood through some of the products and services they consumed. Product symbolism in these two instances was intertwined with major life events, and the symbolism inherent in the products consumed acted as surrogate rites of passage. Belk, Wallendorf, and Sherry (1989) discussed how certain forms of ritualistic consumption (such as gift giving) endowed products with sacred status and meaning.

What is suggested here is a phenomenological creation of product symbolism. Consumers don't merely decode symbols, they create meaning that is personal and private. Thus, the oak table in the kitchen is not just a symbol of country living. As the table around which I raised and fed my family, it has sacred, symbolic status (Belk, Wallendorf, and Sherry 1989). The product image is no longer normative but idiographic, no longer cognitive but phenomenological. These two inputs allow for the creation (and recognition/learning) of product symbolism.

In the context of self congruity theory, recognition/learning of product symbolism is the ability to match product images with symbolic meanings.

Proposition 3: Product/self-perceptions are influenced by use/ownership when there is a strong product symbolic recognition.

The Effect of Product/Use Ownership on Product/Self-Perception

A great deal of the early self-concept research focused on establishing that there was indeed a relationship between product image and self-image (see Sirgy 1982 for a literature review). Evans (1968) argued that Birdwell's (1968) study showed product ownership may influence both self-concept and product image, resulting in high self-concept/product-image congruity. Belch and Landon (1977) argued that product ownership influences self-concept measurement. Delozier (1971) and Delozier and Tillman (1972) found that self-concept/product-image congruity increased with the passage of time, which may possibly indicate the influence of product use/ownership on self-concept changes. However, the possibility that the self-image is formed in response to a product image has received little attention in the more recent consumer self-concept literature.

Symbolic product images give meaning to the product by *personifying* it. The product comes to say, "this is the kind of person who would use this product" or "these are the qualities of a person who would use this product." This personification of the product, the product user image, allows for a direct comparison to the self. Hence, the product use and/or ownership can affect product/self-perception. Sirgy (1982) used the following example to illustrate the relationship between product use/ownership and product/self-perceptions. A consumer may attribute his purchase of a pornographic magazine to his strong need for sexual relations. The formation of the self-image 'I need sex' may have been affected by the product user image associated with pornographic magazines. Sirgy explained this relationship using Bem's self-perception theory (1965, 1967). Self-perception theory states that people infer their attitude and dispositions by observing and explaining their behavior.

Proposition 4: The greater the use and/or ownership of a product, the greater the likelihood that the consumer forms self-images that are based on the product user image.

The Moderating Effect of Recognition/Learning of Product Symbolism and Strength of Self Image

Now let us bring back the concept of recognition/learning of product symbolism. How does it fit in the context of the relationship between product use/ownership and product/self-perception? Using self-congruity theory, one can argue that the relationship between product use/ownership and product/self-perception is moderated by the strength of the product image (or what we are calling "recognition/learning of product symbolism"). That is, the extent to which the use and/or ownership of a product influences the formation of self-images is *dependent* on the strength of the product image. More specifically, the relationship between product use/ownership and product/self-perception may be significantly enhanced when the product image is strong. This is because inferences about the self can be made easily when the image of the product user is clear in the consumer's mind. When the consumer feels less certain about the product user image, inferences about the self (as a function of the product user image) becomes difficult.

Furthermore, from the perspective of self-congruity theory, one can argue that the relationship between product use/ownership and product/self-perception is also *moderated* by the strength of the self-image. That is, the extent to which the use and/or ownership of a product influences the formation of self-images is *dependent* on the strength of the self-image. More specifically, the relationship between product use/ownership and product/self-perception is significantly reduced when the self-image is strong. In other words, consumers may be less inclined to use their consumption behaviors as cues about their

identity when their identity is clearly formed. In contrast, consumers whose self-concept is uncertain may be more motivated to use consumption cues to make inferences about their identity.

Solomon (1983) and Wicklund and Gollwitzer (1982) have made similar arguments. Solomon used the term role knowledge to describe the self-related beliefs, expectations, or images one has in a particular social role. Given that the consumer has low role knowledge, s/he is highly receptive to forming self-related beliefs, expectations, or images through product use. The symbolic self-completion theory of Wicklund and Gollwitzer proposes that individuals lacking the indicators of an aspired-to self definition will display other compensating indicators of the same self definition. The self symbolizing occurs when an individual feels "incomplete" in certain areas and compensates by using or displaying other symbols that are socially recognized as representing "completeness." Wicklund and Gollwitzer (1982) successfully predicted that MBA students who lacked certain indicators of business success (e.g., a high GPA, several job offers) would compensate by displaying other indicators of business success, such as expensive suits, watches, or brief cases, or the lack of facial hair. The men and women interviewed by Schouten (1991) overcame their sense of incompleteness through the consumption of aesthetic plastic surgery. For example, one woman completed her sense of womanhood through breast augmentation surgery. These ideas lead to the following proposition.

Proposition 5: Self-perceptions are influenced by product use/ownership when the product has a strong user image and the consumer does not have a well formed self-image.

Belk (1988) suggests that possessions play a much greater role in defining a person's self-concept than previously recognized in consumer research. Following the existential philosophy of Sartre (1943), Belk proposes that possessions play a major role in contributing to and reflecting an individual's identity. According to Belk's interpretation of Sartre's philosophy,

... the only reason we want to have something is to enlarge our sense of self and that the only way we can know who we are is by observing what we have. In other words, having and being are distinct but inseparable. When an object becomes a possession, what were once self and not-self are synthesized and having and being merge.

Thus, according to Sartre, possessions are all important to knowing who we are. People seek, express, confirm, and ascertain a sense of being through what they have (pp. 145-146).

Belk supports this rationale with abundant evidence. He examines the concept of the extended self from several perspectives and demonstrates the importance of several categories of possessions in a person's self-definition. He summarizes his argument by concluding that "we are what we have" and this "may be the most basic and powerful fact of consumer behavior" (p. 160).

Using self-congruity theory, the extended self can be viewed as an outcome of self-concept generalization. Certain self-expectancies are developed, strengthened, and generalized as a function of repeated messages about the self through the use of products (product/self-perceptions).

This expression of the extended self is "dispositional" in that it is stable across products and situations. The "language" of consumption or product symbolism is used only to describe the individual traits of the extended self. Belk speaks of extending the self by *ownership* of products. In like manner we extend the self through symbolically matching the owned product image and some ideal self-image.

Proposition 6: Repeated and frequent product/self-perceptions leads to greater definition of the self in terms of the products used/owned by the individual (the extended self).

The Moderating Effects of Product Constellation and Materialism

It can be argued that extended self-definition depends on the symbolism inherent in the *constellation* of products surrounding the individual and facilitates role playing when the symbolism of the products surrounding the individual parallel the symbolism associated with a given role. A constellation of products is a group of unrelated products that are used by an individual, and contribute to that individual's sense of self. Solomon (1983) introduced the idea of the product constellation, underscored the importance of the proper constellation of products in delivering a satisfactory self-evaluation, and proposed that products with the proper symbolic meaning may be used to facilitate role performance. He later amplified the idea of a product constellation and proposed several categories around which product constellations were formed (Solomon and Assael 1987).

McCracken (1988b) also recognized the importance of a consistent complement of consumer goods in self definition. He used this notion in an empirical study of the North American homes to identify the constellation of products that created "homeyness" and contributed to the homeowner's sense of well being (McCracken 1989). Products contributing to homeyness included gifts, crafts, trophies, mementos, family heirlooms, etc. In another empirical study, Wright (1991) identified another product constellation, including coffee, alcohol, cars, credit cards, newspapers, etc., that symbolized adulthood for middle class adolescents in a small North American town. The idea of a product

constellation is that the more goods with the appropriate symbolic meaning one has, the higher the probability of a satisfactory self-evaluation. Based on these ideas, the following proposition is developed.

Proposition 7: Repeated and frequent product/self-perceptions may lead to greater definition of the self in terms of the products used/owned by the individual *given* that those products are recognized as product constellations.

Although the concept of materialism has been operationalized several different ways (Belk 1984, 1985; Richins and Dawson 1990; Ger and Belk 1990; Richins 1987; Rudmin 1990), it captures the idea that consumer goods and services provide a significant source of satisfaction and dissatisfaction in life. Without the proper constellation of material products, the probability of a satisfactory self-definition through consumption diminishes. Similarly, a materialistic attitude would seem to increase the probability of a successful self-consumption definition, for materialistic individuals may be more likely to use *a priori* product symbolism to define their sense of self. These ideas lead to proposition 8.

Proposition 8: Repeated and frequent product/self-perceptions may lead to greater definition of the self in terms of the products used/owned by the individual *given* that the individual is materialistically-oriented.

CONCLUSION

This paper has integrated concepts and findings in symbolic consumption, product symbolism, and self-concept. The integrated model, based on Sirgy's (1986) self-congruity theory, specifies predictors and determinants of recognition and/or learning of product symbolism, identifies the mediating process in which consumers use product symbolism to define themselves in the context of a specific situation, and posits that outcomes across a constellation of products, across situations, and over time influence the formation and change of the extended self. Future research is needed to test the proposed relationships and further establish and refine reliable/valid measures of the model's constructs.

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New Perspectives in Attitude Research

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ABSTRACT

This paper provides a summary of a special topic session organized to provide new perspectives in attitude research by reformulating old concepts, exploring new aspects, refining the specification of relevant variables, and utilizing more sophisticated methodology. By providing the audience with emerging novel approaches to the study of attitude, this session provides an impetus for making further developments in this important area. The theoretical and practical implications of these approaches are also discussed.

OVERVIEW

Attitude has been an important topic for consumer researchers for several decades. Despite its long history, however, many traditional theories of attitude have remained virtually intact over the years and there is a need for refinements or paradigm shifts (e.g., Bagozzi 1988, 1991; Tesser and Shaffer 1990). In this regard, we can note several conceptual and methodological developments emerging in recent research that challenge past research and provide potentially fruitful ideas for future research. It seems thus useful to have a forum for examining these advances in contemporary research and exploring directions for further development.

The purpose of this special session is to bring together researchers who provide new perspectives in attitude research by reformulating old concepts, exploring new aspects, refining the specification of relevant variables, and utilizing more sophisticated methodology. By providing the audience with perspectives on emerging novel approaches to the study of attitude, this session will provide an impetus for making further developments in this important area.

The four papers in this session reflect a variety of new perspectives on attitude research by challenging, modifying, and extending the traditional research paradigms. The first paper by Bagozzi provides several major challenges to the theory of reasoned action. The theory of reasoned action is modified by addressing the role of enactment processes with particular emphasis placed on cognitive and emotional self-regulatory mechanisms. The modified model is investigated in the context of fast food restaurant patronage and personal weight maintenance. The second paper by Janiszewski challenges the usefulness of the traditional attitude measurement methodology for predicting the potential sales of new products. To refine current methods of assessing consumer attitudes, a non-verbal, non-obtrusive, attention-based method of assessing consumer interest in products is developed with an eye-tracking system.

The next paper by Shavitt and Lowrey examines the interactive role of product type and personality type for attitude functions in advertising

effectiveness. This paper extends the traditional theory of attitude functions by identifying personality and product characteristics associated with particular attitude functions (e.g., DeBono and Packer 1991; Shavitt 1990). It also develops a novel approach to measuring attitude functions. The final paper by Gray and Yi investigates a new way that one can influence consumers' attitudes toward the product. It is claimed that the diagnosticity of product attributes can affect the evaluation of the product by altering the perceived typicality. The diagnosticity of an attribute indicates how useful an attribute is in distinguishing instances from noninstances of the category (e.g., Smith and Gray 1991). It is thus proposed that one can change consumers' attitudes by emphasizing or priming attributes that are highly diagnostic of a product category.

The approach of this session is both theoretical and practical. Each paper provides a thorough discussion of the conceptual framework. Then, practical implications are drawn and tested with data collected for the respective studies. More detailed abstracts of individual papers are attached.

In summary, this session brings together a group of distinguished and emerging scholars with distinct viewpoints, backgrounds, and methodological approaches to studying attitude. The issues are investigated with several moderator variables (e.g., self-efficacy, product type, self-monitoring) in various contexts (e.g., fast food restaurant patronage, advertisements, new product purchase via catalogs, personal weight maintenance). Given substantial importance of this topic to many researchers and practitioners, the issues to be discussed in this session should stimulate interest among a broad range of ACR members. All of the participants have discussed some of the emerging issues in attitude research in a setting designed to spur an active participation from an audience.

ABSTRACTS

Enactment Processes in the Theory of Reasoned Action

Richard P. Bagozzi, University of Michigan

The theory of reasoned action (e.g., Fishbein and Ajzen 1975; Ajzen and Fishbein 1980) has remained remarkably untouched over the long course of its history. Notable developments such as the theory of planned behavior (e.g., Ajzen 1991) have resulted in the addition of variables to the model without altering its core relations among attitudes, subjective norms, and behavior. Consumer researchers have limited enquiry largely to applications of the model and have taken its content and form for granted.

It is argued in this paper that attitudes and subjective norms are not sufficient determinants of intentions, and intentions are not sufficient impetuses for action, as maintained by the theory of reasoned

action. Nevertheless, attitudes, subjective norms, and intentions are essential elements in the explanation of behavior. To deepen the theory of reasoned action, we address the role of enactment processes with particular emphasis placed on cognitive and emotional self-regulatory mechanisms.

The theory of reasoned action says nothing about the conditions under which attitudes affect intentions. After concluding that the relation must be a contingent one to make logical and empirical sense, we discuss three cognitive and two emotional self-regulatory processes which are shown to moderate the relation. The former include self-efficacy, instrumental beliefs, and expectations of success and failure. The latter are conative processes related to wants or desires and emotional responses stemming from outcome-desire appraisals (i.e., outcome-desire conflict, fulfillment, avoidance, or pursuit).

The subjective norm-intention relation, which is also left uninterpreted in the theory of reasoned action, is hypothesized to be governed by cognitive and emotional self-regulatory processes surrounding perspective taking. Following Mead (1934; Joas 1985), we conceive of perspective taking as consisting of the use of symbols and images to bring about in one's own consciousness the expectations and response tendencies of, and emotional relationship to, significant others. Normative influence is then reconceptualized as the integration of one's own and a significant other's perceived expectations and feelings with respect to the shared moral or social meaning of performing a prospective act. When contemplating an action, a decision maker must come to grips with the implications of positive and negative emotions of conforming and not conforming to one's own and significant others' expectations. In a study of fast food restaurant patronage, three different emotions were found to reside in each of four categories formed by the relevant perspective taking cases: deviant other, deviant self, conforming others, and conforming self.

Finally, intentions are shown to be inadequate predictors of behavior, especially for goal-directed behaviors. It is proposed that the intention-behavior relation is predicated on decisions with regard to means, instrumental acts, motivation, and conditions particular to the actor (e.g., abilities, liabilities) or situation (e.g., facilitators, inhibitors). Some of the moderators and mediators are cognitive processes such as judgments of self-efficacy and instrumentalities concerning means, as well as planning, monitoring, and guidance and control activities. Others are emotional or motivational in content such as affect toward means, psychological commitment, and effort. The intention-behavior relation will be addressed from the point of view of a study on personal weight maintenance.

The Eye is Better than an Aye
Chris Janiszewski, University of Florida

Consumer researchers have traditionally used verbal reports to assess the marketplace's attitude toward a product and the likelihood of purchase. These methods have proved to be commercially successful,

especially when researchers have made an effort to achieve correspondence between the measurement instrument and the expected purchase context (Fishbein and Ajzen 1975). Nevertheless, the failure of 9 of 10 product launches suggest the attitude measurement methodologies used to predict the potential sales of new products could use some improvement. The need is particularly salient in industries that continually update a significant percentage of their product lines (e.g., retail apparel, direct mail).

One strategy for improving predictions of the sales potential of new products is to refine current methods of assessing consumer attitudes. For example, Fazio and his colleagues have found that the accessibility of an attitude, measured as reaction time, is a good predictor of the strength of the relationship between the attitude and behavior (Fazio, Powell and Williams 1989). When attitudes are strongly held, consumers make decisions based on information stored in memory and attitude-behavior consistency is high. When attitudes are weakly held, consumers make decisions based on stimulus information, minimizing the influence of stored attitudes. In these situations, stimulus information has a strong influence on behavior, minimizing the relationship between attitude and behavior.

Many new product purchase opportunities are characterized by weakly held attitudes, suggesting measures of stored attitudes may be a poor predictor of the sales potential products. Instead, a measure of the persuasiveness or appeal of the stimulus information is needed. This measure should provide insights into the consumer's interest in the product, as does the stored attitude. In addition, this measure should incorporate a measure of the automaticity of the process, as a parallel to the accessibility measure in standard research.

To accomplish these objectives, a non-verbal, non-obtrusive, attention-based method of assessing consumer interest in products was developed. An eye-tracking system was used to measure attention in a series of products. The primacy, frequency and length of attention to each product on a series of catalog pages was measured to provide indicators of the influence of the stimulus-based information on the consumer's perceptions of the products. When appropriate, these measures were standardized by individual and then each of the measure was correlated with sales data for the products. The correlations between the attention-based measures and sales were significant. In addition, each subject was asked to verbally rate an independent set of comparable products. The correlations between these ratings and sales were significant, but negative.

The findings suggest that when the purchase decision will be based primarily based on stimulus cues, attention-based measures of interest in a product can predict its sales potential. These measures may prove to be useful in industries that continually update a significant percentage of their product lines. The measures may also provide a useful diagnostic for researchers studying decisions that rely on memory-based and stimulus-based cues.

Attitude Functions in Advertising Effectiveness: The Interactive Role of Product Type and Personality Type
 Sharon Shavitt, University of Illinois
 Tina M. Lowrey, University of Illinois

Several studies (e.g., DeBono and Packer 1991; Snyder and DeBono 1985) have shown that individuals who are high versus low in self-monitoring (Snyder 1974) differ in the types of messages they find persuasive: In the product domain, high self-monitors tend to prefer ads that focus on social image concerns, whereas low self-monitors tend to prefer appeals about product quality. These studies suggest that high and low self-monitors differ in the psychological functions their attitudes serve (Katz 1960; Smith, Bruner, and White 1956), such that the product attitudes of low self-monitors tend to serve a *utilitarian* function (maximizing rewards obtained from a product), whereas the product attitudes of high self-monitors tend to serve a *social* function (managing one's public image).

In addition to personality characteristics, research has shown that products differ in the extent to which they are associated with particular attitude functions (Shavitt 1990). For example, products that are intrinsically associated with rewards and punishments (e.g., Aspirin, air conditioners) tend to elicit utilitarian attitudes, whereas product that represent social classifications or reference groups (e.g., wedding rings, flags) tend to elicit social attitudes. Moreover, attitudes toward these different types of products respond to different types of advertisements (i.e., function-relevant appeals).

Based on these findings, we predicted that the effects of self-monitoring on advertising effectiveness should be apparent only for products that can serve different functions for high versus low self-monitors (i.e., products that are associated with both social and utilitarian outcomes). For highly utilitarian products, utilitarian ad appeals should be considered more persuasive by all individuals. However, for "multi-function" products, high self-monitors should prefer social appeals and low self-monitors should prefer utilitarian appeals.

We present two studies that tested this hypothesis with a unique methodology. Past research in this area has measured individual's attitudinal reactions to *completed* messages. In the present studies, individuals were asked to create their own advertisements. The functional content of these ads was subsequently coded by trained judges. Across the studies, our results were consistent. Regardless of their level of self-monitoring, subjects tended to write utilitarian ads for predominantly utilitarian products and social ads for predominantly social products. However, for multi-function products, high and low self-monitors differed as expected in the types of ads they wrote. This pattern became stronger when subjects were explicitly instructed to write ads that they *themselves* would find persuasive (rather than ads designed to appeal to a broad audience). Implications of these findings for the conditions under which personality and product characteristics influence attitude functions and advertising effectiveness are discussed.

The Effects of Attribute Diagnosticity on Attitudes
 Kenneth C. Gray, University of Michigan
 Youjae Yi, University of Michigan

A product can often be perceived as a member of several product categories. For example, a granola bar with chocolate yogurt may be perceived either as a type of candy or as a health food (Loken and Ward 1990). Also, some periodical may be perceived either as a magazine or a newspaper. In such cases, understanding why a product will be perceived as a member of a particular category is important, because different products will be compared in evaluating the given product, depending upon how it is categorized. Prior research suggests that people judge instances of a category to vary in the degree to which they are typical of a category. The typicality of a product will affect how a product is categorized, which will in turn influence evaluations of the product. These suggest that one can influence attitudes toward a product by varying the perceived typicality of the product.

We investigate a particular way that one can influence the perceived typicality of product, and thereby affecting consumers' attitudes toward the product. It is proposed that the diagnosticity of product attributes can affect the evaluation of the product by increasing or decreasing the typicality. The diagnosticity of an attribute indicates how useful an attribute is in distinguishing instances from noninstances of the category (e.g., Smith and Gray 1991). It is thus expected that one can alter consumers' attitudes by emphasizing or priming attributes that are highly diagnostic of a product category.

We present two studies that examine the role of attribute diagnosticity in the context of advertisements. In one study, the diagnosticity of product attributes described in a target ad is manipulated (high versus low). It employs two versions of advertisements emphasizing attributes high or low in diagnosticity on the basis of pretest results. In a second study, subtler, indirect effects of attribute diagnosticity are investigated. Here, the target ad does not contain information about these attributes, but these attributes are primed through seemingly unrelated materials preceding the target ad. The theoretical and practical implications of the findings for understanding the attitude formation process are discussed.

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Attitude Functions in Advertising Effectiveness: The Interactive Role of Product Type and Personality Type

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ABSTRACT

Several studies have shown that high self-monitors tend to prefer ads that focus on social identity concerns, whereas low self-monitors tend to prefer utilitarian appeals. Other studies have shown that products themselves differ in the extent to which they are associated with utilitarian versus social identity functions. Based on these findings, it was hypothesized that differences between high and low self-monitors in their ad preferences would be manifested most strongly for products that can be thought of in terms of both utilitarian and social identity goals. In two studies, high and low self-monitors were asked to create their own advertisements for various products. When advertising multiple function products, high self-monitors preferred to use social identity arguments, whereas low self-monitors preferred to use utilitarian arguments. However, both high and low self-monitors preferred to use utilitarian arguments for advertising utilitarian products, and social identity arguments for social identity products. This pattern became stronger when subjects were explicitly instructed to write ads that they themselves would find persuasive (rather than ads designed to appeal to a general audience). Overall, these results suggest that self-monitoring affects the way in which people perceive certain products, rather than the absolute importance or salience of utilitarian versus social identity features across products.

Several recent studies have shown that individuals who are high versus low in self-monitoring (Snyder, 1974) differ in the types of messages that they find persuasive (DeBono, 1987; DeBono & Harnish, 1988; DeBono & Packer, 1991; Snyder & DeBono, 1985, 1987). In the product domain, low self-monitors tend to be concerned with dimensions related to product quality, such as the taste of a brand of whiskey or the cleaning performance of a shampoo. Thus, advertisements that focus on the inherent qualities and benefits of the product appear to be particularly effective for low self-monitors. High self-monitors, in contrast, tend to be concerned with the self-presentational significance of products, such as the popular or successful image associated with using a certain brand of whiskey, shampoo, etc. Thus, ads that focus on the impressions created by using the product tend to be especially effective for high self-

monitors (DeBono & Packer, 1991; Snyder & DeBono, 1985).

These differences between high and low self-monitors have been obtained repeatedly across a number of products and advertisements (DeBono & Packer, 1991; Snyder & DeBono, 1985, 1987). The impressive consistency in these results suggests that self-monitoring is tapping a fundamental difference in the motives that individuals associate with products. That is, high and low self-monitors may differ in the psychological *functions* that their product attitudes tend to serve (Snyder & DeBono, 1987, 1989).

Functional theories proposed that attitudes serve important psychological functions for individuals, and that attitudes could be classified according to the functions they met (Smith, Bruner, & White, 1956; Katz, 1960; Kelman, 1958, 1961). Various functions have been proposed, but two functional categories in particular seem relevant to the motives that distinguish low versus high self-monitors' product attitudes: *utilitarian* and *social identity* functions. Utilitarian attitudes function to summarize one's positive and negative experiences with objects and to guide behaviors that maximize rewards. Low self-monitors, who tend to be concerned with the qualities and benefits associated with products, seem likely to have product attitudes that serve a utilitarian function. Attitudes can also function to express one's identity and obtain social approval (incorporating the social-adjustment and value-expressive functions that others have proposed). High self-monitors, who tend to be concerned with their public image and social appropriateness, seem likely to have attitudes that serve this social identity function.

In the present studies, we investigated the conditions under which individual differences in self-monitoring would be associated with the sharpest differences in attitude functions. Previous research, involving a number of products and judgment tasks, has consistently demonstrated that high and low self-monitors differ in their focus on utilitarian versus social identity considerations when making their judgments (DeBono & Packer, 1991; Snyder & DeBono, 1985, 1987). One might expect the magnitude of these differences to vary depending on whether a situation or product afforded high and low self-monitors the *opportunity* to focus on different functional goals. When only one goal is salient (e.g., a utilitarian goal of finding an effective headache remedy), systematic differences between high and low self-monitors should not be expected. Both high and low self-monitors would likely focus on the same product dimensions. However, when opportunities to pursue both utilitarian and social identity goals are present, high and low self-monitors should differ in their focus on image versus quality dimensions. In short, we expected the magnitude of the differences as

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a function of self-monitoring to be sensitive to factors that activate the different goals of the high and low self-monitor.

One factor that may determine, or limit, one's opportunities to pursue different goals is the product itself. Products differ in the extent to which they engage particular attitude functions (Shavitt, 1989, 1990). Some products seem to serve *primarily* a single type of goal. For example, an air conditioner serves primarily utilitarian goals of obtaining comfort and relief from heat. Thus, attitudes toward an air conditioner are most likely to serve a utilitarian function, guiding the purchase and use of the product so as to maximize its rewards. In contrast, attitudes toward university banners or decals are most likely to serve *primarily* a social identity function because they are highly expressive of one's identity and can be used to obtain social acceptance. Although there are certainly exceptions and limitations to the links between products and attitude functions (see Shavitt, 1990), it is possible to identify products that are primarily associated with a single attitude function in most contexts.

Importantly, these distinctions between products have implications for the persuasiveness of advertising appeals. For utilitarian products, quality-based appeals tend to be more effective than image-based appeals, whereas the reverse is true for social identity products (Shavitt, 1990).

Of course, many products serve multiple purposes. For example, sunglasses serve both the utilitarian purpose of providing protection from the sun as well as the social identity purpose of self-expression. Thus, sunglasses may elicit attitudes that serve either a utilitarian or a social identity function or both, and effective ads for such products could involve a variety of arguments, including utilitarian and social identity appeals.

The present studies investigate how such product characteristics interact with individual differences in self-monitoring to influence the persuasiveness of image-based versus quality-based ads. We predicted that self-monitoring effects would be manifested more strongly for some product categories than for others. Specifically, to the extent that a product could be thought of in terms of *both* utilitarian and social identity goals (i.e., a multiple function product), high self-monitors should prefer image appeals, whereas low self-monitors should prefer quality appeals. However, when judging the persuasiveness of appeals for products that primarily engage a single function, both high and low self-monitors might prefer appeals that focus on how well the product fulfills that function.

This hypothesis was tested in two separate studies using a unique methodology. Past research in this area has measured individuals' attitudinal reactions to *completed* messages created by the investigators. In the present experiments, subjects were asked to create their own advertisements. We then coded the functional content of these ads. In this manner, subjects were not restricted to considering any particular set of claims. They could present in their

own words whatever arguments they felt would be most persuasive.

STUDY ONE

In the first study, 67 introductory advertising students were asked to write advertisements for three products: The utilitarian product was an air conditioner, the multiple function product was a watch, and the social identity product was a university class ring. Selection of these products was based on previous research, which had established the attitude functions typically associated with these products by our subjects (Shavitt, Han, Kim & Tillman, 1988). Products were presented in counterbalanced order. Subjects were first asked to write a headline and then to write the copy for a fictitious brand of each product.

Instructions emphasized that subjects should not be concerned with the writing style of the ad. Rather, we wanted to know what approach they considered to be the most persuasive. After finishing the first ad, subjects repeated the same procedure for each of the other two products. Subjects found this to be a fairly easy task, taking less than five minutes to write each ad.

Next, for each product, subjects received a printed list of eight product claims from which they were asked to select the *three* they felt would be the most convincing to include in an ad for the product. Each list contained four utilitarian and four social identity claims, as determined by pre-tests. Importantly, each claim was presented in the list for two of the three products. For example, "highest quality workmanship," a utilitarian claim, appeared in the list for both air conditioners and class rings. "Instantly recognizable and always impressive," a social identity claim, appeared in the list for both watches and class rings. Thus, the inherent quality or persuasiveness of the claims was held constant across products.

After selecting the product claims and rating their overall attitudes and degree of interest in each product, subjects filled out the 25-item Self-Monitoring Scale (Snyder, 1974).

Results

Both the headlines and the copy subjects wrote were coded independently by two trained judges into a number of categories, the primary ones being utilitarian and social identity. Utilitarian statements included claims about the product's quality, features, and rewards. Social identity arguments included claims about the product's image, what it symbolizes or communicates to others, and how others feel about the product. In addition, there was a category for headlines or copy that appealed to multiple functions. See Shavitt (1990) for a complete description of the coding categories. Inter-judge agreement was reasonably high (73% agreement on headline classifications and 80% agreement on copy classifications), and disagreements were coded independently by a third judge. The copy was also coded along a 7-point scale indicating the degree to which it focused on utilitarian versus social benefits (1=completely social, 7=completely utilitarian). The

TABLE 1
Study 1: Means for Coding of Copy on Function Scale

	Low S-M (n=22)	High S-M (n=24)	Overall
Air Conditioner:	6.79	6.75	6.77
Watch:	4.75	4.24	4.48
Class Ring:	4.17	3.71	4.02

Note: Judges coded the copy along a 7-pt. scale (1=completely social; 7=completely utilitarian) with a mid-point of 4 (equally social and utilitarian).

average inter-judge correlation for this coding was .70.

In order to be able to detect sensitively the relation between self-monitoring and appeal choice, we chose to do analyses that contrasted the highest and lowest thirds of the self-monitoring distribution. Forty-six subjects were included in these analyses. (Results based on a median-split were similar to comparisons of the more extreme groups, but the significance levels of the self-monitoring effects were typically weaker.)

Many of the headlines could not be confidently coded into any function category because they consisted only of a catchy phrase (e.g., "Time Flies With Avanti") or the brand name (this was true for 67% of high self-monitors' watch headlines). Coding of the copy was more straightforward. Mean copy coding scores along the 7-point function scale are shown in Table 1. (Coding the copy into discrete function categories yielded similar results.) As expected, copy content differed as a function of the product being advertised ($F(2, 70)=52.86; p<.0001$), with air conditioner eliciting the most utilitarian copy. Moreover, both high and low self-monitors wrote utilitarian copy for advertising the air conditioner. In contrast, for watch and class ring, the degree of focus on utilitarian features appeared to differ for high versus low self-monitors. However, the self-monitoring X product interaction was not significant ($F(2, 70)=.89; n.s.$).

For each product, subjects had been asked to select 3 out of a list of 8 product claims (4 utilitarian and 4 social identity) that they would wish to use in their ad (see Table 2). As expected, the types of claims chosen differed as a function of the product being advertised ($F(2, 80)=96.88; p<.0001$). Both high and low self-monitors chose primarily utilitarian claims for advertising the air conditioner and social identity claims for advertising the class ring. More social identity than utilitarian claims were also chosen for advertising the watch (the multiple function product), but self-monitoring appeared to moderate the extent to which this occurred. The self-monitoring X product interaction was not significant ($F(2, 80)=.61; n.s.$), but planned comparisons showed that high self-monitors selected significantly more social identity than utilitarian claims for watches, whereas low self-monitors chose both types of claims equally often.

Additional analyses revealed that high and low self-monitors did not differ in their attitudes or degree of interest in these products.

Discussion

Consistent with previous research (Shavitt, 1990), product type strongly influenced the functional content of subjects' ads. Subjects used mostly quality-based arguments when advertising the utilitarian product, and mostly image-based arguments when advertising the social identity product.

We had also predicted that differences between high and low self-monitors' ads would emerge primarily when advertising a multiple function product (a watch). Indeed, when selecting product claims for use in advertising the watch, high and low self-monitors differed in their focus on quality versus image arguments. High self-monitors preferred image arguments, whereas low self-monitors did not show a clear preference. High and low self-monitors were not found to differ in their liking of these products or in their degree of interest in them. Thus, any differences in the ad arguments that high and low self-monitors selected apparently were not due to differences in their product attitudes.

However, differences as a function of self-monitoring did not emerge reliably for the copy that subjects wrote themselves. Possibly subjects believed they were expected to write ads that would be persuasive for the general population, rather than for themselves personally. In response, they may have written ads that were prototypic of those they had previously seen for these products. If that were the case, one would not necessarily expect differences in self-monitoring to translate into differences in the ads that subjects wrote. In the next study, the instructions were modified to emphasize that subjects should write ads that they themselves would find persuasive. Also, new measures were added to assist in coding the functional meaning of subjects' headlines.

STUDY TWO

A replication was conducted with 62 students from the same advertising class. In order to assess the generalizability of the Study 1 findings, a different set of products was used: The utilitarian product was aspirin, the multiple function product was sunglasses, and the social identity product was a university flag (these are popular items that students attach to their

TABLE 2
Study 1: Mean Number of Utilitarian and Social Identity Product Claims Chosen by Subjects

	<u>Low S-M</u> (n=22)	<u>High S-M</u> (n=24)	<u>Overall</u>
Air Conditioner:			
Utilitarian	2.81*	2.55*	2.67
Social Identity	.19	.45	.32
Watch:			
Utilitarian	1.42	1.10*	1.25
Social Identity	1.58	1.90	1.75
Class Ring:			
Utilitarian	1.15*	1.05*	1.10
Social Identity	1.85	1.95	1.90

Note: Subjects chose three claims out of a list of eight (four utilitarian, four social) to include in their ads.

* Planned comparison indicated the number of utilitarian claims selected by these subjects differed significantly from the number of social identity claims they selected for this product at $p < .05$, one-tailed.

TABLE 3
Study 2: Percentage of Headlines in Each Function Category

	<u>Low S-M</u> (n=20)	<u>High S-M</u> (n=20)
Aspirin:		
Utilitarian	100	95
Social Identity	0	0
Mixed	0	5
Sunglasses:		
Utilitarian	40	25
Social Identity	35	45
Mixed	25	25
School Flag:		
Utilitarian	5	0
Social Identity	90	100
Mixed	0	0

Note: Uncodable headlines are not tabled here.

car or dormitory windows). Selection of these products was based on previous research (Shavitt, et al., 1988; Shavitt, 1990).

The procedure was very similar to that of Study 1, with a few exceptions. Instructions emphasized that subjects should write ads designed to appeal to themselves personally, not to other consumers. After writing all three ads, subjects were asked to write a brief explanation of each headline. This was included to assist in coding the headlines. Subjects in this study were not asked to select product claims to use in ads (as in Study 1). The products in this study differed

from each other too greatly to allow us to generate valid claims that could be shared between products.

Results

Ads were coded in the same manner as in Study 1. When coding the headlines, judges were free to consult subjects' explanations to help interpret them. As a result, the functional meaning of most headlines could readily be coded. (It should be noted that subjects' codings of their headlines yielded a pattern consistent with the judges' coding.) Judges agreed on 79% of their headline classifications and 77% of their

TABLE 4
Study 2: Means for Coding of Copy on Function Scale

	<u>Low S-M</u> (n=20)	<u>High S-M</u> (n=20)	<u>Overall</u>
Aspirin:	6.61	6.60	6.60
Sunglasses*:	4.56	3.78	4.14
School Flag:	3.03	2.18	2.57

NOTE: Judges coded the copy along a 7-pt. scale (1=completely social; 7=completely utilitarian) with a mid-point of 4 (equally social and utilitarian).

* Planned comparison indicated a significant difference between low and high self-monitors for this product ($p < .05$, one-tailed).

copy classifications. On the 7-point functional scale, the average inter-judge correlation was .63.

As in Study 1, analyses were conducted contrasting the lowest and highest thirds of the self-monitoring distribution (N=40 subjects). (Results based on a median-split were very similar.)

As predicted, the functional content of headlines differed strongly for different products (see Table 3). Virtually all of the headlines written by both high and low self-monitors focused on utilitarian features for aspirin and on social identity for the university flag. For the sunglasses (multiple function product), as expected, there was a mixture of headline types, with low self-monitors writing more utilitarian headlines and fewer social identity headlines than high self-monitors. This 2 X 2 pattern, however, was not statistically significant (chi-square=.34, n.s.).

Mean copy coding scores along the 7-point function scale are shown in Table 4. (Coding the copy into discrete functional categories yielded similar results.) As with the headlines, copy content differed as a function of the product being advertised ($F(2, 58)=102.43$; $p < .0001$).

Both high and low self-monitors wrote utilitarian copy for advertising the aspirin and social identity copy for advertising the university flag. In contrast, for the sunglasses, the type of copy written by high versus low self-monitors differed, with high self-monitors writing more social identity copy and low self-monitors writing more utilitarian copy. Although the self-monitoring X product interaction was not significant ($F(2, 58)=1.52$; n.s.), planned comparisons indicated that high and low self-monitors differed significantly in the copy they wrote for sunglasses, but not for the other products (see Table 4).

Additional analyses revealed that high self-monitors rated their attitudes and degree of interest in the products higher than low self-monitors did. This was true for each of the three products.

Discussion

As in Study 1, product type strongly influenced the types of ads that subjects judged to be persuasive. For both headlines and copy, subjects used primarily

quality-based arguments when advertising the utilitarian product, and primarily image-based arguments when advertising the social identity product. Also as predicted, differences between high and low self-monitors' ads emerged most strongly when advertising a multiple function product (sunglasses). For sunglasses, which could be viewed in terms of both utilitarian and social identity goals, high self-monitors tended to write image-based ads, whereas low self-monitors tended to write quality-based ads.

The fact that subjects were explicitly instructed to write ads designed to appeal to themselves increases confidence in our interpretation of these results in terms of the persuasiveness of appeals. That is, subjects' ads apparently reflected differences in what they *personally* would find to be persuasive arguments for purchasing a given product, rather than differences in what they felt would convince others or differences in the ads they had previously seen for the products. Furthermore, our interpretation of subjects' headlines was guided by subjects' own explanations of the functional meaning of what they had written.

In this study, high self-monitors gave more favorable attitude and interest ratings to all of the products. Although it is not clear why high self-monitors would express more favorable views toward aspirin, sunglasses, and university flags than would low self-monitors, it is difficult to see how this could account for the pattern we observed in the types of ads they wrote. Whereas high and low self-monitors' attitude ratings differed for aspirin and university flags, the predominant functional content of high and low self-monitors' ads did not. That is, attitudinal differences did not correspond with functional differences in the persuasiveness of appeals.

GENERAL DISCUSSION

Overall, the present studies suggest that product characteristics interact with individual differences in self-monitoring to influence the persuasiveness of quality-based versus image-based appeals. Across two studies, when designing advertisements for multiple function products, high self-monitors chose to use social identity arguments

to a greater extent and utilitarian arguments to a lesser extent than did low self-monitors. However, high and low self-monitors did not differ in their choice of arguments for advertising other products: Both high and low self-monitors chose to use mostly utilitarian arguments for advertising utilitarian products, and mostly social identity arguments for advertising social identity products.

Our findings are consistent with several previous studies that have shown that high and low self-monitors differ in their focus on utilitarian versus social identity considerations when making product judgments (DeBono & Packer, 1991; Snyder & DeBono, 1985, 1987). However, the results provide some clarification of the role of self-monitoring in the functions served by attitudes toward products. Our findings suggest that high and low self-monitors differ in the way they perceive certain products, rather than in the absolute importance or salience of utilitarian versus social identity features across products. That is, self-monitoring seems to come into play primarily when a product could be thought of in terms of more than one feature or goal, leading people to focus *selectively* on one type of feature versus another.

Thus, when a product offers opportunities to pursue both utilitarian and social identity goals, high self-monitors tend to evaluate the product in image-based terms and low self-monitors tend to evaluate the product in quality-based terms. However, when one function or goal is predominantly salient with respect to a product, high and low self-monitors appear to evaluate the product in similar terms, and judge similar types of arguments to be persuasive for selling the product.

The present findings also provide support for the validity of the product category distinctions we have proposed. Consistent with previous research on the functions that tend to be associated with particular products (Shavitt, 1990), product type strongly influenced the functional content of the ads that subjects wrote. Importantly, we were able to predict *a priori* whether a product would be promoted predominantly based on its value for achieving utilitarian goals, social identity goals, or both. Subjects' responses validated these predictions in most cases. Thus, it appears possible to identify *a priori* those products for which high and low self-monitors' responses should differ the most.

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Nine Consumption Lifestyles
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ABSTRACT

This paper presents an empirical application of behavioral segmentation based not upon isolated brand or category purchase habits but on the collective pattern of a household's purchases across different product/service categories over time. Purchase diary records from 1717 households in the 1986 Consumer Expenditure Survey, capturing a full 88% of total discretionary purchases in 122 product/service categories, were organized in terms of the needs and values reflected in each purchase. After controlling for income, the needs-based expenditure categories were cluster analyzed, yielding nine different consumption lifestyle segments. The distinctive purchasing patterns and demographic profiles of the groups are described. The general utility of this lifestyle approach to segmentation is also considered.

INTRODUCTION

In any given culture there exist various "consumption communities," informal groups expressing shared needs, values, or lifestyles through distinctive consumption patterns (Boorstin 1973). That shared needs support common purchase priorities is reflected in many popular marketing segmentation schemes. Users of social class (Coleman 1983) and family life cycle (Wells and Gubar 1966) assume that shared socio-demographic characteristics imply shared needs and goals, and that product choices reflect those goals. Similarly, lifestyle (Wells 1975) and value-based segmentation schemes such as LOV (Kahle 1983) and VALS (Mitchell 1978) assume that those with shared psychological profiles acquire similar assortments of products for the expression of their values. "Consumption constellations" acquired in the service of social roles (Solomon 1988) further demonstrate the linkage between shared needs and collective consumption patterns.

It can be argued that the study of the collective consumption patterns of groups with shared goals and values is far from complete. In fact, a call for research that identifies a typology of "consumption lifestyles" remains unanswered in the literature (Sheth 1980; Upah and Sudman 1979). Ideally, such a typology would be grounded in actual consumption behaviors rather than the abstracted values, attitudes, interests, or demographics believed to support those behaviors. Moreover, it would concern the total assortment of products purchased over time by a group member, and the overall statement about identity that this collectivity implies.

The present study identifies such a typology from an analysis of the value-based and need-driven purchases made by 1717 panel households responding to the 1986 Consumer Expenditure Survey. Before presenting the results of this cluster analysis, literature regarding the segmentation of consumers into consumption lifestyle groups is first reviewed,

and value-based typologies for the organization of product/service expenditures are considered.

**BEHAVIORAL LIFESTYLE
SEGMENTATION**

Consideration of purchasing as an interrelated, patterned phenomenon was first introduced in the lifestyle segmentation literature (Moore 1963). Before association with cognitive constructs such as interests and opinions, the lifestyle term implied a characteristic pattern of behavior that both determines and is determined by consumption (Anderson and Golden 1984). It stressed the fact that each product purchased is part of a meaningful pattern and that through lifestyle analysis, the interrelated and co-dependent behaviors shared by segment members could be isolated and lifestyle groups identified.

Backward segmentation studies were the first to empirically examine the notion of co-occurring, complementary purchases (Alpert and Gatty 1969; Wells 1967). These early cluster analyses of supermarket purchases demonstrated that purchases do fall into meaningful bundles and that groups of consumers with shared consumption patterns also share demographics, tastes and values such that consumption lifestyle groups can be meaningfully identified.

In the sociology and economics literatures, several studies have attempted to identify groups exhibiting shared consumption patterns. Zablocki and Kanter (1976) used ethnographic data to group consumers according to the sources of identity implied in their patterns of consumption. Four broad consumption communities are proposed: (1) those embracing a hedonistic lifestyle, (2) those rejecting evidences of material success and focusing on consumption of ideas and experiences, (3) those seeking cultural identity through ethnic heritage, and (4) those adopting collective behaviors such as fads or socially-sanctioned identities (e.g., the "Yuppie") to define a sense of self.

A fine example of an empirically-based, behaviorally-driven lifestyle segmentation can be found in the work of Uusitalo (1980). Analyzing share of expenditures for each of seven basic categories (i.e., health, transportation, food, furniture, dwelling, clothing, other), she identifies eight Norwegian "consumption lifestyles." In addition to socio-demographics, these groups vary in dollar allocations for necessities versus discretionary choices, spending on mobility and transportation, and relative "consumption modernity" (i.e., the use of modern, "processed" goods and services).

Douglas and Isherwood (1979) also partitioned consumers into lifestyle groups based on actual expenditure patterns. The three-group solution considers both total spending levels and the targets of those expenditures. These include: (1) a small-scale

expenditure group with a high proportion of dollars allocated to food, (2) a medium scale group with disproportionate spending on advanced consumer technology, and (3) a large-scale group with a high proportion of total expenditures on entertainment and information systems.

Each of these behavior-based lifestyle analyses has been limited by a focus on total expenditures without controls for income. As a result, low/medium/high expenditure groups generally dominate the solutions. In addition, little theoretical justification has been offered for the product and service categories chosen. Typically, available functional category codes such as food and housing are used to collapse expenditure information, restricting the types of insights that are offered. It is suggested that a lifestyle scheme that takes advantage of the richness of the values construct and its conceptual link to behaviors, while not losing the advantage of the validity of the behavioral measures themselves, will add such richness and insight. The cluster analysis that follows takes this approach.

A CONSUMPTION LIFESTYLES SEGMENTATION STUDY

Product/Service Categorization Schemes

A call for a needs-based categorization scheme for consumer products and services has been raised in the literature (Sheth 1980). Such a scheme would provide insight into consumer purchase motivations and allow inferences about the values that structure those motivations, thus providing a meaningful framework for analysis of collective consumption patterns. By classifying products/services in terms of the needs and values they imply, and then clustering people on their purchase patterns in relation to those categories, a rich and valid typology of consumption lifestyles emerges.

Several researchers have indirectly attempted product categorization along these lines. Csikszentmihalyi and Rochberg-Halton (1981) studied people's special possessions in terms of the meanings they held for their owners and found that products could be grouped according to the basic values they satisfy. Prentice (1987) had subjects classify favorite possessions into groups reflecting their similarities as sources of value to their owners; based on these data, she developed a four-dimensional solution for favorite possessions, including self-expressive/instrumental, recreational/practical, cultured/everyday, and prestigious/common dimensions. More directly, Settle and Alreck (1989) suggest classifying all consumer products, not just special possessions, according to the needs and values fulfilled through their purchase and usage. The authors propose their own list of fifteen needs categories for this purpose.

The categorization scheme used in the current exercise incorporates the above-mentioned research while building from an existing values framework (White 1951). By categorizing the values evidenced in a wide-variety of written and verbal materials collected over an eight-year period (e.g.,

autobiographies, TAT records, children's stories, ads, psychoanalytic records, speeches), White identified seven basic needs and 14 sub-categories believed to capture "the all-pervasive values that people in our culture talk about when they say they want something" (p.11). The categories include: (1) egoistic needs, including achievement/recognition and dominance/control, (2) need for play, including desires for experience and excitement, beauty, and creativity, (3) need for practicality, (4) need for cognition and knowledge, (5) morality, as reflected in legal and religious codes, (6) physiological needs, including food and health, safety and security, physical comfort, and cleanliness and (7) social needs, including appearance and belonging.

Product/Service Expenditure Categorization Task

Preliminary tests supported the selection of White's scheme over other typologies offered in the literature. Three judges more readily and reliably classified products into White's value categories (83% of products classified with 73% interjudge agreement) than they did using Settle and Alreck's groups (80% classification; 67% agreement) or the categories of Rokeach (65% classification; 65% agreement) and LOV (70% classification; 68% agreement).

Several revisions to White's original scheme were made in order to increase its relevance to the consumption setting. First, pretest diagnostics suggested a split of the practicality need into two categories: functionality and convenience. Segmentation studies in the economics area supported the addition of a separate category for housing expenses. Lastly, other value schemes highlighted two important but missing social needs, namely conformity and nurturance. This resulted in 18 need/value groups for classification and analysis.

One hundred thirty-two product and service expenditure categories were classified into the 18 need/value groups for purposes of this study. The assignment of products/services to the need/value categories was determined by a panel of ten "expert judges," i.e. students and faculty in the marketing and sociology fields familiar with the values literature. First, each of the need/value categories was discussed with the judges as cards summarizing abbreviated definitions were systematically arranged on a table. The judge was then provided with a stack of randomized cards on which the names of the 132 product/service categories were printed. Judges were instructed to "consider the predominant purchase motivation behind consumer acquisition of that particular product or service" and to classify it into one of the need/value categories accordingly. Beyond the 18 categories mentioned above, a "don't know/product ambiguous" category and "multiple needs/no one need dominant" group were also available to improve the reliability and accuracy of classification decisions.

Retained for study were those products for which a dominant need/value group was identified. It was arbitrarily decided that majority (i.e. greater than 50%) interjudge classification agreement would

satisfy the criterion of dominance. Ten products were eliminated because of ambiguity, leaving 122 products classified reliably into 18 needs-values categories for analysis. Percentage agreement between judges for the sorting task was calculated at 72%, a result which compares favorably with other studies in which stimuli have been classified along complex value or need lines (Pollay 1983). A list of the final need/value categories and a sample of consumer products assigned to each is provided in Table 1.

The Data

Data for the empirical portion of this paper are from the 1986 Consumer Expenditure Survey (CES), a public domain data set that contains a rich collection of household expenditure and demographic information. Adhering to strict sampling and data collection guidelines set by the U.S. Census Bureau, the survey is considered representative of U.S. households and is used by the Department of Labor's Bureau of Labor Statistics (BLS) to estimate the consumer price index. BLS estimates that 90-95% of total yearly household expenditures are captured in survey panel member diaries.

The CES expenditure data is in diary format; on a quarterly basis, each household reports the dollar amount of expenditures in each of 528 possible categories. As a data management technique for the present study, several expenditure categories were aggregated into comprehensive, non-redundant variables (e.g., six floor coverings were collapsed to form a "carpet" category). Other variables were excluded in light of their savings or investment nature. This left 132 expenditure categories, capturing 88% of the expenditures reported by CES, for the previously-described product classification task.

To remove the effects of seasonality and to maximize the probability of purchase incidence in low frequency categories, only households with purchase data for a contiguous 12-month period were used in the present analysis. This reduced the sample from 21,466 interviews to 6868 interviews within 1717 households.

In order to remove the effects of income from the analysis, to reduce effects of range variability across categories, and to encourage solutions beyond low/medium/high expenditure groups, two transformations were performed on the data. Each category expense was first expressed in terms of its share of total household expenditures; these percentage allocations were then normalized.

Cluster Methodology

One-hundred seven multivariate outliers, arbitrarily defined as those remaining "ungrouped" after 75% of total agglomerations, were first removed from the analysis in light of their potential biasing effects. The remaining sample of 1610 households was randomly split to allow a reliability assessment of the final cluster solution.

A two-stage approach to clustering was selected (Punj and Stewart 1983). Initial solutions, identified using Ward's hierarchical method with squared Euclidean distance as a measure of similarity, provided

a preliminary indication of the total number of clusters and identified expenditure category variables that did not discriminate effectively among the groups. As a result of the first phase, the nine cluster solution was chosen and three expenditure categories (i.e., conformity, cleanliness and control) were excluded. The final cluster solution was identified using the Quick Cluster K-Means procedure.

FINDINGS

In this section, profiles of the nine consumption lifestyle clusters are presented. Each group has been assigned a label to reflect the central theme governing its unique value-related spending pattern. Despite the fact that the clustering was determined on the basis of normalized proportionate spending patterns, marked discrimination between the groups in terms of socio-demographic characteristics is also evident. Admitting within-group variation on age, income, social class and family life-cycle, the groups do nonetheless display dominant demographic profiles that effectively distinguish them from other groups. These differences are also highlighted in the profiles that follow. Average spending patterns, in terms of both absolute dollars and shares, are presented in Table II; Table III summarizes key socio-demographic characteristics of the clusters.

Functionalists

True to their name, the Functionalists spend most of their money on essentials necessary for practical and efficient operation of the household, allocating a full 39% of their dollars to items such as household appliances, tools, cookware, window blinds, glassware, dishes and linens (versus 15% of dollars on functional needs for the sample as a whole). This "mainstream" group of average educated, average income, largely blue collar workers possesses life-stage characteristics one would expect to be associated with investment in household amenities; the group is mainly comprised of young (33% less than 35 years of age as compared to 23% on average) and middle-aged (37% are 35-54) dual-earning couples (78% married versus 62% for other groups' average; 65% two earners versus 47% on average) in the full nest stage (45% in full nest versus 29% on average; 50% have kids versus 37% on average).

Nurturers

The second group has been labeled the Nurturers. Also predominantly in the Full Nest stage of the FLC (47% versus 29% on average), expenditure patterns in this group are governed by child-rearing concerns and family values. Almost one-in-five dollars (18.3%) are spent on nurturance needs as compared to only 2.9% for the total sample on average. It appears that household start-up expenses have been completed or perhaps postponed, as expenses in the functional category among this group are the second lowest in the sample (8.7% versus 14.8% on average). Nurturers are younger than the Functionalists (52% under 35 years of age versus 33% for Functionalists), perhaps in initial stages of household formation. Nurturer households are largely

TABLE 1
Consumption Need/Value Categories

<u>Category</u>	<u>Description</u>	<u>Examples of Products/Services</u>
Appearance	Concern with looks, face, being "beautiful," physical strength	Clothing, watches and jewelry, wigs, hair care products and services, personal care appliances, health club memberships
Beauty/ Aesthetics	Pleasure in sight; Beauty in physical objects	Artwork, paint and paper, curtains, slipcovers, rugs, china, aesthetic home improvements
Belonging	Being approved, liked, accepted; attaining group unity/identity	Monthly telephone charges; campers trailers, hunting and fishing gear; country/tennis/social clubs; beer, wine, and liquor
Cleanliness/ Orderliness	Concern with the absence of dirt and smells; desire for order/ neatness	Garbage collection fees; cleaning equipment, supplies, and charges; closet and storage organizers; dry cleaning; maid service
Comfort	Bodily pleasures/satisfaction; return of the body to homeostatic state	Bed and other linens; mattresses; air conditioning, heat/ portable heating/cooling systems; cigarettes; jackets and coats; blankets
Conformity	Fitting in, obeying laws	Uniforms; car registration fees, licensing fees, inspection fees
Control/ Power	Management of/or power over people/environment	Power tools; insect and pest control; answering machines
Convenience	Efficient meeting of needs; satisfying needs in less time	Dishwashers, disposals, washers and dryers, microwaves; record and book clubs; calculators; convenience store purchases
Creativity	"Making things," making statements of uniqueness of self	Sewing materials, supplies, sewing machines; landscaping supplies; musical instruments; camera equipment and photo supplies
Fun/ Entertainment	Desire for fun, good times, activity, experience	Cable TV, movie rentals, VCR's, video cameras, stereos, sports equipment, toys/games, tickets to sporting events, dining out
Functionality	Adapting means to ends; something useful, effective, necessary, purposeful	Transportation expenses, general repair/maintenance charges, luggage, dinner and glassware, towels, roofing and gutters,blinds, clocks, lamps, stoves, refrigerators, tools
Housing	Basic housing	Rent, taxes, mortgage
Knowledge	Sources of information, learning aids	Radios, newspapers, magazines, books, tuition, computers
Morality	Reflection of right and wrong	Contributions to church, charity, educational institutions; alimony, child support
Nurturance	To give comfort, support to others	Plants, babysitting services, care for elderly/invalids, children's clothing, pets and pet services
Security	Peace of mind, stability, permanence	Personal, fire, homeowner's, and car insurance; safe deposit boxes; smoke alarms, cemetery plots
Status	Statement of rank, success, prestige, or superiority over others	Vacation homes and related expenses, silver serving pieces, housekeeping/gardening services, new cars, theater, concert, or opera tickets
Survival	Satisfaction of basic physiological needs	Food and beverages; plumbing, heating, and electrical service; water and sewage

TABLE 2
Value-Based Expenditure Patterns of the Clusters

	Functionalists	Nurturers	Aspirers	Experientials	Succeeders	Moral Minority	Golden Years	Sustainers	Subsisters	Total Sample
Percent of Total	12.7	4.8	8.1	23.8	5.2	5.5	3.2	22.5	14.2	
				Percentage Allocation						
Survival	19.0	26.5	14.3	21.4	18.6	22.4	26.2	44.6	29.0	27.1
Housing	9.6	13.6	9.6	15.6	13.1	12.9	12.3	6.9	36.4	14.9
Functionality	39.0	8.7	8.8	12.6	14.0	15.3	11.6	12.1	7.7	14.8
Entertainment	4.6	5.2	5.0	9.2	7.1	5.2	6.1	4.1	4.3	5.8
Security	3.7	3.7	3.4	5.1	3.8	4.9	6.5	5.6	1.5	4.3
Status	0.6	0.9	3.4	1.4	3.5	3.1	2.3	0.7	0.8	4.1
Belonging	2.9	3.7	2.3	3.9	3.8	3.7	3.3	4.5	4.0	3.7
Nurturance	2.5	18.3	1.7	2.3	3.3	1.9	3.5	1.6	1.8	2.9
Appearance	1.7	2.1	2.3	3.3	3.8	3.0	2.9	2.6	1.6	2.6
Aesthetics	1.5	1.5	1.7	1.9	1.6	2.0	20.0	1.7	0.6	2.1
Comfort	1.2	1.3	1.3	1.7	0.7	1.2	1.9	3.4	2.1	2.0
Convenience	1.3	1.4	1.2	3.1	1.7	1.9	2.3	0.9	0.9	1.7
Morality	1.4	1.0	0.9	1.1	0.8	12.8	2.1	1.0	0.5	1.7
Knowledge	1.0	0.7	0.9	1.2	7.6	1.3	1.3	1.0	0.8	1.4
Creativity	0.2	0.3	0.1	0.6	0.5	0.5	0.2	0.2	0.1	0.3
				Dollar Allocation						
Survival	5,052	4,942	5,292	4,706	6,195	4,623	5,791	5,657	3,196	4,916
Housing	2,912	3,123	3,689	3,629	4,029	3,730	3,909	971	4,387	3,064
Functionality	11,770	1,844	3,337	3,085	5,147	4,041	3,503	1,737	1,177	3,747
Entertainment	1,445	1,076	1,876	1,976	2,105	1,366	1,895	597	578	1,319
Security	1,126	867	1,308	1,203	1,453	1,365	1,552	792	265	993
Status	314	195	12,823	507	1,839	975	972	129	211	1,452
Belonging	829	785	890	856	1,195	878	905	563	473	752
Nurturance	874	3,473	668	679	1,427	631	1,104	261	292	739
Appearance	524	420	932	844	1,407	818	790	388	214	624
Aesthetics	480	394	642	556	593	507	5,518	255	109	571
Comfort	319	286	494	353	294	299	595	441	238	362
Convenience	428	305	495	732	602	555	602	130	116	410
Morality	426	183	395	279	360	3,158	640	153	55	415
Knowledge	360	172	344	285	2,511	331	382	136	106	356
Creativity	65	48	58	146	168	151	48	22	17	76
Total \$ Expenditure	26,924	18,113	33,243	19,836	29,325	23,428	28,206	12,232	11,434	19,796
CES Total Expenditure	27,117	18,276	33,422	20,036	29,566	23,668	28,460	12,356	11,504	22,712
# of Categories Purchased	49	48	52	51	61	52	54	31	22	43

TABLE 3
Socio-Demographic Characteristics of the Clusters

	Functionalists	Numbers	Aspirers	Experien- tials	Succeeders	Minority	Golden Years	Sustainers	Subsisters	Total Sample
Income before Tax	28,632	19,569	35,946	32,048	42,779	39,558	38,129	14,909	12,573	25,875
% under \$7,000	14	11	3	11	7	5	4	27	38	17
\$7,000 - \$14,999	12	18	9	13	10	19	4	32	23	18
\$15,000 - \$34,999	40	40	31	32	20	23	40	25	22	29
\$35,000 - \$54,999	22	18	31	25	20	28	20	6	6	18
over \$55,000	11	3	19	15	42	23	28	3	2	12
One earner	27	34	29	43	19	42	20	21	31	31
Two earner	65	50	65	45	74	44	44	38	31	47
No earner	8	16	6	11	7	14	36	41	38	22
Average Age	46	44	45	46	45	54	54	59	50	50
18 - 34	33	52	33	25	20	9	20	10	26	23
35 - 54	37	24	41	45	59	38	32	26	35	37
55 - 64	14	5	13	16	15	30	12	20	15	16
65 +	16	18	14	14	7	23	36	44	24	23
Ave. Household Size	3.22	3.21	2.81	2.59	3.32	2.32	2.76	2.78	2.41	2.80
% H/W only	23	18	28	22	12	30	36	29	11	23
H/W w/kids	50	48	44	37	58	31	44	32	19	37
Single parents	6	13	5	5	0	0	0	4	13	6
Singles	14	16	16	32	21	30	16	19	41	25
% Married	78	66	75	61	73	63	80	63	31	62
Div/Seg/Wid	14	22	12	21	7	18	16	31	46	24
Never Married	8	13	13	19	20	19	4	6	22	14
% Lower Class	14	13	3	12	7	5	8	30	38	19
Working Class	36	26	13	22	12	33	36	45	31	30
Middle Class	31	45	48	39	24	30	20	18	19	30
Upper Middle Class	12	16	33	20	37	19	20	5	10	16
Upper Class	7	0	3	8	20	14	16	2	2	6
% Bachelors	6	11	8	16	20	2	4	3	18	10
Newly Married	10	0	11	7	7	5	8	2	1	5
Full Nest	45	47	28	31	39	18	40	22	17	29
Empty Nest	20	14	36	20	24	37	32	31	9	23
Sole Survivor	6	8	6	7	4	7	12	15	19	10
% White	90	84	86	90	90	93	96	80	71	85
% White Collar	40	47	63	52	56	49	36	16	28	39
Blue Collar	31	24	25	21	17	26	20	23	22	23
Retired	13	11	8	14	5	16	40	36	22	20
% Less than HS	23	29	11	20	2	12	32	47	38	28
HS Graduate	55	39	48	46	32	63	40	40	51	46
College	22	32	41	34	66	26	28	12	11	26

middle class (45% versus 30% on average); the heads of these households are more likely than average to be highly educated persons (32% graduated from college versus 26% on average) with white collar jobs (47% versus 39% for the total sample). Interestingly, the group is characterized by lower-than-average income levels (\$19,569 vs \$25,875 on average), largely reflective of the one-earner status child-rearing duties have commanded for a third of these households.

Aspirers

This group has been labelled in light of its overwhelming status-seeking purchase behaviors. Spending a full 34.6% of their total dollars on status-related goods and services (versus only 3.9% on average), this group claims an average yearly status expense of \$12,823 (versus \$1,451 for total sample). Providing further evidence of "enjoying the high life" through excess consumption, members of this group report comparatively high spending on (status) housing accommodations (\$3,689 versus \$3,064 on average), (privileged) entertainment needs (\$1,876 versus \$1,319 on average), and (expensive gourmet) foods (\$5,292 on survival needs versus \$4,916 on average). While Aspirers have the income to support their habits (\$35,946 before-tax income versus \$25,875 for the total sample), their rank within the sample as only fourth-highest in earnings stands in sharp contrast to their #1 rank in total expenditures.

The Aspirers possess all the stereotypical "Yuppie" characteristics. Beyond the high incomes mentioned above, group members are highly educated (41% versus 26% have graduated from college) and hold the greatest proportion of white collar positions in the sample (63% versus 39%). The majority have attained middle (48%) or upper-middle (33%) social class standing. Many of these consumers are DINKS: married (75%), dual-earner households (65%) with no children (2.8 HH size; 28% from husband/wife pairs with no kids).

Experientials

This group's distinctive spending characteristic is a disproportionate allocation of dollars to entertainment needs (9.2% versus 5.8% on average) and hobbies (.6% versus .3% on average). Experientials also spend disproportionately in the appearance category (3.3% versus 2.5% on average; \$844 versus \$624 on average). These fun-lovers appear to exhibit active, "on-the-go" lifestyles, overspending on convenience-oriented products (3.1% versus 1.7% in total) that perhaps save time for things they hold to be more important i.e., having fun.

The Experiential group is disproportionately comprised of singles (32% versus 25% on average; 43% single-earner HH versus 31% on average). Possessing only average educational credentials, members of the group nevertheless hold white collar jobs (52% versus 39% in total) and earn incomes that are more than capable of supporting their vast entertainment needs (\$32,048 versus \$25,875 on average).

Succeeders

A group of established households, labelled Succeeders, was also identified. Middle-aged members of this cluster (59% are 35-54 compared to 37% for the total sample) possess by far the highest educational credentials in the sample (66% graduated college as compared to 26% for the total, and as compared to 41% and 34%, respectively, for the Aspirers and the Experientials). Their tendency toward dual-earner status (74% versus 47% for total sample, 65% for Aspirers, and 45% for Experientials) in white collar jobs (56%) commands for them the highest household income levels of any group in the sample; on average, Succeeders earn a full \$42,779.

And Succeeders spend their money, claiming the highest absolute dollar expenditures in 12 of the 15 value categories. They also report purchases in 61 of the product categories measured, as compared to only 43 on average. Besides this difference in pure volume, a distinguishing feature of the Succeeder is disproportionate spending on knowledge, education and self-advancement (7.6% of total expenditures versus 1.4% on average). In addition, Succeeders invest in their work-world appearances, overspending on self-enhancement needs (3.8% of total expenditures versus 2.6% on average; over twice the average dollar amount, \$1407 versus \$624 on average).

The Moral Minority

The only distinguishing feature of the Moral Minority is their disproportionate donations to educational organizations, political causes and the church (12.8% of total expenditures versus other groups' average of 1.7%). Moral Minority households contain a disproportionate share of husband/wife pairs in the Empty Nest phase (37% versus 23% on average). Members of this group command the second-highest levels of income in the sample (\$39,558) while maintaining traditional husband/wife roles (42% single earners versus 31% on average, the highest percentage of single earners in the sample).

The Golden Years

Golden Years' spending patterns suggest the establishment of second homes or the long-awaited remodeling of original homes; despite their ages (average age 54; 36% over 65 years of age), group members claim the third highest spending levels for housing (\$3,909 versus \$3,064), report heavy investments in aesthetic improvements to the home (a full 20% of expenses are devoted to this need versus only 2.1% on average), and are investing disproportionately in labor-saving conveniences (2.3% versus 1.7% on average). True to their name, the Golden Years also spend the greatest amount on products that provide physical comforts (\$595 versus \$362) and entertainment value (\$1,895 versus \$1,319). In line with their demographics, they also invest in a variety of insurance policies that yield for them emotional security in facing the uncertainties of old age (6.5% on the security need versus 4.3% for the sample on average).

Income levels are exceedingly high in this group (\$38,129), second only to Succeeders and Moral Minority members. Much of their money appears to be from pension funds and investments, however, as 36% of the households report no-earner status and 40% are retired.

Sustainers

In sharp contrast to the Golden Years is a group of mature consumers (59 years of age on average; 44% over 65; 41% retired) labeled the Sustainers. Members of this group devote a full 45% of their total dollars (versus 27% on average) to basic survival needs such as food, electricity, heat and water. This group also spends a higher than average amount in absolute dollar terms on expenses in this category, perhaps reflecting use of more expensive inner-city outlets and high consumption of convenience foods (i.e., "the poor pay more"). Higher than average allocations are also reported in the belonging category (4.5% versus 3.7% for total sample), largely due to alcohol-related expenses. The Sustainers' fate appears largely constrained by economic circumstance. The group exhibits the lowest education levels (47% did not graduate from high school), the second lowest income levels (\$14,909 on average), and the lowest social class rankings (75% occupy the bottom two classes) in the sample. Forty percent of the households have no earners.

Subsisters

Subsisters report the lowest expenditures of any group across all 18 need categories. The group is best described as being "house poor;" over one-third (36%) of Subsisters' total expenditures is devoted to housing, which compares markedly to a total sample average of 14.8%. Spending patterns in this group are clearly a function of socio-economic factors. Subsisters report the lowest household income levels (\$12,573; 38% with incomes under \$7,000), the second lowest education levels (38% less than high school), and the highest percentage of unemployed (22% versus 11% on average). A large percentage of these households live on welfare (38% have no salaried earners yet report income from other sources). A sizeable minority are single-earner families (31%) and single parents (13%), and a disproportionate number have minority racial status (29% versus 16% for total sample).

VALIDATION

Replicability of the final solution was tested using a holdout sample of 823 households. The solution was replicated in terms of both need/value and demographic profiles. The solution's predictive validity was assessed via regression analysis using FLC, social class and income as additional predictor variables. The cluster solution alone accounts for 29% of the variance in total expenditures and uniquely contributes 7% to the total variance explained when FLC, social class and income are in the model (significant at $p < .001$).

DISCUSSION

The results of this analysis suggest that value-related consumption patterns can be identified and that these patterns reflect more than a simple manifestation of age and income effects. While the transformation of the data into normalized percentage allocations among the value-based categories successfully attenuated income effects in the final solution, it is recognized that income nevertheless exerts some influence through variability in discretionary dollars (e.g., the percent allocated to food decreases when dollars increase). However, the regression results suggest that consumption lifestyles reveal patterns of motivation that are not captured when the focus is on the more income-privileged aspects of choice indicated through social class and income classifications, or on the evolutionary nature of needs reflected in life-cycle schemes. The fact that such strong demographic differences emerge despite controls and in solutions defined not on demographics but on value-related consumption patterns is strong testament to the continued significance of life course, income and social class variables in shaping consumer behavior.

These arguments support the utility of other value-based consumption typologies. In fact, numerous parallels between the consumption lifestyles solution presented here and the VALS typology can be drawn (e.g., Succeeders = Achievers, Aspirers = Emulators). However, several comparative advantages of the present solution can be cited. Importantly, the present scheme has been driven by actual, value-based dollar expenditures rather than abstracted, consumption-irrelevant values (e.g., "Marijuana should be legalized). Additionally, the present scheme represents members from a broad spectrum of ages, capturing each lifestyle adequately, while VALS disproportionately weights older consumer groups in its solution. A test of the predictive validity and explanatory power of a consumption lifestyle scheme such as this versus more traditional value-based schemes such as VALS or LOV could demonstrate the power of behaviorally-based value analyses, perhaps revitalizing interest in value segmentation as a marketing tool.

A final point regarding the coding of products and services into value groups deserves mention. The current procedure used expert judges to classify products and services into 18 theoretically-derived value groups and then applied an arbitrary criterion (50% agreement) to assign codes. This strategy resulted in a strong level of interjudge agreement as compared to previously-reported value classification exercises. Regardless, the procedure does ignore that fact that a given product may address multiple needs by displaying strong secondary value themes or by tapping different values for different consumers, values perhaps overlooked in theoretically-derived coding schemes such as the one used here. To control this source of error, future investigations might consider restricting analysis to products with strong, singular value themes. In addition, having consumers define and derive relevant value categories appears warranted.

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Consumption Choice Within the Black Extended Family Network

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INTRODUCTION

Family decision making has long been recognized as an important component of consumer behavior. The first Association for Consumer Research - Household Consumption Behavior Session (Burns and Gentry 1988) uncovered several topic areas which are needed to further develop knowledge in household theory. One such area is subcultural influence on family consumption choice.

Subcultural influences have also been identified as an intervening variable in family decision making by Buss and Schaninger (1984). Penalzoa and Gilly (1986) have suggested frameworks for studying Hispanic families. O'Guinn, Faber and Imperia (1986) have found that family decision making of Hispanics differs from that of whites.

Another major subcultural group is the black market. In 1990, there were 31 million blacks, comprising over 12 per cent of the U.S. population. In spite of this market presence, few studies in consumer research (Baran 1986; Wilkes 1971) have been done on black family consumption choice processes. Other disciplines, such as sociology and anthropology, have extensively discussed and debated approaches to the study of black families, black family structure and behavior, and black family consumption choice.

This paper offers suggestions to fill this gap in the consumer research literature. This paper: (1) describes the controversy over the structure and behavior of the black family; (2) reviews the interdisciplinary literature on black family structure and black family decision making, to (3) develop propositions concerning black family consumption choice; (4) suggests methodologies to test the propositions; and (5) discusses the contribution of the framework for the black extended family network to family research.

BLACK FAMILIES: THE CONTROVERSY OVER THE MATRIARCHAL MARKET

The structure and behavior of black families, as viewed by practitioners and academicians from a variety of disciplines, is that of a matriarchy. The description of Afro-American society as a matriarchy was first developed by Frazier (1939), who proposed that the U. S. black family evolved as a result of slavery and blacks' subsequent history in the United States. Frazier painted a picture of broken families, ineffectual or absent fathers, and a matriarchal system. This view was reinforced by Moynihan (1965), who felt that the instability of the black family was the cause of problems in the black community. That is, the black family exhibits traits which are dysfunctional and deviant from the norm. The concept of the black matriarchy has been and still is adopted by some marketers (Bauer and Cunningham 1970; Taylor 1982).

In the 1970's, scholars in various fields began to react against Frazier's conceptualization of the black family (Allen 1978a and 1978b; Mathis 1978; Nobles 1978; Willie and Greenblatt 1978). Some scholars (Nobles 1978; Scanzoni 1971; Staples 1976) proposed that black families were victimized by economic and racial discrimination. If given the same economic conditions, black families and white families are equivalent (Liebow 1966; Mack 1971; Rodman 1963; Scanzoni 1971; Willie 1974). Others argued that the unique aspects of black family life must be taken into account (Allen 1978a and 1978b). By focusing on the stereotypical matriarchal figure, the interactions among other family members are ignored. In this paper, we examine the black family as a network of interactions. The key to understanding this network of interactions is the adoption of a cultural variant perspective.

We use Johnson's (1988) criterion of a cultural variant study, i. e. "... white middle class norms are not the primary referent and Black cultural patterns are primarily explained by use of Black values and experiences" (p. 95). The need for a cultural variant perspective stems from the fact that "black and white families exist in different social and cultural environments, and as a result they differ in both structure and way of functioning..." (Allen, 1978a, p. 125-6).

PRINCIPLES UNDERLYING A CULTURAL VARIANT PERSPECTIVE TO THE STUDY OF BLACK FAMILY STRUCTURE

Our cultural variant perspective is based on two guiding principles. These assumptions are (1) the extended family, rather than the nuclear family, is the black family structural norm; and (2) interaction between family members can be best understood in the context of mutual exchange, rather than power and conflict resolution.

Black Family Structure: The Nuclear vs. Extended Family

Approaches to the study of the black family which do not use a cultural variant perspective assume that the structural norm for all families must be the nuclear family. The cultural variant perspective reaches a different conclusion; that the norm for black families derives from African family structure. "[I]n African societies the conjugal unit (the African counterpart to the nuclear family) is subordinate to the consanguineal kinship group" (Foster 1983, p. 214). The family consists of both lineage (relations based on descent) and marriage, forming an extended family. In addition, the extended family network may include "adopted" members. McAdoo (1980) found that 70 per cent of the black mothers surveyed had "fictive kin" as children; 71 per cent of those relationships had continued into adulthood.

Sudakarsa (1980) and Martin and Martin (1978) emphasize that the black extended family is not a collection of nuclear families. "[I]n many cases, single family households are only part of larger family structures" (Sudakarsa 1975). Even in what appears to be a nuclear family, "there is a greater likelihood of black two-parent families to interact with extended family than their white counterparts" (Wilson 1986, p. 254). In addition, what appears to be a "broken home" may only be a component of an extended family.

Only by considering the extended family in its entirety can black family structure be understood. Because black subculture has a broader notion of family than mainstream white culture, the term "family" must include the notion of kin living at different residences, which we designate the "extended family network". In this paper, the term "household" will be used to refer to a group (both relatives and nonrelatives) living in the same residence.

The interactions within black extended family networks are likely to be more complex than those within the household or the nuclear family unit. In addition, we argue that interactions in black extended family networks differ qualitatively from those in mainstream nuclear families. Interactions within the nuclear family unit are often studied in terms of power and conflict, following Wolfe's (1959) seminal work. We propose that a preferable approach to power and conflict resolution is the mutual exchange framework.

Power and Conflict Resolution vs. Mutual Exchange

Power is related to the household decision process whenever a household member recognizes that his or her own need satisfaction depends on an ability to influence the behavior of one or more other household members. Blau (1964) describes power as an influence "where one induces others to accede to his wishes by rewarding them for doing do" (p. 115). Thus the focus is on satisfaction of one's own needs. A wealth of household studies have focused on power, without taking culture into account (e.g., Burns 1976; Burns and Granbois 1977; Filitault and Ritchie 1980; Green and Cunningham 1975; Jenkins 1979; Hempel 1972). Power is related to conflict in family consumer choice because individuals will choose to enter into or prolong conflict if they lack the ability to bring to a satisfying conclusion the discrepancies in wants of different family members (Seymour and Lessne 1984). Discrepancies of wants, resulting in a win-lose situation, is assumed.

This orientation contrasts with that of Corfman and Lehman (1987), who define power as a more benign construct, and view conflict as being resolved cooperatively. In this paper, we agree that cooperation is an important component to research in family consumption choice. However, since the adversarial definition of power best reflects the orientation of studies which examine the matriarchal nature of black families (e.g., King 1969; Mack 1971; Willie and Greenblatt 1978), we will also adopt this definition. In this way, we can discuss the literature on black families in a manner consistent with the

assumptions of those studies, and also discuss the limitations of this orientation. For example, Martin (1980) notes ". . . the power concept does not provide much of an explanation for outcomes which are not in terms of winning and losing . . . Only under special conditions can families survive when zero-sum hedonistic power confrontations are used as strategies for solving conflicts" (p. 130).

A more appropriate perspective to the study of black families uses the concept of mutual exchange. "Exchange involves 'a transfer of something tangible or intangible, actual or symbolic, between two or more social actors,' implying that each party to the exchange both gives and receives value" (Houston and Gassenheimer 1987, p. 4). Blau (1964) differentiates between social and economic exchange. In economic exchange, the terms of the exchange are given before any transfer takes place. For example, in a buyer-seller economic exchange, the price for a specific product is decided before the product is exchanged for money. Social exchange, in contrast, "involves favors that create diffuse future obligations, not precisely specified ones, and the nature of the return cannot be bargained about but must be left to the discretion of the one who makes it" (Blau 1964, p. 94).

When Martin and Martin (1978) and Stack (1974) regularly refer to mutual exchange relationships within the black family, they are describing social exchange. Rather than focusing on who "wins" in situations of power and conflict, these studies examine exchanges in which all parties involved, and thus the family as a whole, benefit through mutual financial, emotional and material support. By examining mutual exchange, we do not mean to imply that conflicts never occur in black families. Rather, power and conflict occur within the context of mutual exchange. Therefore, this paper focuses on mutual exchange as the framework for the structure of and interactions within the black family extended network.

Frenzen and Davis (1990) incorporate the concept of social exchange into their discussion of embedded markets, which are "markets in which social relations alter market relations" (p. 1). More specifically, "horizontal embeddedness occurs when strong relations bind buyers to other buyers . . . on one side of the market interface" (p. 9). When Frenzen and Davis identify "relatives and close friends" as a potential market segment, they indicate that families are a form of embedded horizontal markets. Study of the black extended family creates an opportunity to assess how social exchanges within horizontal embedded markets affects both family structure and family consumption choice.

BLACK FAMILY CONSUMPTION CHOICE

Using the concepts of extended family and mutual exchange, we can examine in greater detail black family consumption choice. It may be tempting to discuss black family consumption choice in comparison with that of other cultures. We argue that until we study and begin to understand black families

themselves, we will not have sufficient bases upon which to make comparisons. Thus, this initial effort will develop propositions which focus solely on black families. Our discussion begins with larger issues of black family structure. We then turn our attention to more specific issues of family member interaction, and individual-level roles in black families.

Overall Family Structure

The first, and perhaps most general, proposition is that consumer behavior takes place in the context of the extended family network. Some researchers have recognized the importance of the black extended family, but have limited their studies to extended families living in a single residence (Angel and Tienda 1982; Nobles 1978; Wilson 1986). In contrast, Taylor (1986) emphasizes the need to study interactions between households.

Proposition 1: Black family consumption choice includes participation both by family members living within the consuming household and family members living in other households.

Proposition 1 leads to methodological imperatives for researchers of black family consumption choice. The household is not the appropriate unit of analysis. In the extended family network, individuals are interconnected across residence boundaries to form a system of information flow and mutual exchange. The nature of the proposed interpersonal interaction suggests that network analysis may be a useful methodology for the study of black families. (See Brown and Reingen 1987; Reingen, Foster, Brown and Seidman 1984; Reingen and Kernan 1986 for reviews of this technique). The individuals who play the key roles in the network can also be identified using network analysis (Martin and Martin 1978).

Although the extended family appears to be the structural norm in black culture, "black families do not constitute a monolithic pattern of familial relationships . . . but vary by social class as do white families" (Willie and Greenblatt 1978, p. 693). One issue that researchers of black families have addressed is whether the black extended family structure stays intact for families in the middle class, i.e., whether black families become more nuclearized as they move up in social classes.

Two theories regarding the effect of social mobility on the black extended family have been proposed (Brown-Collins 1981; McAdoo 1978). One theory states that the nuclear family is more conducive to social mobility than the extended family. This is because the nuclear family is more geographically mobile, more autonomous, and can use their resources solely for the promotion of their own welfare. This theory would predict that middle class black families would tend to be nuclear; extended family ties have weakened. The opposing theory states that the extended family ". . . promotes social mobility by providing economic resources and social support not available in the small family" (Brown-Collins 1981,

p. 36). This theory would predict that the extended family remains intact for middle class black families.

Empirical support for these theories is mixed. McAdoo (1978) studied upwardly mobile black families. She found that both emotional and functional help were received and given. McAdoo found no difference between those born working class, who had moved up to middle class, and those born middle class. Furthermore, those studied ". . . continued their close interaction and help exchange pattern with kin before, during, and after mobility" (p. 775). Thus these families did not "move out to move up"; in fact, some families felt their upward mobility would not have been possible without help from kin. Taylor (1986), in a national study of blacks of varying income levels, found that income was positively correlated with receiving support from the extended family.

These findings appear to contradict those of Martin and Martin (1978), in their study of blacks in small town areas and Kansas City. They found that mutual aid keeps family members out of poverty, but that individuals may find it harder to rise to middle class because they may have to contribute to the family welfare instead of going to school. Martin and Martin also found, however, that middle class family members are expected to help kin. If middle class family members are not willing to share their resources, they become alienated from the family. Alienation can also come involuntarily, as middle class family members change their lifestyles. They may feel distant from family, although they wish to be close.

The different findings of McAdoo (1978) and Taylor (1986) compared with Martin and Martin (1978) may in part be due to different research methodologies. Both McAdoo and Taylor used structured surveys, which focused on exchange relationships which were intact, rather than those which were weakening. Martin and Martin's (1978) unstructured, in-depth approach allowed for more serendipitous findings. It appears that, although the exchange network is present in all social classes, conflicts may arise when some family members move into middle class, while others remain in lower socioeconomic classes.

Proposition 2: The black extended family can be observed in all social classes. However, when different members belong to both middle and lower socioeconomic classes, some middle class households may become alienated.

Functions of the Black Extended Family

Scholars studying the black extended family network have suggested a network of mutual assistance, or exchange, between family members. Martin and Martin (1978) found two major functions of the black extended family: leadership and support. "Relatives depend on one another for emotional, social, and - most important - material support." Mindel (1980) found the black extended family help system included more functional forms of help than that of whites and Hispanics. Functional help

"involved a variety of mutual aid and support" (p. 26), including advice and monetary support. Similarly, McAdoo (1978) found that both financial and emotional help was received from the family. The combination of material support and advice-giving leads us to:

Proposition 3: The functions of the black extended family include a system of mutual social exchange, including financial support, help with consumption choice, and provision of consumer goods.

A few studies have examined whether the functions of black extended families differ by region of the country or by urban vs. rural residence. Regional differences do not appear to be significant. Aschenbrenner (1973), in her study of black extended families in Chicago, noted that "[s]everal of those who had been born in the South described family relationships and activities there which closely resembled those in Chicago" (p. 259). Taylor (1986), in a national study, also found no difference in receiving support from the extended family between regions in the United States. Nor did he find urban/rural differences. Martin and Martin (1978), however, found that urban blacks relied more on government aid and less on family than rural blacks. Because government aid can not be shared with other family members, the extended family network weakened.

Proposition 4: The black extended family network does not differ regionally.

Proposition 5: Extended family networks weaken when poor urban blacks receive government aid which cannot be shared with kin.

Structure of and Interactions within the Black Extended Family

Social exchange functions within the black extended family take place on two levels: group and individual. On the group level, an individual family member may offer support to the family (through family mechanisms described below) or individual family members. In turn, the individual expects to be helped by the family, rather than by the individual who received their support. On the individual exchange level, a family member offering support to another member expects the recipient to be obligated to return something of value at a later date. Unfortunately, research on exchanges within black extended families often ask respondents about giving and receiving from "family members" (McAdoo 1978,1980; Mindel 1980; Taylor 1986). While these studies offer valuable information about some aspects of black extended family structure and behavior, they do not differentiate between exchange with the family vs. exchange between individuals within the family. Other studies do differentiate between individual vs. group exchange.

Exchange between Individuals and the Family.

When an exchange is made between an individual and the family, the individual gives help to the family and expects to receive support in times of need, but not necessarily from the person who received their help. McAdoo (1980) refers to this as the "kin insurance policy". A major provider of support is the dominant family figure.

Dominant Family Figure(s): Martin and Martin (1978) found that at the head of the black extended family was a dominant family figure. This person, who was usually the eldest, was either male or female, or a husband/wife team. Because black women tend to outlive black men, it was often a female. When the dominant family figure(s) die, the role(s) are generally taken over by the family member(s) who seem most competent and appropriate for this role. The dominant family member gives advice and material support. When a husband and wife share the leadership role, one of the major duties of the husband is to "help provide for the family" (Martin and Martin, p. 20); one of the major duties of the wife is to teach family members "how to handle money" (Martin and Martin, p. 20). Martin and Martin (1978) refer to the husband's role as the stabilizer and the wife's role as the organizer. Because of the family leaders' influences on consumption activities of family members, we would expect:

Proposition 6: The family leader(s) is often a "giver" in the exchange network; giving includes consumer goods and advice on financial and consumption choices.

The family leader's home serves as a base household for the extended family. Interactions among family members is frequent. In Martin and Martin's (1978) study, 65 per cent of respondents said they interacted with extended family members at least once a week. In McAdoo's (1980) study, black mothers living within 30 miles of their relatives tended to see relatives at least weekly. However, family members do not have to live in the base household or even be geographically close to be an integral member of the family or to receive support from the family. It is logical to expect that:

Proposition 7: Family members who live closer to the base household interact more frequently in person with other family members, and thus are more likely to receive assistance in the form of small consumer goods and small monetary gifts. For larger monetary gifts, more expensive consumer goods and advice on financial and consumption choices, distance from the base household does not affect the exchange process.

"Momma": As stated above, individuals in the extended family engage in social exchange with the family as a group. The individual who facilitates this exchange process is "Momma". Because "Momma" is often but not necessarily the family leader (Martin and Martin 1978), she will be considered independently of

the leadership role. "Momma" acts as an exchange facilitator for the entire black extended family. She receives money from different family members, who have in turn received help from her or other family members. Donations may be given in small amounts on a regular or irregular basis, and/or in times of special need. "Momma" distributes money to family members, as needed (Martin and Martin 1978). Jack (1978) emphasizes that "Momma" is not a matriarch or power figure, but a figure of respect. "Momma" is the spiritual leader of the group. "Her influence comes from persuasiveness in that what she has to say is right" (Jack 1978).

Proposition 8: "Momma" serves as the focal point for the facilitation of monetary exchange within the family. "Momma" is an active participant in family consumption choice. This is especially true in the consumption choices of those receiving aid. Participation may include offering advice on purchases, or buying and offering the goods themselves.

In return for giving to the family, the giver has the knowledge that he or she will be helped in times of need. In addition, the giver receives status in the family (Martin and Martin 1978).

Besides giving to "Momma", individuals may give to other individuals in the extended family, without obligating the other individual to repay the debt. For example, McAdoo (1980) found that the black mothers in her sample, ". . . felt obligated to help poorer members of the family and in turn would expect to be helped by someone who was substantially better off than they were" (p. 143). McAdoo also found that aid in the form of consumer goods and services was generally not expected to be paid back.

When assistance to an individual does not result in the recipient's obligation to reciprocate, this does not mean that social exchange is absent. Rather, the contribution reinforces the giver's membership in the kin insurance system; the family, through Momma or other individuals, will reciprocate in times of need.

Proposition 9: Exchanges take place between individuals and the family in the sense that contributing to another family member places an obligation on the family as a whole, rather than to the actual recipient, to reciprocate.

Exchanges Between Individuals in the Black Extended Family. The operation of the individual exchange network consists of a system of reciprocal obligations among its members. How these obligations are defined and fulfilled may differ across social classes among blacks. In this section, individual exchanges among very poor blacks will first be discussed, and then compared with exchanges among blacks with higher income levels.

A classic study on mutual exchange was done by Stack (1974), who describes an exchange network among very poor blacks that consists of "swapping" or "trading". In swapping, consumer goods are

exchanged (as well as services such as child care). While the exchange can be simultaneous, more frequently one good is given in return for an obligation to give something in the future to the initiator of the exchange. Members of the extended family (which include both kin and others defined as kin) will directly ask to be given goods which others own. Swapping is heaviest with closest kin. "Haves" are expected to share with "have nots." Those who take without giving are criticized. Family members may encourage others to whom they are heavily obligated to take something, to better balance the exchange relationship. Swapping appears to be an urban adaptation of the rural cooperative economic system which was once common. In this system, different households in the extended family specialized in one or a few farm products. These products were shared within the family (Shimkin, Louie and Frate 1978). Because the urban poor cannot specialize in production as farmers can, mutual exchange consists of whatever possessions are available.

Proposition 10: Among very poor blacks, individual exchanges are of goods and services. This compares with exchanges among blacks of higher socioeconomic classes, which may not be individual and can, in addition to goods and services, include money.

When mutual exchange consists of exchanging goods and services, family consumption choices are often limited to the possessions of family members. Thus, we would expect:

Proposition 11: When swapping occurs, consumption choices resemble impulse purchases; an item is seen and requested by one family member of another member. Problem recognition and final decision occur simultaneously; there is no search for information regarding alternatives.

For middle and working class blacks, individual gifts of goods and services are not expected to be repaid; rather, as described above, giving of goods and services is considered part of the "kin insurance policy" (McAdoo 1980). However, McAdoo also found that financial gifts are more likely to incur an obligation to reciprocate. Martin and Martin (1978) also note "[m]oney sometimes changes hands in the form of a loan without any serious pressure put on the borrower to pay it back" (p. 30), implying that the absence of obligation in monetary loans is not the norm. It appears that monetary loans sometimes incur a direct obligation, but not always.

Proposition 12: For blacks who are not extremely poor, monetary loans are more likely to be considered individual exchanges, incurring obligations to directly reciprocate, than are goods or services.

The prevalence of individual exchange among very poor blacks has important implications for these families' functions and interactions. When Stack (1974) did in-depth ethnographic research in a poor

black community, she did not find the extended family structure (consisting of a dominant family figure and "Momma") which Martin and Martin (1978) describe. While this may have been a result of methodological error, there is also a possibility that the structure does not exist among very poor black families. In order to understand why, we need to consider the necessary requirements for the "kin insurance policy" which exists when an individual engages in exchange with the family. As with any insurance policy, something of value is given with the expectation that sometime, perhaps far in the future, the contributor will be helped in times of need. For middle class blacks, for example, help is received from the family when making large purchases (McAdoo 1980). Martin and Martin (1978), who found a kin insurance policy, studied families which were in economic need, but all family members were not living in extreme poverty. For very poor blacks, it is not possible to buy "insurance" from the family as a credit against future needs; the needs of everyday life are overwhelming. Thus, individuals exchange with each other on a daily basis. And, unlike families who are not so poor, in which one can, for the most part, give without expectations of receiving from the recipient because one will be helped by family members who are better off (McAdoo 1980), in very poor families, no one is better off. As Stack points out, "[t]heir social and economic lives were so entwined that not to repay an exchange meant that someone else's child would not eat" (p. 28).

Proposition 13: Among very poor blacks, there is no kin insurance policy and no exchange facilitator; exchanges are between individuals only.

We have developed the above propositions based on the principles of the black extended family norm and the prevalence of mutual exchange in the black extended family. These principles not only guide what should be studied regarding consumption choice behavior in the black family, but also how studies in black family consumption choice should be designed.

METHODOLOGICAL APPROACHES TO THE STUDY OF BLACK FAMILY CONSUMPTION CHOICE

As mentioned above, research on the black extended family should be through network analysis and not be limited to members of one household. Although potentially time-consuming and costly (Hagestad 1981), this will require the identification of all family members in the network (Brown and Reingen 1987; Reingen, Foster, Brown and Seidman 1984; Reingen and Kernan 1986), including those in special roles (e.g., "Momma"). Data collection would include in-depth interviews with those with major roles in the family (e.g., family leader(s) and "Momma"), and shorter interviews with other family members (McAdoo 1988). An alternative methodology would be through intensive ethnographical observation, as done by Stack (1974).

While observation would certainly be a useful data collection method, the need to be accepted as a member of a family may not be a viable one for most researchers. In either case, small sample sizes (in terms of number of families) would be used, due to the extensive interviewing needed. For more specific issues in research design, see Hill (1970).

Researchers of the black extended family should also identify exchanges between individuals vs. exchanges between the individual and the family. For example, questions must be more specific than asking about aid given to and/or received from "the family". Rather, the research instrument should differentiate between: (1) aid received from the dominant family members; (2) aid given to or received from "Momma"; (3) aid given to individuals as part of the kin insurance policy, which obligates the family, but not the recipient, to reciprocate; and (4) aid given to individual family members which incurs an obligation on the part of the recipient to directly reciprocate. In addition, researchers may want to explore the structure of products/services/monetary gifts with regard to these four categories.

For all research, the focus should be on mutual exchange, rather than power and conflict. This is not to imply that there are no situations of power and conflict in black extended families. Rather, power and conflict are not the driving forces which motivate family structure and interactions among family members. Only when the basic structures and interactions of black extended families are better understood should more specific situations, such as conflict resolution, be explored.

CONTRIBUTIONS OF THE PROPOSED FRAMEWORK TO FAMILY RESEARCH

The framework presented in this paper offers several benefits to consumer researchers who are interested in the effect of subculture on family consumption choice. First, this framework allows better understanding of black family consumption choice. Study of black family consumption choice must be approached from the black cultural perspective, rather than studied through the filters of white family research.

Secondly, this framework can serve as a reminder of the need to relinquish the filters of white family research for all research on family decision making in subcultures. Two principle components of this framework, mutual exchange and extended family, which are important for the understanding of black family consumption choice, may or may not be applicable to other subcultures. Researchers of other subcultures will need to identify the appropriate structure and functions of the family in each subculture.

Finally, the propositions set forth in this paper may be used to approach white family consumption choice in a new light. In addition to subcultural influences, the extended family was an area identified during first Association for Consumer Research - Household Consumption Behavior Session (Burns and Gentry 1988) as one needing research to further develop knowledge in household theory.

Willie and Greenblatt (1978) note "[t]he traditional two-parent nuclear family was never the only viable family unit in Western culture, and in our rapidly changing society, it can no longer be viewed as the ideal arrangement which all families should be encouraged to emulate" (p. 694). The white extended family may operate differently than the black extended family; more research is needed. Equally important, the concept of mutual exchange, rather than power and conflict, should be considered an alternative perspective when approaching the study of white family consumption choice. Perhaps in the post-machismo era, a kinder and gentler approach to family consumption choice is needed.

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Psychographic Variation Across United States Geographic Regions

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ABSTRACT

As an extension of previous work on values and geographic segmentation (Kahle 1986), this paper tested the predicted geographic variation of each value from the List of Values, and related psychographic and behavioral measures, across four regions of the United States. The values of self-respect, warm relationships with others, self-fulfillment, sense of accomplishment, being well-respected, and sense of belonging, as well as theoretically-related measures of psychographics and behavioral measures, showed significant differences across regions. In contrast, security and fun and enjoyment in life, as well as their related psychographic and behavioral measures, showed no significant variations across regions. People in the West and East prize respect and sociability less highly than do people in the Midwest and South, with the difference between West and South being especially significant. The marketing implications are discussed.

INTRODUCTION

One of the key concepts and techniques in marketing is segmentation (Dickson and Ginter 1987), which is widely used by managers and researchers for market analysis. Although some popular segmentation strategies divide people based on geographic regions and although geographic segmentation is widely used in marketing consumer products, only a few scholars have considered the cross-frontier effects of relating geographic segmentation to consumer behavior. Kahle (1986) studied the variation of values among the "Nine Nations of North America" and among the different regions of the United States as defined by the U. S. Bureau of Census (BOC). Based on the theory of Garreau (1981, cf. William 1982, Baerwald 1983, Salter 1983, Major 1983), Kahle predicted that, because of the regional differences in political considerations, histories, loyalties, climates, resources, and other factors, the values also would vary across regions. He found significant variation across the four (and nine) regions defined by the BOC, but not across the "Nine Nations" described by Garreau (1981).

Rokeach (1973) states that values guide actions, attitudes, and judgments. Clawson and Vinson (1978) suggest that values perhaps equal or surpass the contribution of other major psychographic constructs including attitudes, product attributes, degrees of deliberation, product classification, and life style in understanding consumption behaviors. Furthermore, in an structural equation study Homer and Kahle (1988) provide evidence consistent with the theoretical flow:

consumer values → attitudes → consumer behaviors.

An expanding body of knowledge corroborates these conclusions as applied to the consumer behavior literature, but few studies demonstrate the function of geographic differences in this sequence.

It would be logical to conclude from the above work that, because values vary among regions and because values are closely related to activities, attitudes, opinions and other dimensions of psychographic profiles, which themselves are often directly related to behavior, these dimensions and behaviors should also vary by geographic region. Thus, one objective of the research reported here is to examine whether the previously-observed variation in values across geographic regions extends to the attitudes and behaviors most closely associated with those values.

Another issue is that Kahle (1986) examined the variation of the most important value of individuals in List of Values (LOV) across regions, but did not examine how individual value ratings vary by region. That is, the nominally-measured values do differ in that the proportion of people in each region who select each value as most important differ, but it is unclear whether similar patterns would emerge with intervally-measured values, considered on a value-by-value basis. This study addresses that issue of regional variation in the means of values.

In sum, this study attempts to test the variation of each individual value from the LOV (Kahle 1983) across the regions, and then it extends the test to other dimensions of consumers' psychographic profiles. Theoretically from the above discussion, the variation of each value across different regions should correspond with the variation of other dimensions of psychographics that are related to that value.

The general theoretical orientation guiding this research can be described in a simplified form by the diagram in Figure 1.

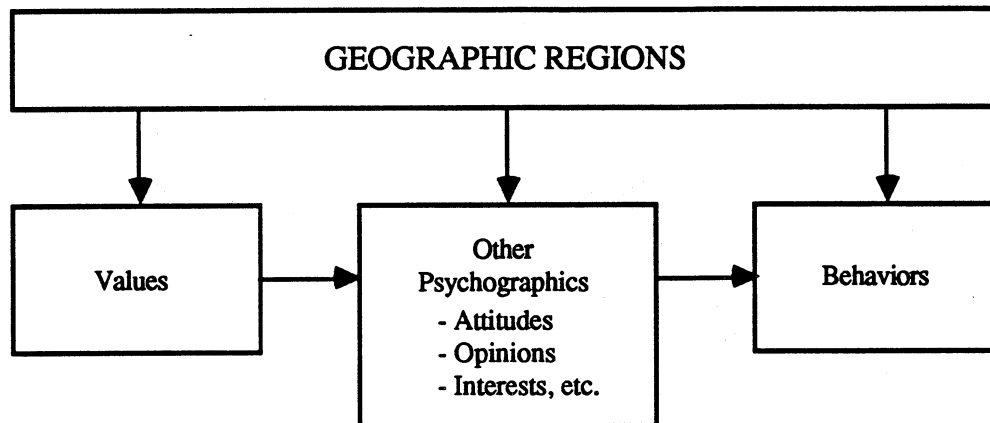
HYPOTHESES

- H1: Each of the individual values of the LOV will vary significantly across the four geographic regions identified by the BOC, as hypothesized by Kahle (1986).
- H2: Other psychographic dimensions, as well as behaviors that are most closely associated with each value, will also vary significantly and in a similar pattern to the value variation across the same four geographic regions.

METHOD

Data for this study came from a consumer mail panel study, which was based on a national quota sample of 640 respondents in the United States,

FIGURE 1
Conceptual Model



designed to represent region, sex, age, income, and education accurately. The overall response rate was 66%, with no significant deviations from BOC proportions among the major demographic subgroups.

Regions were defined by states using the BOC definitions, as follows: East (New England: ME, NH, VT, MA, RI, CT; Mid-Atlantic: NY, PA, NJ, DE), Midwest (East North Central: WI, IL, MI, IN, OH; West North Central: ND, SD, MN, NE, KS, IA, MO), South (South Atlantic: WV, MD, DC, VA, NC, SC, GA, FL; East South Central: KY, TN, MS, AL; West South Central: TX, OK, AR, LA), and West (Mountain: NV, ID, MT, WY, UT, AZ, CO, NM; Pacific: CA, OR, WA, AK, HI). Region was defined by state in which a person was born rather than state in which a person currently resides because cultural transmission is often stronger from birth place than from place of current residence.

The List of Values (LOV) consists of 8 values for respondents to evaluate: self-respect, being well respected, sense of belonging, warm relationships with others, fun and enjoyment in life, self-fulfillment, sense of accomplishment, and security. For each value from the LOV, a Likert-type scale (1 to 7) was used, where "7" means "extremely important to me," and "1" means "not at all important to me." Following social science convention, these scales were assumed to be interval. ANOVA was used to test for value differences across the four regions defined by the BOC. Furthermore, the Tukey test was used to see how responses differ across the regions for each value.

Next, the measured dimensions of psychographics (also measured by 7 point Likert scales anchored by phrases such as "extremely important to me" vs. "not at all important to me," or "describes me extremely well" vs. "doesn't describe me at all,") were sorted into different categories based on the theoretical descriptions of the nine values of the LOV (cf. Kahle 1983; Kahle and Kennedy 1989). For instance, "I often go to a church or synagogue," "I identify strongly with people of my age," and "People should think about the good of society, not just about

whatever makes them happy as individuals," are sorted into the *Sense of belonging* category; on the other hand, "I am polite and well-mannered," and "If everyone would just love one another as brothers and sisters, most of the world's problems would go away" are sorted into the *Warm relationships with others* category. This sorting process was carried out based on a combination of the results of a factor analysis and especially on the theory-driven judgement of three independent experts. The judgment process used the following procedure: (1) A value-related list of psychographic items was generated. (2) Each expert independently sorted the psychographic items into the different value categories based on prior knowledge of the categories. (3) The three experts came together and resolved any discrepancies among the judgments. After sorting, ANOVA was used to test the differences of each event in each category across the different regions.

In a few instances a particular lifestyle item was not viewed as uniquely applicable to only one value. Some values have overlapping spheres. For example, both warm relationships with others and sense of belonging have stronger implications for sociability than the other values; or both self-fulfillment and sense of accomplishment have a strong achievement component. Likewise, identical attitudes may result from different values for very different psychological reasons or very different means-ends ladders (Gutman 1982, Reynolds and Gutman 1988). For example, two people may prefer a wine cooler to a mixed drink because it contains less alcohol. In one case the decrease in alcohol content may be desired in order to be well respected, and in another case the desire may result from seeking to belong to a group in which excessive alcohol consumption is discouraged. The causal chains may differ, and the ideal consequences may differ, even though one point on the chains may be identical. Because we wanted to develop possible consequences of values rather than mutually-exclusive categorizations, we occasionally allowed lifestyle items to reflect more than one value.

TABLE 1
Value Variation by Region

Values	F	Region Order	Comparison	X1	X2	X3	X4
Self respect	4.43*	W,E,M,S	W-S**	6.37	6.55	6.55	6.72
Security	0.92	[EMWS]	---	6.29	6.29	6.31	6.43
Warm relations. w. others	5.54*	E,W,M,S	EWM-S	6.03	6.03	6.07	6.39
Self-fulfillment	3.38*	M,W,E,S	M-S	5.82	5.91	6.03	6.16
Sense of accomplishment	2.54*	M,W,E,S	M-S	6.04	6.14	6.17	6.31
Being well-respected	3.22*	W,E,M,S	W-S	5.72	5.97	6.01	6.20
Sense of belonging	2.74*	W,E,M,S	W-S	5.52	5.77	5.81	6.02
Fun & enjoyment in life	1.73	[MEWS]	---	5.53	5.60	5.67	5.81

* P < .05

** E = East, M = Midwest, S = South, and W = West
X1, X2, X3, & X4 = group means

TABLE 2
Psychographic Variation by Region under the Category *SELF-RESPECT*

Lifestyle item	F	Region Order	Comparison
I don't want to depend on other people	4.16*	M,E,W,S	M-S**
Fits my own taste	2.53*	W,M,E,S	W-S
We should all have a place where we can be alone	6.84*	M,W,E,S	WM-S
Anyone who completely trust anyone else is asking for trouble	4.21*	W,E,S,M	EW-M
I am courageous	4.44*	W,E,S,M	W-SM
I am extremely concerned about our moral values	5.38*	W,E,M,S	EW-S
I am honest and sincere	3.43*	W,E,M,S	W-MS
I am beautiful, attractive	3.65*	W,E,M,S	EW-S

* P < .05

** E = East, M = Midwest, S = South, and W = West

Finally, by comparing the results of the experts' sorting with the empirical results, the degree of consistency in the variations of these dimensions of psychographics across the regions with the variations of each corresponding value will be evident.

RESULTS AND DISCUSSION

The results are shown in Tables 1 through 7. In the Tables, *region order* means the ascending order of the means in different regions where E = East, M = Midwest, S = South, and W = West. For example, the order of W, E, M, S implies that the mean in the West is the smallest (i.e., "least important" or "least characteristic") and in the East is the second smallest. *Comparison* means that, given alpha = 0.05, a Tukey multiple pairwise comparison test shows the significantly different pairs of regions. For simplicity, we listed the results in only the four regions case, but not the nine regions case. The conclusions for the nine regions case are essentially the same as for the four regions case.

Table 1 shows the results of the comparisons of the four geographic regions for each of the LOV values. Only the importance ratings for security and

fun and enjoyment in life failed to vary significantly by geographic region. Thus, Hypothesis 1 is generally supported. People in the West and East prize respect (self-respect, being well-respected) and sociability (warm relationships with others, sense of belonging) less highly than do people in the Midwest and South, with the difference between West and South being especially significant. People in the Midwest, West, and East prize achievement (self-fulfillment, sense of accomplishment) less highly than do Southerners, with the difference between the Midwest and the South being especially significant.

Perhaps the most interesting observation from these data is that the Southern region assigned the highest ratings to *all* of these values. This result may be due to any one of several factors. 1) The difference may be a measurement artifact. Perhaps these particular values have more appeal or are more appropriate for the South than for other regions. We have previously argued that the proper list of values may vary geographically by continent (Liu and Kahle 1989); the same argument may apply within a country. 2) The difference may be a regionally-based response style. Although it seems unlikely, perhaps people in the South use rating scales differently than

TABLE 3
Psychographic Variation by Region under the Category
WARM RELATIONSHIPS WITH OTHERS

<u>Lifestyle item</u>	<u>F</u>	<u>Region Order</u>	<u>Comparison</u>
I am polite and well-mannered	3.72*	W,E,M,S	W-S**
You should willingly help your neighbor whenever asked	3.22*	W,E,M,S	W-S
When I buy the same things my friends buy I feel closer to them	2.44*	-----	
If everyone would just love one another as brothers and sisters, most of the world's problems would go away	4.89*	W,E,M,S	EW-S
I like to feel attractive to members of opposite the sex	4.67*	M,E,W,S	M-S

* P < .05

** E = East, M = Midwest, S = South, and W = West

TABLE 4
Psychographic Variation by Region under the Category *SELF-FULFILLMENT*

<u>Lifestyle item</u>	<u>F</u>	<u>Region Order</u>	<u>Comparison</u>
I read self improvement books	4.32*	W,E,M,S	EW-S**
I use exercise machines	3.04*	M,E,S,W	M-W
I read fashion magazines	6.43*	M,E,W,S	EM-S
I always try to buy top quality products	4.12*	W,E,M,S	EW-S
It is important for people to do all they can to keep healthy	3.61*	W,M,E,S	W-S
I am beautiful, attractive	3.65*	W,E,M,S	EW-S
I drink imported beer	3.40*	M,S,W,E	M-E
I like using personal computers at home	2.72*	-----	
Meal preparation should take as little time as possible	3.03*	M,E,S,W	M-W

* P < .05

** E = East, M = Midwest, S = South, and W = West

TABLE 5
Psychographic Variation by Region under the Category
SENSE OF ACCOMPLISHMENT

<u>Lifestyle item</u>	<u>F</u>	<u>Region Order</u>	<u>Comparison</u>
Recently I have been reexamining my goals in life	4.46*	E,W,M,S	E-MS**
When I plan my days I think more about the future than present	4.17*	W,E,M,S	W-S
Meal preparation should take as little time as possible	3.03*	M,E,S,W	M-W
People spend too much time watching TV	2.52*	E,M,W,S	E-S
I buy products through the mail	2.91*	M,E,W,S	M-S
I always try to buy top quality products	4.12*	W,E,M,S	EW-S
I buy self-improvement book	4.32*	W,E,M,S	W-S
I like using personal computers at home	2.72*	-----	

* P < .05

** E = East, M = Midwest, S = South, and W = West

people in other parts of the United States. 3) The psychological importance of values may be greater in the South than in other regions. Theoretically, this possibility is the most intriguing. Clearly additional research on this topic would be interesting.

Neither the values of security, fun and enjoyment in life, nor their related psychographics

and behaviors, are viewed significantly differently across geographic regions. One explanation for this lack of variation might be the prevalence of these values in nation-wide activities and services, such as communications. For instance, the nationwide equivalent occurrence of security-related phenomena, such as insurance companies, crime, disease, and

TABLE 6
Psychographic Variation by Region under the Category
BEING WELL-RESPECTED

<u>Lifestyle item</u>	<u>F</u>	<u>Region Order</u>	<u>Comparison</u>
I am clean and tidy	8.22*	W,E,S,M	W-ESM
If I bought something expensive, I'd worry what others'd think	2.77*	E,W,S,M	E-M
I drink imported beer	3.40*	M,S,W,E	M-E
I wish I could spend more time keeping my house clean	2.77*	E,W,S,M	E-M
I am extremely concerned about our moral values	5.38*	W,E,M,S	EW-S

* P < .05
** E = East, M = Midwest, S = South, and W = West

TABLE 7
Psychographic Variation by Region under the Category *SENSE OF BELONGING*

<u>Lifestyle item</u>	<u>F</u>	<u>Region Order</u>	<u>Comparison</u>
I often go to church or synagogue	3.31*	W,E,M,S	W-MS**
People should be very loyal to their employers	5.59*	E,W,S,M	E-SM
I am pretty much like my parents	3.14*	E,S,W,M	E-M
Understanding God's relationship with human beings is the most important thing in life	1.54*	W,E,M,S	EW-MS
People should think about the good of society, not just about whatever makes them happy as individuals	5.77*	W,E,M,S	EW-MS
I identify strongly with people of my age	3.19*	W,E,S,M	W-M
I identify strongly with people of my race	8.20*	W,E,M,S	EW-MS
I identify strongly with people of my ethnic group	6.86*	W,E,M,S	EW-S
Families are happiest when father, mother & children live together	3.27*	E,S,W,M	E-M
I often feel lonely	5.56*	E,W,M,S	E-MS
When I buy the same things my friends buy I feel closer to them	2.44*	-----	-----
I use dish washing machines	4.58*	M,S,E,W	SM-W

* P < .05
** E = East, M = Midwest, S = South, and W = West

death, may lead to equivalent concerns for the value of security. Threats to security, such as military threats, may be more national than regional. For fun and enjoyment in life, the nationwide occurrence of sporting events, television entertainment, magazines, movies, and other factors may lead to equivalent concerns for that value. Likewise, intra-regional variability may create large variances. What people mean by *fun* may vary more between some pairs of Western states (e.g., California vs. Alaska, Nevada vs. Utah) than between the West and Midwest, for example.

The focus of this research is to provide additional support for the notion that both values and related lifestyles vary by geographic region. Hypothesis 2 states that other psychographic dimensions, as well as behaviors that are most closely associated with each value, will also vary significantly and in a similar pattern to the value variation across the same four geographic regions. In

general Tables 2 through 7 show support for this hypothesis. Most of the lifestyle items measured in this study vary significantly across regions, and many (but not all) vary in patterns that reflect their associated value.

Table 2 presents the comparisons by geographic region for the lifestyle items associated with self-respect. Self-respect is accorded the lowest rating by respondents from the West, followed by the East, the Midwest, and the South. This general pattern is reflected by many of the lifestyle items. For example, Southerners are particularly likely to be independent in terms of their buying patterns. This finding would suggest, for example, that retailers may need to offer a wider selection in the South than in the West.

Table 3 presents the comparisons by geographic region for the lifestyle items associated with warm relationships with others. This value is rated similarly by respondents from the East, the

West, and the Midwest, but it is rated significantly higher by respondents from the South. Similarly, Southerners rate the associated lifestyle items more favorably than respondents from other regions. These results might be of interest, for example, to fund raisers targeting different regions.

Table 4 presents the comparisons by geographic region for the lifestyle items associated with self-fulfillment. For example, Midwesterners rate self-fulfillment relatively unfavorably. In this region the value seems to be reflected in lifestyle terms by a high interest in improving health and appearance but not by self-perceived attractiveness. Midwesterners are relatively unlikely to pursue information concerning these interests in fashion magazines. In contrast, Southerners, who rate self-fulfillment favorably, also rate health favorably but already viewed themselves as attractive. They are more likely to read self-improvement books. These data provide mixed support for Hypothesis 2.

Table 5 presents the comparisons by geographic region for the lifestyle items associated with sense of accomplishment. Of the lifestyle items in this table, only the item on mail-order purchasing demonstrates the identical rating pattern across regions as was exhibited by the sense of accomplishment value. Southerners, who rate sense of accomplishment favorably, are relatively concerned about time spent watching television and preparing meals. Easterners and Westerners are less likely to value planning for the future, reexamining goals, and buying high quality products. These results suggest, for example, that advertisements that tie product quality to the value of a personal sense of accomplishment will be more effective in the South than in the East or West.

Table 6 presents the comparisons by geographic region for the lifestyle items associated with being well respected. Westerners are relatively likely to rate this value low. Respondents are concerned about moral values and about personal tidiness. Drinking imported beer is prized less by Midwesterners than by respondents from the East. Again, Hypothesis 2 received mixed support.

Table 7 presents the comparisons by geographic region for the lifestyle items associated with sense of belonging. The items deemed to be associated with this value fall into two categories. One category, which closely follows the regional pattern of the base value, consists of items measuring respondents' relationships and identities with relative abstractions such as God, society, and their race and ethnic group. Westerners placed the least emphasis on these items. The other category of items involved more concrete relationships with employers, parents, and families, as well as feelings of personal loneliness. These items were emphasized by Easterners. Of these items, Southerners placed the most favorable ratings on lifestyle items related to the family.

Overall, the data in Tables 2-7 show parallel patterns to the data in Table 1. For 20 of the 47 items included in the Tables 2-7, the same exact pair of post-hoc comparisons emerged as significant at the .05

level. Given 4 regions, the total number of possible different pairs would be the permutation, $4!/2! = 12$. The probability of any given pair being chosen would be $1/12$. According to binomial probability distribution, the p-value of 20 particular (i.e., significant) pairs being chosen would be:

$$p(x \geq 20) = 1 - \sum_{x=0}^{19} \binom{47}{x} \left(\frac{1}{12}\right)^x \left(\frac{11}{12}\right)^{47-x} < .0001$$

Thus, with any reasonable alpha level we can reject the null hypothesis that the lifestyle pairings resulted from a random process.

IMPLICATIONS

People's activities, interests, opinions, and attitudes, vary approximately as do their related values. This pattern fits the value-attitude-behavior hierarchy hypothesized by Homer and Kahle (1988). Value information can aid in understanding lifestyle and consumer behavior, consistent with the theory presented in the Introduction section and elsewhere (e.g., Kahle 1986). Marketing managers ought to recognize the importance of geographic differences in values and lifestyles. When marketing managers try to meet consumers' needs in terms of self respect, warm relationships with others, being well-respected, and/or sense of belonging, they should consider the differences across the four regions, especially the differences between the West and the South.

Values have the potential to help clarify consumers' motivations and may point to the underlying "rationality" or "psycho-logic" of ostensibly illogical buying decision processes. Marketers can use value-behavior linkages or value chains to help measure and understand consumers' involvement with a product. Similarly, value chains provide the opportunity to develop advertising programs that tie product benefits to consumers' personal meanings at several, increasingly meaningful levels of abstraction. Furthermore, efforts to measure advertising effectiveness may be improved by assessing how successfully the ads tie product meanings back to personal values. Even if value and lifestyle information is not directly utilized, creatives can understand the characteristics of certain regions and target segments if this type of information is available.

Because these value-behavior linkages or chains vary geographically, managers have some potentially useful segmentation opportunities. Consumers could be segmented by value chains, and then the value chain segments could be prioritized by geography for further regionally-focused marketing attention. This prioritizing could be of significant utility to marketers attempting either to develop regional products or to market national products on a regionally-sensitive basis. It may even be possible to decide whether to use values to segment based on these results. For example, Westerners appear to place a less weight on the core values than do Southerners. Thus, an advertising campaign for a product in the South might emphasize value fulfillment more,

whereas a campaign in the West might emphasize benefits and more literal aspects of consumption. For another example, because people view security and fun and enjoyment in life no differently across the nation, marketing managers in nation-wide companies who sell security-oriented products or services might well advertise most effectively on nation-wide TV programs or in nation-wide magazines. The extra effort of geographic segmentation is lost for products and services that tie to these values.

Because these data were collected more than a decade after the data were collected for the Kahle (1986) study and because this study relied on interval rather than nominal data, it implies that geographic differences have a certain robustness. These results suggest that the underlying geographic differences within the United States have a persistent and detectable effect on consumer activities.

CONCLUSION

As an extension of Kahle's work (1986), this paper tests the variations of each value and related psychographic and behavioral measures across four regions of the United States. Self-respect, warm relationships with others, self-fulfillment, sense of accomplishment, being well-respected and sense of belonging, and theoretically-related psychographic and behavioral measures, show significant differences across the regions. In contrast, security, excitement, and fun and enjoyment in life, and related psychographic and behavioral measures show no significant variations across the regions. People in the West and East prize respect and sociability less highly than do people in the Midwest and South, with the difference between West and South being especially significant. We have only just begun to understand all of the marketing implications of these findings.

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Effects of Source Likability on Attitude Change Through Message Repetition

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ABSTRACT

This paper reports on an empirical study of the effects of source likability, message repetition and the memorization of arguments on attitude change. The results indicate that likable sources enhance attitude change only through the mediation of message memorization and repetition. It is suggested that likable sources cannot compensate for inadequate argumentation.

INTRODUCTION

Advertisers pay much attention to the choice of an adequate character who will introduce their product or service in the advertisement. One of the most desired characteristics of the personality is likability. Some studies have shown that likability has positive effect on attitudes toward the message, but these results are somewhat controversial; moreover, few studies have investigated the combined effect of attractiveness and repetition which is related to the following question: Do the positive effects of attractive sources wear out through repetition? If yes, advertising investments in personalities such as Madonna or Michael Jackson should be reconsidered.

This paper first reviews the main effects of likability on message acceptance and the effects of repetition on attitude change. Hypotheses will be presented on the basis of experimental results on the effects of repetition. Results from the empirical study are discussed and some managerial implications are proposed.

Effects of Likable Sources on Attitude Change

In the marketing literature, likability has often been confused with physical attractiveness. However, Kahle and Homer (1985) have suggested that there might not be any correlation between the two: for example, John McEnroe could be both physically attractive and unlikable due to his behavior.

A likable person may be defined as one who says pleasant things (Eagly and Chaiken, 1975). Based on this specific definition, Himmelfarb and Arazi (1974) found that, while an attractive communicator may be more persuasive than an unattractive one when subjects have no choice but to listen to the message, the unattractive communicator may be more effective when subjects have that choice. In a counter attitudinal behavior situation, Eagly and Chaiken (1975) found that, even if attractive communicators were more persuasive than unattractive

ones when given undesirable positions, both were equally persuasive when given desirable positions.

Effects of Repetition on Attitude Change

Repeated exposure to a stimulus positively enhances its assessment (Zajonc, 1968). As shown by Moreland and Zajonc (1979), repeated exposure to a new stimulus brings about a loop reaction between two subjective elements: a feeling of familiarity and a predisposition toward the object of a message. Repetition of a given message makes the memorized elements more accessible to evaluation. Cacioppo and Petty (1979) have suggested that repeated exposure to a message triggers the cognitive elaboration of arguments: the number of counter-arguments declined then increased as the number of exposures increased whereas the number of support arguments followed the opposite pattern.

Krugman (1986) also showed that repetition can have negative effects. A message can be too familiar: when consumers are exposed to repeated messages that they have already memorized, even if they are positively assessed, these messages do not bring anything new and do not deserve their attention. This idea has been supported by a number of researchers. In particular, Berlyne's two-factor theory (1963) shows the existence of an inverted U-curve: increasing the number of exposures to a message from a low to a moderate level is expected to enhance its impact, whereas further exposures are expected to cause its effectiveness to decline. At lower levels of repetition, reduction of uncertainty brings about a rather positive assessment of the message; at higher levels, repetition is associated with boredom and leads to a negative assessment of the message. However there is also a substantial number of studies that show no relation between these two variables (e.g., Belch, 1982; Mitchell and Olson, 1981).

Two opposite effects are at play here: on the one hand, a decreased interest for the message when repeated beyond a given threshold and on the other, a positive relationship between the memorized content and the emotion generated by a likable source. How do these two factors interact? It is suggested that a likable source may soften the negative effects of repetition: when the repeated message is associated with a likable source, the rate of advertising wearout, i.e., the decreasing interest, is lower. Consequently, when the message is associated with a likable source, its repetition may have significantly more effect on attitude change than in the case of a neutral source. Memorization of the arguments in the message can be attributed to the fact that the message has triggered the receiver's attention. What remains to be answered are the following two questions:

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- (1) Does memorization enhance the production of counterarguments and create a negative attitude when the message is frequently repeated?
- (2) Does memorization lead to a positive attitude when the message is associated with a likable source that creates a positive emotional bond with the audience?

Hypotheses

a) *Main Effects*

- H₁ A likable source generates more attitude change than a neutral source.
- H₂ Repetition generates attitude change in a curvilinear way (inverted U shaped curve).
- H₃ Attitude change is higher for respondents who have memorized at least one argument than for those who have not.

b) *Two-way Interaction Effects*

- H₄ The effects of repetition on attitude change are stronger in the case of respondents exposed to a likable source than in the case of respondents exposed to a neutral source.
- H₅ The effects of memorized arguments on attitude change are significantly stronger when associated with a likable source than when associated with a neutral source.
- H₆ The effects of repeated arguments on attitude change are significantly stronger when memorized by respondents than when not memorized.

No three-way effect hypothesis is proposed due to the fact that the literature is silent on this relationship.

METHODOLOGY

The hypotheses were tested on the basis of a factorial design experiment. Each dimension of the factorial design was conceived as properly representing a single concept. The essential purpose of the design was to understand the interactive effects of affective variables. The factorial design coupled with the analysis of variance were chosen to combine best the experimental technology and the data analysis.

Dimensions of the Factorial Design

For the purpose of this research, the factorial design was constructed around two major dimensions:

- The level of message *repetition*
- The level of *likability* (or attractiveness) of the source
- The complete design used *six* experimental conditions:
- *Three* levels of repetition: 1, 3 and 5
- *Two* levels of likability: high and neutral

Each of these dimensions is further explained in the following sections.

Repetition

The rationale for varying the level of repetition from 1 to 3 to 5 for the same advertising message was to design an experiment which would as much as possible simulate real-life situations. In a normal television advertising sequence, a given message never appears more than five times; thus, 1, 3 and 5 seemed the appropriate frequencies to use, 1 being the minimum, 5 the maximum, and 3 the intermediate frequency. These are also the levels of frequency used in previous studies on repetition; for instance, Belch (1982) tested the effects of 1-3-5 repetitions on message acceptance. The commonly accepted rationale for three frequencies is that most studies on the effects of repetition show a curvilinear relationship, generally known as "wear-out effects" (Chestnut 1980).

Likability

This construct was operationalized in terms of a dichotomy. The same professional actor was instructed to play two different roles, i.e., a likable individual and a neutral one. The likable source used a soft and pleasant voice and showed a great deal of consideration for the audience, while the neutral source spoke in a natural fashion, with a rhythm in his speech intended to convey neither pleasantness nor aggressiveness. This is in accordance with the definition given by Eagly and Chaiken (1975). The actor was directed by a professional film director.

Experimental Stimuli

All messages were created specifically for the purpose of the research and used a team of professionals (e.g., an actor, a director, cameramen, editors) to produce very realistic television commercials, all being 30 seconds long.

Verbal Messages

The scenario for all the commercials was a financial executive sitting at his desk in a nicely decorated office. He introduced himself as an executive in a given financial institution. Then he gave a message on credit cards which contained five central arguments and he closed with an appeal to apply for the credit card offered by his financial institution.

Context

These commercials were inserted into a real television program dealing with economics and finance. This program lasted 30 minutes and it contained one 150-second commercial pod. Subjects in a given experimental condition were exposed to only one type of commercial (one of the two versions). The program contained one, three or five repetitions of the same commercial inserted into the existing commercial pod at the same position. For all the experimental conditions, the rest of the program was identical, including the other (non-experimental) commercials.

Subjects

Each of the six experimental conditions provided an average of 150 respondents (25 for each level of repetition) for a total of 918 subjects. All were college graduates, 48 percent were male, between the ages of 21 and 42. All were university students attending the same mandatory management course at the same level in their curriculum.

Questionnaire

The subjects were administered a questionnaire whose purpose was to measure attitude change toward credit cards as a result of the experimental stimuli. Before viewing the videotape, subjects were asked a series of questions to measure a number of variables including their attitude toward credit cards (the 'before' measure). The same questions were also asked after viewing the videotape but they were organized in a different order which was randomly determined. After being exposed to the videotape, the subjects were requested to write down all the elements of the message they could recall spontaneously. These elements could be formal (such as the speaker's tie or physical appearance), or substantive, i.e., related to the arguments in the message. In this study, only the number of arguments recalled was used: 19% of the subjects could not recall any argument, and 81% could recall at least one of the five arguments contained in the message.

The five following statements related to the attitudes toward credit cards were provided to the S's before and after they were exposed to the commercials:

- In general I like credit cards;
- I prefer to use credit cards instead of cash;
- To use credit cards is pleasant;
- I like the idea of owning a credit card;
- I prefer using a credit card to writing a check.

Respondents were asked to indicate their degree of agreement with each statement on a 6-point Likert scale. The Cronbach's alpha for these five items is 0.83, which is very good.

The average score of these five items was computed as a 'before' and 'after' attitude measure, and the difference between these two attitude scores was computed for the attitude change measure.

ANALYSIS

Manipulation Checks

First, a manipulation check was performed on the experimental conditions.

Source Likability

The level of likability of the source was manipulated so that respondents were exposed to only one of two levels of source likability: high and neutral (which serves as a control condition). Respondents were asked to indicate to which degree they agreed with the following statement: "The character (named) in the commercial could become a friend of mine." On a 6-point scale the neutral likability group scored 2.82 and the high likability

scored 4.52. This difference is highly significant ($t = 10.2$; $p = 0.00$).

Tests of Hypotheses

An analysis of variance (ANOVA) was performed with attitude change toward credit cards as the dependent variable and with repetition, likability and memorization as the three independent variables.

Results

Table 1 shows the results of the analysis of variance (ANOVA), and the results are summarized next.

Main Effects

- H₁ is rejected: the effects of likability are not significant ($F = 1.03$; $p = 0.31$).
- H₂ is rejected: the effects of repetition are not significant ($F = 1.65$; $p = 0.19$).
- H₃ is supported: the respondents having memorized at least one argument significantly changed their attitude more toward credit cards than those not having memorized any argument ($F = 4.95$; $p = 0.03$).

Two-Way Interaction Effects

- H₄ is supported: the individuals exposed to a likable source more than once showed more positive attitude change than those exposed to a neutral source ($F = 3.76$; $p = 0.02$). Moreover, as shown in Figure 1, for those exposed to the ad three times, the likable source induced significantly more attitude change toward the financial service than the neutral source ($F = 5.59$; $p = 0.02$). For both those exposed to the ad five times ($F = 0.71$; $p = 0.40$) and those exposed only once ($F = 1.31$; $p = 0.25$), no significant difference is shown between the likable and the neutral sources. The relationship between repetition and attitude change is quadratic in the case of the likable source ($F = 4.48$; $p = 0.03$ for the weighted quadratic term), and linear for the neutral source ($F = 5.68$; $p = 0.02$ for the weighted linear term).

- H₅ is supported. While memorization has no significant effect on respondents exposed to the neutral source, it has a significant effect on those exposed to the likable source ($F = 3.65$; $p = 0.06$). More specifically, as shown in Figure 2, in the case of consumers having memorized no argument the effects of likability are remarkably insignificant ($F = 0.00$; $p = 0.99$): the average scores for the two groups are identical ($X = 3.45$). However, for those who have memorized at least one argument, likability has a significant effect on attitude change ($F = 3.45$; $p = 0.07$).

TABLE 1
Analysis of Variance: Attitude Change by Likability, Repetition and Memorization

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig of F	ω^2
Main Effects	301.620	4	75.405	2.31	0.06	0.010
Likability (L)	33.746	1	33.746	1.03	0.31	
Repetition (R)	107.733	2	53.867	1.65	0.19	
Memorization (M)	161.958	1	161.958	4.95	0.03	0.005
2-way interactions	364.604	5	72.921	2.23	0.05	0.012
L x R	245.773	2	122.886	3.76	0.02	0.008
L x M	119.437	1	119.437	3.65	0.06	0.004
R x M	17.739	2	8.869	0.27	0.76	
3-way Interactions	71.636	2	35.818	1.09	0.33	
L x R x M	71.636	2	35.818	1.09	0.33	
Explained	737.861	11	67.078	2.05	0.02	0.025
Residual	29335.943	897	32.705			
Total	30073.804	908	33.121			

FIGURE 1
Effects of Repetition and Source Likability on Attitude Change

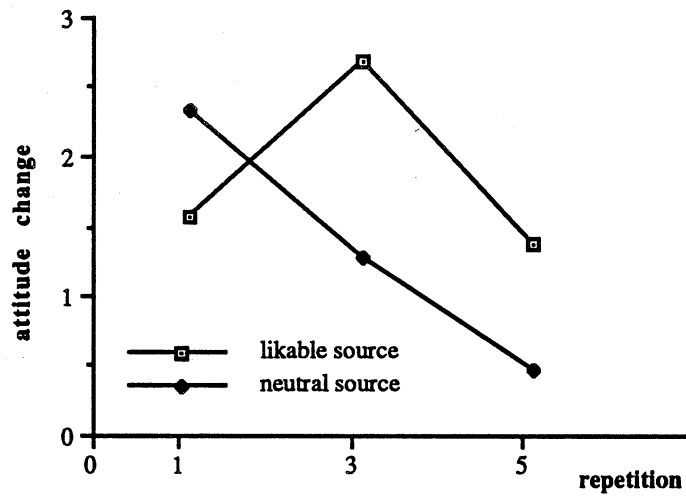
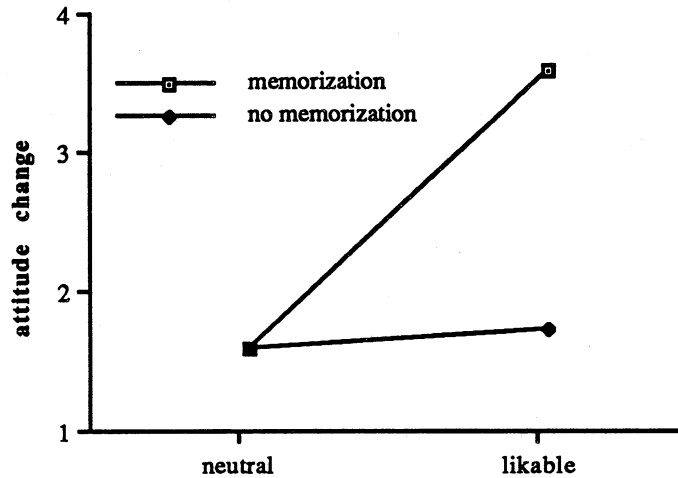


FIGURE 2
Effects of Source Likability and Memorization on Attitude Change



H_6 is rejected ($F = 0.27$; $p = 0.76$).

SUMMARY AND DISCUSSION

Contrary to previous findings (e.g., Himmelfarb and Arazi, 1974), likable sources do not score higher on attitude change than neutral sources; however, our results are in line with what Eagly and Chaiken (1975) found, i.e., if the topic is not controversial, both sources are equally persuasive.

Repetition has no direct significant effect, contrary to previous findings.

Memorization of at least one of the message arguments significantly enhances attitude change. Memorization enhances attitude change in a way which is congruent with the arguments.

Repetition and likability strongly interact: the likable source brings about more attitude change than the neutral source when the message is repeated three times. At both one and five exposures, likability does not bring about significant attitude change. What is most remarkable is that the Berlyne's curvilinear effects (inverted U shape) are found only for the likable source and not for the neutral source. In the latter case, the relation is linear: likability counterbalances the negative effects of repetition. In other words, the tedium effects generated by repetition show up earlier when the source is neutral, as predicted. The results can be interpreted as follows: from 1 to 3 exposures, repetition increases the feeling of familiarity with the message and reinforces the link between the positive affect toward the source and acceptance of the arguments (Moreland and Zajonc, 1979); from 3 to 5 exposures, familiarity turns into boredom: all the formal cues (such as the speaker's physical appearance) serve to confirm that this is the same ad once again. If, as suggested by Hirschman and Holbrook (1982), a commercial is a "psychological reward," its utility decreases after a certain threshold of repetition. Thus, excessive repetition leads to a reduction in the positive effects of likability but not

in the memorization of the arguments, which explains why the 3-way interaction is not significant ($F = 1.09$; $p = 0.33$).

Likability and memorization significantly interact. Memorization enhances attitude change in the case of consumers exposed to a likable source but not in the case of those exposed to a neutral source. One interpretation is that the likable source acts as a node, in the sense used by Bower (1981): pleasant feelings toward the source are associated with the arguments contained in the message. The association, when it exists (i.e., the arguments are memorized and are provided by a likable source), makes the arguments more persuasive since their effect is positive. The relationship gives the arguments the same emotional tone as the source itself. In the case of the attractive source, it could be assumed that the receivers' moods were enhanced by their positive identification with the source which then could have focused their attention on the positive elements of the message. Thus, as suggested by Forgas and Bower (1988), better integration and recall of the arguments would result; the positive emotion may bias the recalled arguments to produce a positive attitude. Memorization alone is not a panacea: it enhances positive attitude only when the message arguments are associated with a likable source.

Memorization and repetition do not interact significantly because repetition enhances memorization ($\chi^2 = 17.82$; $p = 0.00$). Their effects are additive. However, for the groups exposed five times to the same message, the non-memorization group scored significantly higher than the memorization group ($F = 3.95$; $p = 0.05$). It can be surmised that, as suggested by Cacioppo and Petty (1979), repeated arguments which are also memorized are mentally reviewed and criticized: counter-arguments are generated which reduce the level of attitude change. Repetition makes the counter-arguments more

available which were left latent at lower levels of repetition.

CONCLUSION

A likable source enhances attitude change only through the mediation of memorized arguments or repetition of the arguments. It has no direct effects. Likable sources are no substitute for adequate argumentation: advertisers cannot simply invest in likable characters and presume their persuasive strategy to be a probable success. Likable sources can counterbalance the negative effects of repetition but only to a certain extent: beyond three repetitions, the effects of likability appear to be cancelled.

Memorization of the arguments in the message is not a panacea either: repetition may be more likely to generate counterarguments, if some arguments are memorized and more easily available for a critical assessment. When associated with a likable source, memorization appears to lead to a more positive attitude toward the message.

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The Effects of Message Valence on Inferential Processes

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Although inferential belief formation and inferential belief change processes have frequently been investigated, there remains a gap in our knowledge about the naturally occurring conditions that may lead to their activation. In this paper we explore the effects of message valence on inferencing behavior. Empirical evidence suggests that negative information may be effective in stimulating inferential reasoning. Results concerning the effects of positive information cues were inconclusive.

In recent years a number of researchers have examined inferential processes by which consumers expand upon given product information in order to form new beliefs (Ford and Smith 1987; Gardial and Biehal 1987; Huber and McCann 1982; Johnson and Levin 1985; Simmons and Leonard 1990) or modify existing beliefs (Kaplan 1972; Lutz 1975a, 1975b; Yi 1990a, 1990b) about attributes that are unknown or are unmentioned in a communication. Although there is mounting evidence that inferencing can have a strong effect on consumer judgments, it is clear that inferential processing does not always occur spontaneously (Lim, Olshavsky, and Kim 1988; Simmons and Lynch 1991). Investigators thus have begun to search for environmental factors that may provide an impetus for inferential reasoning. In the research reported here, we examine the effects of message valence on inferential belief change processes. Empirical evidence suggests that negative messages may be effective in stimulating inferential thinking.

WHAT CONDITIONS STIMULATE INFERENTIAL PROCESSING?

In a communications context, inferencing occurs when consumers expand upon the attribute information provided in a message so as to form new beliefs or update their existing beliefs about attributes that are not mentioned in the message. Inferred attribute values are likely to be either probabilistically (i.e., correlational) or evaluatively consistent with the attribute claims made in the communication (Fishbein and Ajzen 1975). Although both probabilistic and evaluative inferencing strategies have been observed empirically, it has been suggested that the former are more common, particularly when attribute correlations are high (Fishbein and Ajzen 1975; Gardial and Biehal 1987).

On the basis of this suggestion, it seems reasonable to expect the likelihood of inferencing behavior to be positively related to the strength of the correlations among mentioned and unmentioned product attributes (Huber and McCann 1982). Empirical tests of this proposition, however, indicate that high correlations are not a sufficient condition for the onset of inferential reasoning. Although the magnitude of inferred attribute values has been found to covary with the strength of attribute correlations when probabilistic inferencing is observed (Ford and

Smith 1987; Yi 1990b), several researchers have failed to find evidence of spontaneous inferencing behavior in a context where attribute correlations were strong (Lim et al. 1988; Simmons and Lynch 1991).

Others have reasoned that environmental factors must lead consumers to think about unmentioned product attributes or about attribute correlations in order to stimulate inferential processing (Hansen and Zinkham 1984; Huber and McCann 1982). In accordance with this view, Yi (1990b) found significant effects of visual advertising cues in prompting inferential belief change. Apparently, visual cues were effective in leading message recipients to think about the unmentioned attributes and to update their beliefs accordingly. Similarly, Kardes and Strahle (1986) found evidence of inferential belief formation when the perceived technicality of product information was moderate, but not when it was high or low. In this case it seems that subjects were motivated to process the given information deeply, thus prompting inferential thinking, when the information offered new insights which subjects felt capable of understanding. When information was uninformative or overly complex, processing motivation was reduced.

On the other hand, there have been studies where proposed environmental factors have failed to elicit inferencing behavior. Simmons and Lynch (1991) found very little incidence of inferencing activity in a study where competitor communications were used to increase the salience of a target brand's unmentioned attributes. Zwick (1988) similarly failed to find systematic effects of information format (brand dominant, attribute dominant, or matrix format) on the way that subjects accessed information items and subsequently used them to guide inferential reasoning. Moreover, a substantial proportion of Zwick's research subjects (14 out of 37 who were not prompted) showed no signs at all of spontaneous inferencing activity.

In light of the mixed evidence regarding specific environmental factors Dick, Chakravarti, and Biehal (1990) have argued that consumers will engage in inferencing activity only when 1) the unmentioned attribute information is noticed and is sufficiently relevant to motivate efforts to impute its value, 2) an inferencing rule and the necessary supporting information are readily accessible in memory, 3) the inferencing rule is perceived to be capable of generating diagnostic inputs for the decision task at hand, and 4) other diagnostic inputs to the decision are not as readily accessible or available from external sources (Feldman and Lynch 1988; Lynch, Marmorstein, and Weigold 1988). Dick et al. support this view with the results of an experiment where inferencing instructions were varied and information accessibility was manipulated. When subjects were not explicitly instructed to infer missing attribute values, inferencing behavior was not uniformly observed. Inferencing effort was greatest, however,

when prior brand evaluations were favorable rather than unfavorable, and attribute information was highly accessible from memory. Unfavorable prior evaluations apparently decreased subjects' interest in a given choice alternative, thus reducing the relevance of an inferencing strategy for subsequent choice deliberations. Low attribute accessibility apparently decreased the perceived diagnosticity of an inferencing rule.

The Dick et al. (1990) framework sheds light on previous failures to stimulate inferencing activity in the laboratory. For example, many subjects in the Simmons and Lynch (1991) study failed to note the absence of target attribute information. Moreover, of those who did notice, some probably lacked access to an inferencing rule linking the predominantly tangible product features used as stimulus attributes. Simmons and Lynch (1991) and Lim et al. (1988) note that inferences pertaining to tangible product features are less common than those pertaining to a price/quality relationship. This is not surprising given that price/quality relationships are observed in many product categories, leading to a highly accessible rule linking the two characteristics. For tangible product features, on the other hand, less frequent observations of attribute associations render inferencing rules less readily accessible. When subjects in the Simmons and Lynch study were induced to repeatedly make similar product evaluation decisions, their awareness of missing information and attribute correlations was likely increased. Consistent with the Dick et al. (1990) framework, inferencing behavior also increased (Experiment 3).

Simmons and Leonard (1990) further point out that, of the inferences made by subjects in the Simmons and Lynch (1991) study, a probabilistic consistency rule tended to apply when attribute correlations were expected to be high. When no attribute correlations were expected, probabilistic inferences were rare. Thus, despite the low overall incidence of inferencing behavior, subjects seemed most willing to use a probabilistic inferencing rule when it was expected to yield diagnostic conclusions.

The Effects Of Information Valence: Following the Dick et al. (1990) framework one would expect that any factor which increases the relevance, the accessibility and/or the diagnosticity of an inferencing rule will increase the likelihood that inferential processing is observed. One such factor might be information valence. The disproportionate influence of negative information on consumer judgment tasks has been documented repeatedly (see Kanouse 1984 for a review of the negativity literature), and there is evidence that inferencing activity may be sensitive to negativity effects. Lutz (1975a), in an early study, found that negative messages stimulated stronger changes than positive messages in an index of total cognitive structure. It appears that inferential belief change may have been stronger in response to the negative stimuli, although it is difficult to verify this conclusion as individual belief changes were not reported in the paper. Mizerski (1982) later found that inferential belief formation was stronger in response to negative rather

than positive information in a context where inferences were prompted explicitly by the researcher. Finally, Wansink (1989) found that negative information about the source of a message led subjects to make negative attributions as to why the source omitted attribute information from its advertisements. These negative attributions had an adverse effect on product evaluations, particularly when the unmentioned attributes were covariant with those actually mentioned in the ad. The significant covariance effect suggests that inferencing behavior might have mediated the source effects on product evaluations.

It is possible that negative information would stimulate inferencing behavior because of the way that it is processed by message recipients. Fiske (1980) has argued that negative information is allocated greater attention and is processed more deeply than is positive information. There are many reasons why this might be so. First, negative information may be more rare or atypical than positive information (Boucher and Osgood 1968; Fiske 1980; Zajonc 1968), or it might be less consistent with prior product beliefs. Alternatively, negative product aspects may interfere with the enjoyment of positive product aspects, or individuals may find it risky to ignore the implications of negative claims (Kanouse and Hanson 1972). Although these conditions are not likely to hold in all situations (e.g., when negative information is consistent with prior beliefs because it refers to an already disliked brand, or when negative information is typical, as might be the case for comparative advertisements), they can reasonably be expected in many consumer communication environments.

Although there are differences among these conditions, each represents a motivating reason for the individual to review his beliefs and knowledge about the object of the communication. In the first set of conditions, a review of prior beliefs might serve to check the veracity of the new information and the prior beliefs. In the second set of conditions, a review of prior beliefs might serve to weigh the implications of those beliefs against that of the new information. In either event, negative information increases the likelihood that message recipients will compare the new product claim to previously learned brand information.

One outcome of such a comparison procedure is likely to be an increase in the accessibility of brand attribute information. A second outcome is likely to be heightened recognition of the extent to which the new information deviates from prior product beliefs. In the event that the negative information is judged to be valid, deviations from prior beliefs would create pressure for the individual to change those prior beliefs. Negative information thus may increase the relevance to message recipients of an inferential belief change strategy for modifying product evaluations.

Given the diagnosticity of a probabilistic inferencing rule for updating attribute beliefs, recipients of negative messages may be encouraged to seek the correlation information which, when combined with accessible brand attribute information,

would enable them to make probabilistic inferences. Following Dick et al. (1990) we would expect such a search for correlation information to lead negative message recipients to perceive stronger correlations among the attributes of the target product category. As positive messages are more likely to be subject to cursory processing effort (Fiske 1980), message recipients may be less likely to note deviations between positive messages and prior beliefs. Consequently, the perceived relevance of an inferential belief change strategy may be lower following positive information exposure, and recipients may be less likely to seek correlation information.

HYPOTHESES

On the basis of the preceding discussion, two research hypotheses were formed. The first follows from the argument that negative information increases the relevance of an inferential belief change strategy for the modification of brand evaluations. Given high perceived diagnosticity of a probabilistic inferencing rule, message recipients are expected to search for correlation information which would facilitate implementation of such a rule.

- H1: Recipients of negative information about a given product attribute will perceive stronger correlations between that attribute and others of the target product category than will recipients of positive attribute information.

As a result of the search for correlation information, the informational inputs to a probabilistic inferencing rule should be highly accessible to the message recipient. The likelihood of observing probabilistic inferencing behavior in this situation is high.

- H2a: Individuals exposed to negative information will be more likely than those exposed to positive information to exhibit inferencing behavior.
- H2b: Inferential processing in response to negative information will conform to a probabilistic consistency rule.

METHOD

Subjects and Procedure

An experiment was conducted to test the above hypotheses in a context where attribute information was provided for previously known brands. The focus of the study was on inferential belief change processes rather than inferential belief formation. Subjects were 56 undergraduate and graduate students at two U.S. universities who were recruited from announcements placed on campus. Each person was paid \$7 for participating in the study, and his/her name was entered into a lottery for a larger cash prize.

The research design was a two-group pretest-posttest in which groups were exposed to stimulus messages differing in valence. Subjects were told that

the purpose of the study was to examine the effects of independent laboratory testing reports on consumer perceptions and opinions. Their first task was to rate a set of 11 adult cereals (one of which was the target brand for the experimental manipulation) on 7-point semantic differential scales labelled "very low/very high in sugar", "very low/very high in calories", "not at all/very nutritious", and "not at all/very pleasant in taste".

After completing a filler task unrelated to the study's purposes, subjects were asked to examine a rating form which, they were told, had appeared in a laboratory testing report. This form, which presented the stimulus message, rated the target brand as being either very low or very high in sugar content. Following their review of the stimulus materials, subjects were asked a series of questions concerning the perceived credibility of the testing laboratory and of the laboratory report. Next, they were asked once again to rate the target brand in terms of sugar content, calories, nutrition, and taste using the 7-point scales described above. Finally, following a format described by Ford and Smith (1987), subjects were asked to indicate (on a 10 point scale) how likely it is that they could predict the level of the other cereal attributes given knowledge of a brand's sugar content. Responses to this question were divided by 10 to serve as post-message measurements of the strength of perceived correlations between sugar and the other cereal attributes.

Stimulus Materials

Pretesting revealed that the target cereal brand was perceived to be moderate in sugar content (3.36 on a 5-point scale). Furthermore, pretest subjects perceived sugar to be strongly correlated with calories, moderately correlated with taste and weakly correlated with nutrition. This pattern of correlations allows for differences in the magnitude of belief change across the three attributes following the application of a probabilistic inferencing rule. In this event, the relative magnitudes of observed belief changes would be expected to correspond to the relative magnitudes of perceived correlations with sugar (Ford and Smith 1987). That is, observed belief changes would be strongest for calories and weakest for nutrition. If inferencing followed an evaluative consistency rule, there would be no differences in the magnitudes of the observed changes across the three attributes. On the basis of this difference in the hypothesized effects of the two inferencing rules, sugar was considered to be an appropriate attribute for testing hypothesis 2b. Accordingly, sugar was selected as the stimulus attribute for experimental messages, and belief changes pertaining to calories, taste, and nutrition were measured as dependent variables.

After rescaling, the target brand was found to be rated 4.5 on a 7-point scale of sugar content. Equal polarity of positive and negative stimulus messages was attained by rating the target brand of cereal either as 2 (very low in sugar) or as 7 (very high in sugar) on a 7-point rating scale. As pretest subjects had indicated that the ideal level of sugar in a cereal was 2.98 on a 7-point scale, a rating of 2 for the target

brand was expected to be seen as a positive message whereas a rating of 7 was expected to be seen as negative.

RESULTS

Manipulation Check

Subjects' perceptions about attribute correlations were checked to be sure that they were similar to those of the pretest sample. Correlations were calculated from subjects' brand by attribute ratings of the 11 adult cereals. The average correlation between sugar and calories was 0.67; that between sugar and taste was 0.24, and that between sugar and nutrition was -0.15. This pattern matches that of the pretest sample, suggesting that perceptions of attribute correlations are reasonably stable for the adult cereal category.

A second check sought to verify that the stimulus messages had changed subjects' beliefs about the sugar content of the target brand. Subjects receiving the negative (high sugar) message significantly increased their sugar ratings of the target brand (average increase 1.21, $t_{54}=4.93$, $p<.001$), indicating a successful belief change manipulation. Subjects receiving the positive (low sugar) message, on the other hand, failed to significantly change their beliefs about the brand's sugar content (average decrease 0.07, $t=-0.23$, $p<.82$).

This unexpected failure of the positive manipulation weakens our planned tests of hypotheses 1 and 2a. The failure suggests either that subjects processed the positive message but subsequently rejected it as inaccurate or untrue, or that they simply failed to process the message very deeply. The first possibility seems unlikely in light of the result that subjects perceived the positive message to be as credible as its negative counterpart (4.63 and 4.45, respectively, on a 7-point scale; $t_{54}=0.45$, $p=0.65$). The second possibility seems more likely. Fiske (1980) has argued that positive information attracts less attention than negative information, and that it is correspondingly subject to more shallow processing mechanisms. In this case, processing of the positive stimulus message may have been especially low. Why this would be so is unclear. It is possible that subjects in this study classified cereal brands into wide categories of sugary/non-sugary, with the result that the target brand was seen as a low sugar brand, despite its moderate sugar ratings. In this situation, any low sugar message might have matched subjects' expectations to such an extent that it would be subject to little attention.

Limited processing of the positive claim would make a subsequent search for correlation information unlikely. This in turn would render inferencing behavior unlikely. The hypothesized effects of a weakly processed positive message thus are no different from those hypothesized for a stronger positive claim, and the planned tests can still be conducted. In this case, however, the tests will be conceptually similar to a one-sided test which compares a negative message to a null situation where no targeted belief change activity is observed. It will

be impossible to draw conclusions about inferencing behavior under conditions of positive change in a targeted attribute belief.

Test of H1

The first hypothesis states that subjects exposed to a negative stimulus message will perceive stronger correlations among the cereal attributes than will those exposed to a positive stimulus message. In contrast to the hypothesis, however, differences in post-message ratings of attribute relationships across the two groups were directionally correct for each attribute, but none of the effects attained statistical significance. Perceived correlations between sugar and calories were 0.81 and 0.77 for the negative and positive groups, respectively ($t_{54}=0.69$, $p<0.50$), those between sugar and taste were 0.72 and 0.69, respectively ($t_{54}=0.49$, $p<0.63$), and those between sugar and nutrition were 0.62 and 0.58, respectively ($t_{54}=0.49$, $p<0.63$). The first hypothesis thus is not supported by these data.

Perceived Correlations. It was observed in the test of the first hypothesis that subjects' stated perceptions about correlations between sugar and nutrition and between sugar and taste were much higher than those calculated from their ratings of the 11 cereal brands. Although this result was unexpected, it makes sense with a bit of reflection. It appears that subjects saw little covariance among the attributes in the sample of adult cereals tested, but they did expect a relationship for cereal brands in general. As questioning did not specify that subjects should think of the adult cereal sub-category, their answers evidently pertain to the cereal category as a whole.

This result is not problematic for testing the first hypothesis unless it is believed that a post-message search for correlation information would be restricted to the adult cereal sub-category. This seems unlikely in light of spreading activation theories of memory processes (e.g., Anderson 1983) which suggest that, even if sub-category perceptions of attribute associations were activated initially, links between perceptions at various product levels would eventually lead to activation of them all. In the experiment reported here, ample time had elapsed between delivery of the stimulus message and measurement of perceived correlations to allow for activation of the broader network of information.

A more interesting question arises with respect to testing the second set of hypotheses. If message recipients have ready access to information about attribute associations at both the category and the sub-category levels, either set of information could be used as an input to an inferencing rule. In the present case, it might be expected that subjects' category-level perceptions of strong associations between sugar and taste and between sugar and nutrition would lead to strong inferential changes in their beliefs about these attributes in response to a strong sugar message. Alternatively, it might be expected that perceptions of weaker relationships at the sub-category level would lead to weaker inferential changes. Although we are unaware of any prior studies that have looked explicitly at this question, it would seem that sub-

TABLE
Observed Changes in Cereal Attribute Beliefs

Attribute	Average Correlation With Sugar (Across 11 Brands)	Observed Belief Change	
		Negative Information (High Sugar) Condition n=29	Positive Information (Low Sugar) Condition n=27
Sugar		1.21 ***	-0.07
Calories	0.67	0.48 **	-0.26
Taste	0.24	0.34 **	0.11
Nutrition	-0.15	0.17	0.00

*** significant at $p < .001$
** significant at $p < .05$

category perceptions would lead to more diagnostic inferences, and thus would be preferred as an input to decision making. In that case, we would expect relatively weak inferencing behavior with respect to the nutrition and taste attributes.

Tests of H2a and H2b

The second hypothesis requires that inferential belief change be observed in the negative, but not the positive, message condition. Subjects exposed to positive messages thus should exhibit no significant changes in their beliefs about the level of calories, taste, or nutrition exhibited by the target brand. Additionally, H2b requires that inferencing behavior in the negative message condition follow a probabilistic consistency rule. The relative magnitudes of the belief changes observed in the negative message condition thus should correspond to the relative magnitudes of the correlations among the respective attributes.

As sugar and calories consistently were perceived to be strongly related it was expected that subjects in the negative message condition would exhibit large, significant changes in their beliefs about the caloric content of the target brand. For the taste and nutrition attributes, predictions were made on the basis of sub-category perceptions of attribute correlations since these were expected to be more diagnostic than those at the category level. It thus was expected that observed belief changes would be moderate for taste and small for nutrition. The weak sugar/nutrition correlation suggests that the magnitude of the change in nutrition beliefs will fail to reach statistical significance. It is more difficult, however, to predict whether belief change will be significant for taste. No specific predictions were

made for this question since greater insight was expected to come from comparing the relative magnitudes of the belief changes rather than their significance levels.

Belief changes were calculated for each attribute by subtracting pre-message ratings of the target brand's attribute levels from their post-message equivalents. The table shows the magnitude of each observed change for both of the experimental groups. As expected, no significant inferencing was detected among subjects in the positive information condition. In contrast, subjects in the negative information condition significantly changed their beliefs about the levels of calories and taste exhibited by the target brand. The results are supportive of the second hypothesis in demonstrating that negative information prompted significant, systematic changes in non-targeted attribute beliefs whereas the positive message prompted no significant effects. Although the failure of the positive manipulation renders the test inconclusive regarding the effects of a positive targeted belief change on inferencing behavior, the lack of significant effects in the positive condition increases our confidence that the inferencing observed in the negative condition was more than a random event.

As seen in the table, the relative magnitudes of the observed belief changes in the negative message condition conform to the relative magnitudes of the perceived correlations among the attributes of the 11 adult cereal brands. These results are strongly supportive of part two of the second hypothesis. If an evaluative consistency rule had been followed, all beliefs would have changed in an unfavorable direction. Further, the magnitude of observed changes would have been similar across the attributes. The

observed differences in magnitude and the more favorable ratings of the target brand's taste make it unlikely that an evaluative inferencing rule was followed.

The observed differences in inferencing magnitude also make it unlikely that category level perceptions of attribute correlations were used as an input to the inferencing process. The use of sub-category correlations is consistent with the Dick et al. (1990) argument that the choice of an inferencing rule will be influenced by considerations of rule diagnosticity. In this case, inferences drawn from the adult cereal sub-category would be more diagnostic than those drawn from the cereal category considered as a whole.

DISCUSSION

The experiment provides evidence that negative information may stimulate inferential processing, although the reasons for the effect remain unclear. Subjects who saw negative brand information did not perceive stronger attribute correlations than those who saw positive brand information. There thus was no evidence that negative message recipients were more likely than positive message recipients to actively seek correlation information. This lack of support for the first hypothesis is especially noteworthy in light of the failure of the positive manipulation. If negative information fails to increase the strength of perceived correlations over the level realized by a weakly processed positive message, it is unlikely to be more effective in relation to a stronger positive message which is subject to heavier processing.

On the other hand, tests of the second hypothesis suggest that perceived correlations were accessible to subjects in the negative message condition. Without access to this information it is unlikely that subjects would have followed the hypothesized probabilistic inferencing strategy. Combined, then, the two hypothesis tests suggest that attribute correlations were accessible to subjects in both information conditions. It is possible that in questioning the positive message recipients about attribute correlations, the experimental procedure led them to seek correlation information. The similarity of responses across the two groups thus may reflect testing effects rather than an error in the logic supporting the first hypothesis. Future research should seek to reexamine this question using less problematic measures of the mechanisms underlying the inferencing process.

An additional question arose during hypothesis testing pertaining to whether inferential reasoning would be based on perceived attribute associations within the entire product category, or on those within a subset of the category to which the target brand belonged. In the present case, the latter appears to have held. The result is consistent with the argument made by Dick et al. (1990) that the inferencing rule which produces the most diagnostic conclusions will be selected. In addition to bolstering support for the Dick et al. framework, our finding should serve as a warning to others who work in this area that the

appropriate category level must be used to make inferencing predictions.

Limitations

The failure of the positive manipulation to change a targeted attribute belief made comparison of the negative and positive message conditions less informative. Conclusions about the effects of message valence on inferencing behavior thus must be made with care. In this research only negative information stimulated inferencing activity. It is possible, however, that the frequency and nature of inferencing behavior would have been the same in the positive information condition if the manipulation had realized greater success.

The study was further limited to product information delivered in the form of a laboratory testing report about a single product category. It may be that negative information from other sources or concerning other product categories would be less effective than that presented here. The laboratory report was judged to be reasonably credible by both groups of research subjects. Other sources clearly would be less credible as providers of both positive and negative information. In such an event, the interaction of source credibility and information valence might yield outcomes that differ from those reported here.

Another question to be explored in future research is that of how inferencing behavior would change if subjects' expectations about message valence were violated. If positive messages were delivered by unlikely sources (such as competitors) or positive information were very extreme, the atypicality of the situation might make positive information a sufficient stimulus for inferencing behavior. Alternatively, if negative information were delivered in a context where it was expected (such as in comparative advertisements), inferencing might not result. These unanswered questions highlight the need for additional research into the mechanisms that underlie inferencing behavior.

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Attention, Memory, Attitude, and Conation: A Test of the Advertising Hierarchy

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One of the earliest theories of how advertising works was the hierarchy of effects model (Lewis, 1898). This model posits that the processes of *attending* to a commercial, *learning and remembering* its content, developing *attitudes*, and generating *conative* responses occur in a sequential causal chain. Lavidge and Steiner (1961) articulated a relatively recent version of the hierarchy model. They suggested that the steps in responding to advertising included: awareness of the ad, knowing what the brand has to offer, liking the brand, preferring the brand to competitors, conviction about the purchase, and purchase. Although advertising texts (e.g., Bovee & Arens, 1982; Wells, Burnett, & Moriarty, 1989) do not always specify a particular theory when they talk about how advertising works, they too suggest that first the ad must catch and hold attention. Then people must comprehend and remember its contents. Next, there must be attitudinal impact, and finally, conation.

Thus much of the scientific and heuristic literature of advertising theory adheres to the notion that responses to commercials fall into a single causal flow of effects. That is, no matter how complicated or simple, hierarchy models all derive from the central assumption that to be effective, advertising must "move people through a series of processing steps." In addition to positing a series of processing stages, hierarchy models also assume (Preston and Thorson, 1983) that to claim that a commercial has been effective, *each* step in the hierarchy must occur and it must occur in the *specified order*.

But is it true that an ad must propel people through these steps in order to reach conation? Graphic representation of this idea is shown in Figure 1. This model basically suggests that first there is attention to the ad. As a result, a memory for it is created. Based on the content of that memory, attitudinal responses develop, and as a result of these attitudes, conation eventually occurs.

To evaluate the model of Figure 1, we must examine the links between contiguous stages in the hierarchy. There is significant support in the literature that attitudinal and conative responses are correlated with each other. Indeed, a recent highly publicized finding sponsored by Advertising Research Foundation has shown that the best predictor of purchase is liking for ads. (Haley, 1990).

The link between memory and attitudinal responses is problematic. Gibson (1983) criticized the use of recall measures to evaluate ads because of the "common finding" that recall has little or no correlation with consumer choices in the marketplace. However, Stewart (1986) has presented compelling evidence that commercials that are well-recalled and comprehended and which present a message that clearly differentiates the brand, do score higher on persuasion. His findings suggest, in fact, that perhaps

a number of variables that increase the impact of processing may lead to commercial memory being correlated with persuasion.

The relationship of attention to the other steps of the hierarchy is also unclear. MacKenzie (1986) demonstrated that attention to a brand attribute in an ad affected perceived importance of that attribute. His study did not look at the subsequent impact on attitude. Olney, Holbrook, & Batra (1991) showed a close link between attention and attitudinal responses when attention was measured as the amount of viewing time people give the ad when they have the opportunity to zip the ad instead of watching it. This study did not, however, look at memory. Thorson, Zhao, & Friestad (1988) showed strong links between attention and memory when attention was measured as the percent of time people actually watched the TV screen. There were not, however, significant links between attitude toward the ad or brand and the eyes-on-screen measure of attention. The authors suggested that attention affects memory because without watching, input is drastically reduced and there is nothing to remember. However, once people watched a commercial, their attitudes were influenced by the attributes of the ad, eliminating the impact of simply attending to the ad.

Attributes of Ads

Perhaps most importantly in the hierarchical schema, however, are attributes of the ad itself and how well each of these attributes predict the various responses to the ad: attention, memory, attitude and conation. Probably the most studied link in recent studies has been between ad attributes and attitudinal responses. Many studies have looked at the emotional attributes of ads and attitudinal responses (e.g., Stayman and Aaker, 1987; Edell and Burke, 1987; Thorson & Friestad, 1989). Holbrook and Batra (1987) showed that ad content measured as emotional, threatening, mundane, sexy, cerebral, and personal predicted both pleasure and arousal responses to ads and attitude toward the ad and brand. Other attributes of ads examined for their links with attitudinal impact have included informational and transformational appeals (Edell & Burke, 1987), and presence and type of illustrations (Mitchell, 1986).

There have also been studies of ad attributes and memory. One of the earliest attempts to predict recall of TV commercials was by Haller (1972). He used experts' judgments of four commercial dimensions: (1) the extent to which the visual aided the audio in getting the message across; (2) the stopping power of the message, (3) message clarity, and (4) the extent to which the message spoke personally to the viewer. Thorson and Snyder (1984) and Thorson (1983) used predictions from a psycholinguistic model of comprehension (Kintsch & van Dijk, 1979) to predict

FIGURE 1
The Hierarchic Models of Advertising Effects

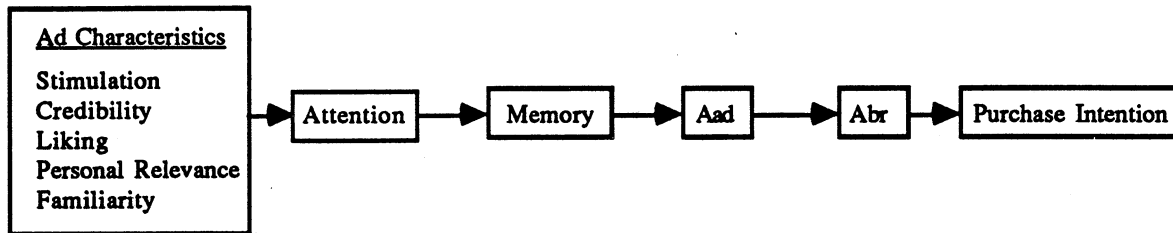


Figure 1a: The Classic Hierarchic Model of Advertising Effects

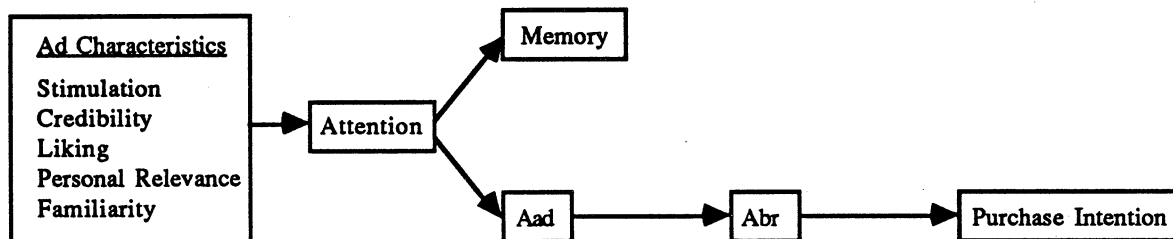


Figure 1b: The Two-Route Hierarchic Model of Advertising Effects

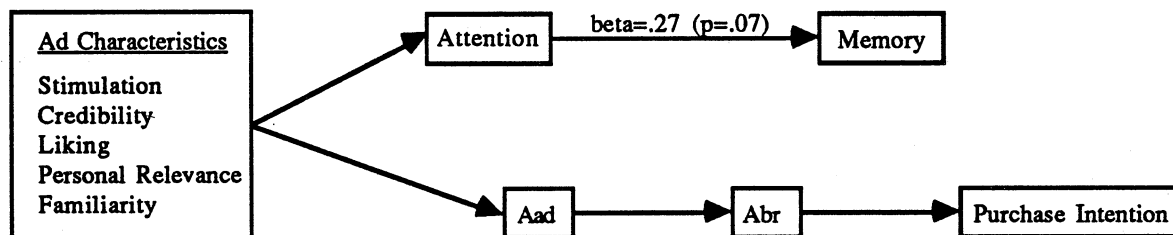


Figure 1c: Significant Relationships among Components of the Advertising Hierarchy Based on the Whole Sample of Commercials

industry measures of recall for commercials. Measures such as the number and arrangement of idea units in the scripts predicted about 33 percent of the variance in recall scores.

In experimental studies of consumer responses to television commercials, Thorson & Friestad (1989) and Thorson & Page (1990) have shown that commercials that create emotion in viewers are better recalled than commercials neutral in emotional impact.

Other studies have examined the impact of ad attributes on both memory and attitude. Stewart and Furse (1985, 1986) defined 153 variables and used them to predict Research System Corporation's three (ARS) measures of ad effectiveness: recall, key message comprehension, and persuasion. After removing product category effects, Stewart and Furse found variables that accounted for 13 to 26 percent of the variance in recall, 8 percent of the variance in key

message comprehension, and 9 to 11 percent of the variance in persuasion. This aspect of the impact of ad attributes is important. McGuire (1969), another of the hierarchy theorists, pointed out that the different stages in the hierarchy are influenced by different aspects of ad structure. For example, attention may be increased by such ad variables as color, brightness contrast, camera movement, and gender of speakers. But memory may be increased by such variables as repetitiveness in the script, simplicity, and novelty. Although each stage in the hierarchy of effects operates contingently on the stage prior to it, it also is influenced by different ad attributes than the stages preceding and following it.

Indeed, the notion that different attributes of commercials differentially affect success in transiting different stages in the hierarchy has driven many attempts to build lists of attributes of commercials that will lead to "successful" consumer responses at

FIGURE 2
The Two-Route Hierarchic Models of Advertising Effects: Emotional vs. Nonemotional commercials

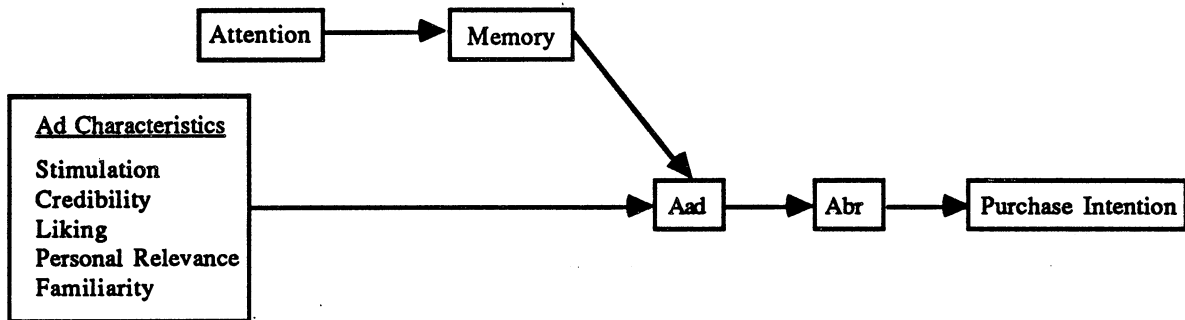


Figure 2a: The Two-Route Hierarchic Model for Emotional Commercials

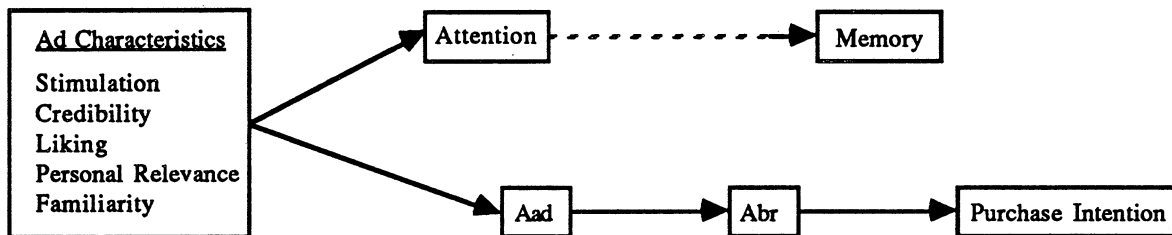


Figure 2b: The Two-Route Hierarchic Model for Nonemotional Commercials

various levels of the hierarchy--memory, persuasion, and liking for commercials. The search for a complete specification of all ad attributes relevant to eventual impact is termed "copy testing," and of course this area of advertising research also has a long history.

In the copytesting tradition, but emphasizing the hierarchical nature of responses to ads, Leavitt (1970) presented people watching ads with 52 adjectives that he found most used by consumers in focus groups. Leavitt expected that the dimensions that would emerge from factor analysis of the adjectives would reflect the four stages of the basic hierarchy model: attention, learning or memory, attitude change, and conative impact. Four dimensions did emerge. They included: Stimulation (amusing, energetic, novel, slow, and worn out); Relevance (convincing, credible, relativistic, irritating, and confusing); Gratification (agreeable, attractive, tender, warm); and Familiarity (well-known, new, saw before). In validation studies with the four dimensions, Leavitt found that Stimulation was related to attention. Relevance was related to attitude and conation. However, none of the four dimensions was related to memory.

The four dimensions from Leavitt's study have face validity; that is, they appear to be reasonable responses to commercials. They also find much support in the copy-testing literature (e.g., see Ju, Stout, & Leckenby's review (1990) of copy research). The items also seemed to relate to the critical stages of

the hierarchy model. Thus it was the 52 items that made up Leavitt's original system that were employed in this study.

Models and Research Questions

The main thrust of the study reported here was to test the predictions of the quintessential hierarchy model of advertising effects. This model posits that ad characteristics will drive attention to the ad, which will in turn affect memory for the ad, and then attitude toward the ad and its brand, and finally, conative responses to the ad. Based on the uncertainties about the mediating relationships of these variables reflected the literature reviewed above, a second form of hierarchy was also deemed important to test. Specifically, the impressive literature demonstrating that memory and attitudes are not correlated suggests the model depicted in Figure 2. In this model, there are two routes of responses to ads: (1) the comprehension/learning route and (2) the evaluative route. In the learning route, ad characteristics drive attention, which in turn determines comprehension and memory. In the evaluative route, ad characteristics drive attention, which in turn determines attitude toward the ad, attitude toward the brand, and intention to purchase. Under this model, ads that are remembered are not necessarily those that create desire and intention to purchase.

A second thrust of the study was to ask whether the same form of the model was applicable both to ads

that created emotion and those that did not. When an ad creates emotion in the viewer, the memory engram for the experience is enhanced over non-emotional conditions (Squires, 1986; Mishkin, Malamut, & Bachevalier, 1984). The engram is stronger in that recall likelihood is higher (Thorson & Friestad, 1989), and the engram is richer in the sense that viewers can report more information about the ad. The engram also contains residue from the experience of the emotion itself and thus is affectively charged. This means that the emotion itself can serve as a recall cue (Clark & Teasdale, 1985; Page, Thorson, & Heide, 1990). Given the enhanced salience of the engram created by emotional commercials, it seems likely that the engram would be more likely to affect attitudinal responses. Actually, Stewart's (1986) finding that ads leaving stronger memory traces and having more brand differentiating impact are more likely to produce greater persuasion is consistent with this view of the impact of emotion stemming from a commercial. We therefore expect that there is more likely to be a direct link between memory and attitudes for the emotional commercials, that is, they will show a pattern more like the classical hierarchy. This result is not expected for nonemotional commercials.

Concepts and Measurements

The concepts employed here included all the steps hypothesized in the hierarchy models. A brief theoretical and methodological explication for each concept follows.

Attention

There are many ways to conceptualize people's attention to television and television commercials. Attention can be thought of as how often people look at the screen under natural and free viewing conditions (e.g., Anderson & Lorch, 1983). Attention can be thought of as how much time people voluntarily watch a commercial when they are enabled to avoid it if they prefer (e.g., Olney, Holbrook, & Batra, 1991). Or, in a forced viewing situation, attention can be conceptualized as the intensity with which people experience their viewing (e.g., Reeves & Thorson, 1986). All three of these conceptualizations seem legitimate and important. Methodologically, however, the simplest of these definitions to operationalize is the third one, and for that reason, the self-reported intensity of watching was employed here.

Memory

Memory can also be defined in a number of different ways. Perhaps the most difficult and challenging memory task for viewers of commercials is to free recall ads. In this task, the subject must provide his/her own cues for remembering. This means the recall task is also the most free of the biasing impact of cues such as product category, brand name, information about the commercial execution itself, and so on. The recall method was for that reason adopted here.

Attitudes and Conation

Attitude toward the ad and brand are the most common measures of people's attitudes that develop at least partially in response to viewing ads. Although there may be a number of dimensions of liking for ads, we were here most interested in a global response of liking or not liking rather than to the intricacies of dimensions of liking (Olney, Holbrook, & Batra, 1991) or aspects of the antecedents to the liking. The same rather global conceptualization of attitude toward the brand was also preferred here.

Conation is another concept with a number of reasonable possible definitions. Conation can be the actual selection or purchase activity. More often, however, in studies that attempt to tie conation to specific ads, self-reported intention to purchase is used as the critical measure of behavior toward the brand. That definition is used here.

A Methodological Caveat

To test the accuracy and generalizability of the two alternative models, and to compare their applicability to emotional and nonemotional commercials, one would need to sample extensively from emotional and nonemotional commercials. Given this is so, how many ads compose a large sample, and how does one know when the sample is representative? Without a taxonomy of all possible ads, these are difficult questions. Thus it was necessary to limit the scope of the study reported here. In the study, a sample of on-air ads was collected from prime time programming in 1989. These ads were then tested for emotional impact on viewers. Six commercials producing high positive emotional impact on viewers and six commercials producing little or no positive impact were chosen for the present study.

Analytic Approach

The basic idea of flow through successive stages of the hierarchy model and the alternative model is tested by the procedure suggested by Holbrook and Batra (1987) and Olney, Holbrook, and Batra (1991, p. 441). This procedure:

"tests for mediating effects via the rule that Y mediates the effect of X on Z if and only if (1) X is related to Z, (2) Y is related to Z, and (3) X is related to Y, and (4) when Z is regressed on X and Y is controlled for, the significance of X in explaining Z decreases (partial mediation) or disappears entirely (complete mediation)."

METHOD

Stimulus materials

Twelve commercials were selected from a large pool of those sampled from prime time programming. Extensive pretesting of the commercials in original pool had shown that some ads generated relatively high positive emotional responses, while others showed very little or no emotional response at all. Three seven-point scales were used to index the emotional-neutral dimension. The items included:

TABLE 1
Ad Characteristics
Measured as Subjects' Responses to Ads
(Principle Component Analysis with Varimax Rotation)

	Stimulation	Credibility	Liking*	Personal Relevance	Familiarity
lively	.82	believable .91	phony .85	confusing .74	well-known .81
fast-moving	.81	clear .84	slow .84	important for me .66	familiar .78
exciting	.79	convincing .83	sluggish .84	meaningful	
imaginative	.74	realistic .81	silly .83	for me .63	
playful	.74	genuine .76	stupid .80	in poor taste .62	
clever	.73	dependable .73	worn out .79	unclear .61	
dreamy	.72	agreeable .70	dull .76		
vigorous	.71	frank .67	old .64		
creative	.69	natural .65	repetitious .63		
amusing	.68	informative .62	flat .61		
attractive	.67	helpful .59	novel .53		
merry	.67	worth			
unique	.66	remembering .58			
wise	.63	tender .52			
a good world	.59				
sensitive	.57				
new	.53				
warm	.51				
Eigen value:	22.79	7.51	2.87	2.13	1.58
% of variance:	46.5%	15.3%	5.9%	4.3%	3.2%

*: Factor loadings are reversed in subsequent analyses. The label "liking" reflects the reversal.
 N=59

warm feeling-neutral feeling; emotional-not emotional, and pleasant-unpleasant. The mean emotion rating for the six emotional commercials was 5.8 and for the six neutral commercials, 2.0. The difference between the two groups was significant ($F(1,60) = 14.8, p < .01$). Three random orders of the twelve commercials were dubbed onto 3/4 inch videotape.

Subjects

Fifty-nine students in an elementary marketing course in a large midwestern university were tested in the study. Subjects were given credits toward a classroom exam as the reward for participating in the study.

Dependent Measures

Commercial attributes were measured using the 52 items developed by Leavitt (1970). These items are shown in Table 1.

Attention to each ad was measured with three seven-point items describing "how closely did you attend to this commercial:" no concentration-full concentration, watched intensely-watched vaguely, and paid full attention-paid no attention.

Attitude toward the commercials (Aad) was measured with three seven-point items: good-bad,

unpleasant-pleasant, and like very much-dislike very much. Attitude toward the brand advertised (Abr) was measured with the same three items.

Purchase Intent served as the index of conation, and was measured with three seven-point items: likely to-unlikely to, plan to-don't plan to, and intend to-don't intend to.

Memory for the commercials was measured at the end of the viewing period with an open-ended questionnaire that asked subjects to "list the brand and/or the basic idea of each commercial you remember seeing."

Procedure and viewing conditions

Subjects were tested in a quiet classroom where they could comfortably view a 19-inch television. The students were randomly assigned to one of the three orders of the 12 stimulus ads. After the interviewer indicated interest in people's responses to commercials and consent forms had been signed, subjects viewed each ad once, then responded to the 52-item adjective checklist, then responded to the attention and attitudinal items. After all 12 of the commercials were completed, a five-minute delay task was introduced. Then subjects were asked to free recall any of the 12 commercials they had seen. After the recall procedure, subjects were thanked and excused.

TABLE 2
Correlations between Ad Characteristics and Some External Variables

External Variables	Ad Characteristics Factors				
	Stimulation	Credibility	Personal Liking	Relevance	Familiarity
Attention	-.08	.00	.01	.34	.31
Memory	-.07	.05	.20	-.17	-.03
Attitude toward ad	.24	.54	.34	-.08	.25
Attitude toward brand	.07	.32	.44	.04	.49
Purchase Intention	.16	.41	.34	.41	.15

N=59

RESULTS

Ad Characteristics. A factor analysis was conducted on the 52 items used to measure attributes of the commercials. Items loading greater than .5 on each factor were used to form five factors. (See Table 1). The five factors accounted for 75.2% of the total variance. Four of the factors, Stimulation, Liking, Personal Relevance and Familiarity were virtually identical to the four factors reported by Leavitt (1970). The five factors were used as the ad message variables.

Discriminant Validity. To assure that the resulting factors capture different dimensions of ad characteristics, the validity of the measures was assessed by examining the correlations between the factors and dependent measures. The criterion against which discriminant validity is determined is that the factors should relate differentially to at least some of the dependent measures (Carmines & Zeller, 1979).

The correlations are displayed in Table 2. Among the five factors, only personal relevance is related to attention ($r = .34$). Liking and personal relevance are related to memory but in differing directions (.20 vs -.17). Personal relevance is the only variable not related to any of the attitude variables. The relations of the other four variables to attitudes differ in strength. Although Stimulation is correlated with attitude toward the ad, it is not related to brand attitude. Finally, all factors are related to purchase intention. The relations differ in strength. This pattern of correlations supports the position that the adjective measures are valid in representing different dimensions of ad characteristics.

Reliabilities of Attention, Aad, Abr, and Purchase Intention. The three attention items were combined to measure the intensity with which subjects attended to the commercial. Reliability assessments were performed for each of the twelve test commercials across subjects. Alpha coefficients ranged from .74 to .96, with an overall reliability of .93.

For attitude toward the ad, the three items regarding subjects' evaluation of the ad were combined. Alpha coefficients for the Aad indices ranged from .88 to .95. The overall scale reliability was .93. Similarly, the Abr index measure was constructed by combining three attitudinal items

toward the advertised brand. The reliability coefficients ranged from .89 to .90, with overall scale reliability of .95. The purchase intention indices showed relatively high reliability across all twelve commercials, from .94 to .99. The overall scale reliability was .99.

Recall. Memory was indexed by the free recall test. Subjects who could correctly recall any information from a test commercial received a score "1" for that commercial. Failure to recall and incorrect recall was scored "0". Although free recall can capture whether subjects remember anything from the commercial, the dichotomous measure reduces memory variation between subjects. This limitation should be kept in mind when evaluating the results reported below. Descriptive statistics for each of the dependent variables are available from the authors.

Tests of the Research Questions

The purpose of the study was to test two competing hierarchic models, the classic hierarchic (one-way flow) model and the two-route hierarchic model (Figure 1). Hence, the analyses involved the following decisions: (1) first, to determine the relation between ad characteristics and purchase intention; (2) second, to find the appropriate model explained by the present data; and (3) to test the mediating effects of the proposed variables on the relationship between ad characteristics and purchase intention.

Several hierarchical regression analyses were performed in the effort to reach the decisions discussed above. Tables 3-6 display the beta coefficients and R^2 s that were produced when various mediation steps in the hierarchy were considered.

Predictive Impact of the Ad Characteristics. In Table 3, the key regression results for purchase intention as the dependent variable and the various independent variables are presented. Column 1 in the table shows that when ad characteristics alone were entered in the regression equation, they accounted for significant variance in purchase intention ($R^2=49.7\%$, $F=8.55$, $p < .01$). Among them, Credibility, Liking, and Personal Relevance had significant positive influences on purchase intention.

TABLE 3
Hierarchical Regression Analysis of Contributions to Purchase Intention

	Purchase Intention									
	1	2	3	4	5	6	7	8	9	10
Independent Variables										
Ad Characteristics										
Stimulation	.16						.20	.14	.08	.08
Credibility	.40 ^c						.46 ^c	.41 ^c	.28 ^b	.27 ^b
Liking	.34 ^c						.34 ^c	.37 ^c	.29 ^b	.24 ^b
Personal relevance	.41 ^c						.40 ^c	.42 ^c	.46 ^c	.45 ^c
Familiarity	.15						.15	.18	.13	.07
Attention		.06					-.02	-.16	-.11	-.17
Memory			-.17				-.16		-.17	-.12
Aad				.48 ^c			.26			.25
Abr					.51 ^c	.32 ^c				.16
R ² (%)	49.7 ^c	0.3	3.0	22.8 ^c	26.0 ^c	31.3 ^c	51.6 ^c	54.03 ^c	56.7 ^c	57.5 ^c
Hierarchical F tests^a:										
Ad Characteristics	8.55 ^c						8.55 ^c	8.55 ^c	8.55 ^c	8.55 ^c
Attention		.18				.18	2.04	2.04	2.04	2.04
Memory			1.77			1.99		2.64	2.64	2.64
Aad				16.87 ^c		16.94 ^c			3.06	3.06
Abr					20.03 ^c	3.89 ^b				0.82

a= Test statistics of the incremental R² that results from adding the designated set of variables to the equation.
b= p < .05
c= p < .01

Once the relationship between ad characteristics and purchase intention is established, the next task is to test the two models proposed here. First, we examine the classic hierarchy model.

Mediation as Predicted by the Classic Hierarchy Model The classic hierarchic model showed in Figure 1a presents a one-way flow of advertising effectiveness from ad characteristics to purchase intention with various interventions of attention, memory, attitude toward ad, and attitude toward brand. Because the mediation involves four intervening variables, several hierarchical regression equations were built to test each intervening variable step by step. The regression results are, then, subject to meeting the required conditions for mediating effects discussed above.

Columns 1 and 7-10 in Table 3 show that some links are missing from the successive stages of the classic hierarchic model. The missing links may occur in attention and memory. When attention and memory were added to the regression equations (Column 7 and 8), the total variance was not improved to a significant level (R²=51.6% to 54.03%, hierarchical F tests= 2.04, 2.06, p > .05). In addition, the two variables did not perform well as predictors of purchase intention (Columns 2 and 3). Thus, the

results do not meet the condition of mediating effects in that attention and memory should be related to purchase intention. The beta coefficients of the ad characteristics did not decrease or disappear when attention and memory were controlled for. Credibility, Liking and Personal Relevance still affected purchase intention strongly and positively.

However, Columns 1, 6, and 10 reveal that the mediation between ad characteristics and purchase intention exists. When all the mediators were controlled for, the effects of ad characteristics decreased substantially but were still significant, with the exception of Personal Relevance. The source of mediation may come from attitude toward ad and/or attitude toward brand (Aad, Abr). When Aad and Abr were entered, respectively, in the regressions, the effects of Credibility and Liking dropped (Columns 9, 10). Aad and Abr by themselves are also strong predictors of purchase intention (Columns 4, 5).

In conclusion, the classic hierarchic model is not supported by the present data. Ad characteristics affect purchase intention significantly. The effects are both direct and partially mediated. However, the mediation does not flow through attention, memory, to attitudinal responses, and finally to conative responses. Rather, the effects of some ad

characteristics, Credibility and Liking, operate via Aad and Abr on purchase intention. Personal relevance, however, has a strong direct effect on purchase intention, which overwhelms the mediation of Aad and Abr.

Mediation as Predicted by the Two-Route Hierarchic Model. Figure 1b presents the two-route hierarchic model of advertising effectiveness. The model proposes a distinction between learning from ads and evaluative responses to ads. Basically, it suggests that the evaluative route of responses to ads is not affected directly by learning. Here, we first examine the distinction by looking at the relationship between memory and Aad, which separates comprehension/learning from evaluation of ads. Equations 5-6 in Table 4 provide the first evidence to support the hypothetical distinction. Attention and memory do not affect Aad ($\beta = .18, .03, p > .05$).

We now first examine the evaluative route, which leads successive responses to purchase intention in reaction to an ad. Given the evidence that attention affects neither purchase intention nor Aad, the hypothesis that the evaluative route to conative responses is driven by attention is not supported. Thus, further tests of the evaluative route will exclude attention from the regression analyses. Moreover, to test the causal order of mediations in the evaluative route, (1) the links between ad characteristics, Aad, and Abr were tested, then (2) the links between ad characteristics, Aad, Abr, and Purchase Intention were tested.

Results from Equations 7-10 in Table 4 show support for the first link, that is, that Aad mediates the effects of ad characteristics. Aad and Abr were highly correlated. This means that in further analyses, the two variables may suppress each other's effects and thus interpretive caution should be kept in mind. Nonetheless, when Aad was controlled for, the effects of ad characteristics on Abr decrease and even disappear for Credibility ($\beta = .32$ to $.01$). For Credibility, Aad manifests complete mediation. In contrast, for Liking and Familiarity, Aad only partially mediates the effects on Abr. Moreover, Equations 11-13 support the second causal link. After both Aad and Abr are controlled for, the effects of Credibility on Purchase Intention decrease from $.40$ and $.29$ to $.28$. The effects of Liking show the same descending pattern. Similarly, Personal Relevance has a strong direct influence on purchase intention, and it is not mediated by attitude toward the ad.

Equations 1-4 in Table 4 provide slight support for the comprehension/learning route. Both Personal Relevance and Familiarity have strong direct effects on attention. However, ad characteristics and attention do not show direct influence on memory. Yet, the effect of attention is improved and approached significance level when ad characteristics were controlled for ($\beta = .27, p = .07$). The possible explanation for this nonsignificant effect is the memory measurement used in the study. Memory was measured by *whether or not* subjects recalled the ad in the study but not *how much* they could remember about the ad. Again, then, the problem with the

dichotomous nature of the memory measure must be kept in mind.

In conclusion, the two-route hierarchic model is supported but with some qualifications. First, the model proposes that the comprehension/learning route and the evaluative route are both driven by attention. However, the results obtained suggest that attention only influence the comprehension/learning route but without having impact on attitude toward ad. Thus, the effects of ad characteristics on purchase intention are operated via attitude toward ad and attitude toward brand without the intervention of attention. Second, the relationship between attention and memory is hypothesized with a caution over the methodological concern. The resultant model is displayed in Figure 1c.

Mediation as Predicted for Effects of Emotional Commercials. Table 5 displays the key regression results for testing the hierarchic model of advertising effectiveness for emotional commercials. Equations 7-15 provide support for the evaluative route to the final conative responses to ads. With Aad controlled for, the effect of Credibility on Aad disappears. The effects of Liking and Familiarity decrease substantially. Aad shows a complete mediation for credibility and partial mediation for liking and familiarity. The effect of Liking on purchase intention is completely mediated via Aad and Abr, but the effect of Credibility is partially mediated. Personal Relevance turns out to have overwhelming direct effect on purchase intention.

Tests of the comprehension/learning route reveal more interesting applications to the two-route hierarchic model. First, the link between ad characteristics and attention disappear for emotional commercials. Equations 1 and 2 show no significant effects of ad characteristics on attention and memory ($R^2 = 10.7\%, 9.7\%$; $F = 1.03, .93, p > .05$). However, influence of learning on the evaluative process of advertising is still found. Results from Equations 4-6 indicate that both attention and memory have direct effects on Aad. Moreover, the effect of attention is partially mediated by memory. The advertising effectiveness model for emotional commercials is illustrated in Figure 2a. One implication from this model is that for emotional commercials the learning route and the evaluative route converge to influence attitude toward brand and purchase intention.

Mediation as Predicted for Effects of Non-emotional Commercials. Similar tests were performed for non-emotional commercials. The results are shown in Table 6. The empirical findings, again, validate the evaluative route of responses to ads (see Equations 6-14). Credibility and liking have effects on attitude toward ad. The effects of Liking and Familiarity on attitude toward the brand are mediated through attitude toward the ad. Credibility and Liking influence purchase intention via attitude toward ad and attitude toward brand. Personal relevance has a strong direct effect on purchase intention without intervention.

The comprehension/learning process of advertising is partially supported in that a direct effect is found between ad characteristics and attention.

TABLE 4
Joint Hierarchical Regressions of Mediating Responses on Criterion Variables

Criterion Variables:	Abr	Ad	Memory	Attention	Ad Characteristics						R ² (%)	E
					Stimulation	Credibility	Liking	Personal Relevance	Familiarity			
Attention					-.08	-.00	.01	.34 ^b	.30 ^a	22.5 ^b	1	
Memory					-.07	.05	.20	-.17	-.03	8.1	2	
Memory				.16						2.5	3	
Memory				.27	-.05	.05	.19	-.26	-.12	13.8	4	
Ad				.18						3.1	5	
Ad			.03							0.0	6	
Ad					.24 ^a	.54 ^b	.34 ^b	.08	.25 ^a	53.3 ^b	7	
Abr					.07	.32 ^a	.44 ^b	.04	.49 ^b	55.4 ^b	8	
Abr			.71 ^b							51.1 ^b	9	
Abr			.55 ^b		-.06	.01	.25 ^b	.08	.35 ^b	69.9 ^b	10	
PI					.16	.40 ^b	.34 ^b	.41 ^b	.15	49.7 ^b	11	
PI			.22		.11	.29 ^a	.27 ^a	.43 ^b	.09	51.8 ^b	12	
PI	.24	.08			.12	.28 ^a	.21	.41 ^b	.01	53.6 ^b	13	

PI=Purchase Intention

E=Equation

a=p<.05

b=p<.01

TABLE 5
Joint Hierarchical Regressions of Mediating Responses on Criterion Variables for Emotional Commercials

Criterion Variables:	Ad Characteristics										R ² (%)	E
	Abt	Aad	Memory	Attention	Stimulation	Credibility	Liking	Personal Relevance	Familiarity			
Attention					.06	.03	.04	.19	.20	10.7	1	
Memory					.01	.19	.06	-.16	.03	9.7	2	
Memory			.28 ^a							8.0 ^a	3	
Aad				.30 ^b						8.9 ^a	4	
Aad			.28 ^a							7.8 ^a	5	
Aad			.21	.24						13.0 ^a	6	
Aad				.27 ^b	.59 ^b	.17	-.17	.17		53.9 ^b	7	
Abt				.18	.41 ^b	.32 ^b	.05	.37 ^b		51.2 ^b	8	
Abt			.64 ^b							41.4 ^b	9	
Abt			.43 ^b		.06	.15	.25 ^b	.12	.30 ^b	59.8 ^b	10	
PI			.41 ^b							17.1 ^b	11	
PI			.59 ^b							34.9 ^b	12	
PI					.19	.45 ^b	.27 ^b	.36 ^b	.13	48.3 ^b	13	
PI			.13		.15	.37 ^b	.24 ^a	.38 ^b	.10		14	
PI			.38 ^a	-.03	.13	.31 ^a	.15	.33 ^b	-.01	54.8 ^b	15	

PI=Purchase Intention

E=Equation

a=p<.05

b=p<.01

TABLE 6
Joint Hierarchical Regressions of Mediating Responses on Criterion Variables for Nonemotional Commercials

	Ad Characteristics							R ² (%)	E	
	Abr	Ad	Memory	Attention	Stimulation	Credibility	Liking			Personal Relevance
Criterion Variables:										
Attention										
Memory										
Memory										
Ad										
Ad										
Ad										
Ad										
Abr										
Abr										
Abr										
PI										
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PI=Purchase Intention E=Equation a=p<.05 b=p<.01

However, both ad characteristics and attention indicate a weak connection with memory (Equations 2 and 3). It seems that both personal relevance and familiarity have a positive impact in drawing attention. Nonetheless, the attention paid to the ad does not necessarily produce better memory for it.

DISCUSSION

Given that the present study involved forced viewing of commercials in a lab setting, the consistency of its results with studies using a variety of other methodologies is striking. First, in the overall sample of commercials, the classic hierarchy of effects is not supported. There is a memory branch and an attitudinal/conative branch and the two do not correlate with each other. This is consistent with the large number of studies that have argued that across the great unwashed world of commercials, recall is not a good index of persuasion. Also of considerable interest is the fact that in the two-branched hierarchy, attention influences processing in the memory branch, but not in the attitudinal branch. This is the same result as found by Thorson, Zhao, & Friestad (1988), even though their study was carried out with non-forced viewing, and with the commercials embedded in ordinary TV programming environment. These results provide strong evidence that watching a commercial makes viewers remember it. But once watching has occurred, it has no intrinsic influence on whether viewers like the ad or brand. That impact is presumably carried by the quality and persuasiveness of the commercial itself.

A third, and perhaps most interesting way in which the present results are consistent with previous findings, is that when commercials are subdivided into those that create emotion in viewers and those that do not, the emotional commercials generate a clear linkage between memory and attitudes. Like in Stewart's large scale study of commercials, those ads that are remembered well and have special impact (in his case, successfully differentiated the brand) are also more likely to show high persuasion scores. Again, it is notable that the present results coincide with Stewart's findings when his study involved so many more commercials and when the persuasion score was significantly different from the one used here. Stewart used the ARS measure of brand change to index persuasion, while here the measure was simply of liking the ad and brand and intention to purchase.

Somewhat puzzling was the result that for emotional commercials, ad characteristics did not predict attention. An obvious explanation was that the emotional ads were all watched with high intensity and the resultant lack of variance in attention scores prevented their prediction by the ad characteristics. Unfortunately the mean attention scores for the emotional commercials simply were not high enough or even consistent enough to provide much support for this explanation. In the overall sample, Personal Relevance and Familiarity predicted attention. Another explanation for the lack of relationship between ad characteristics and attention may have been that the impact of Relevance and Familiarity were

eliminated by the impact of the emotional response to the ads. This idea seems plausible when we also consider that Personal Relevance and Familiarity had a very high impact on processing the nonemotional commercials. When emotion is not around to carry the day for a commercial, then it makes sense that how relevant people think the commercial is and how well they already know the brand would affect how closely they watch.

It is also interesting to consider that even when the attention to memory to attitude to conation link is quite strong, as it is for the emotional commercials, the ad characteristics that predict each step by itself differ. None of the five ad characteristics drive attention or memory, Stimulation and Credibility drive Aad, Credibility, Liking, and Familiarity drive Abr, and Credibility and Personal Relevance drive Purchase Intention. This finding helps to elucidate how McGuire's matrix of persuasion model may operate. Ad characteristics do indeed influence different stages of the hierarchy of responses, just as McGuire posited. However, the stages themselves also influence each other. For example, for the emotional commercials, strong recall is associated with more positive Aad, more positive Aad with more positive Abr, and a greater intention to purchase.

Finally, it is interesting to note that the five dimensions of ad characteristics probably reflect the differences in emotional and nonemotional commercials, but the impact of emotional commercials is not captured by these dimensions. That this is so is confirmed by the finding that the structure of the hierarchical flow of effects is itself changed by emotional impact in commercials. This finding is again consistent with a frequent finding in advertising research. Edell & Burke (1987), Stayman & Aaker (1988), and others have found that even when other antecedents of attitude are taken into account, the impact of individual emotional responses to ads often have independent direct effects on attitude.

Limitations

The consistency of the present study with others using different commercials, different viewing conditions, different dependent measures, and different subjects argues for its generalizability. But as with all studies, the extent to which its conclusions apply must come under close scrutiny and some skepticism. The use of Leavitt's scale of ad attributes rather than one of the many other copytesting systems available may have influenced the pattern of the linkage between stimulus characteristics and flow of processing. The self-reported measure of intensity of attention paid may have significantly changed the pattern of influence flow from ad structure to the other stages of the hierarchy. A different and larger sample of commercials and the method of categorization into emotional and nonemotional might also be expected to change the observed pattern of the processing. Measuring memory with a dichotomous free recall index may have reduced the variation in memory sufficiently to lessen the opportunity to observe its true relations with the other stages of the hierarchy.

Testing of adults or the elderly or any other population group might yield different results from those observed in college students. And certainly intention to purchase is a different measure from actual purchase behavior. As always, the narrower-than-desirable scope of this study motivates a call for further research on the question.

Subject to these limitations, however, the results reported here are encouraging. In spite of those who have long decried the value of looking at memory for commercials, there are under certain conditions, clear relationships between memory, attitudes, and conation. In spite of the age of the hierarchy model and the many attacks on its validity (e.g., Preston & Thorson, 1983), with some modifications, the model remains strongly predictive of viewer behavior. And finally, the study suggests that there is a role for both memory and attention to play. In an advertising literature dominated by attitude theory and measurement, these other two processes are often given short shrift. But in a media world burdened with high levels of clutter, attending and remembering some ads rather than others may soon come to be seen as critically important.

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Nostalgia: An Exploratory Study of Themes and Emotions in the Nostalgic Experience

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ABSTRACT

A set of 164 experience descriptions provided by 62 individuals is used as the basis for an examination of common themes and subjects for nostalgic reflection. Family and home serve as potent stimuli for nostalgia, but a wide variety of other persons, objects, and events were also mentioned by the respondents. Objects and events (such as birthdays, holidays, and reunions) tend to evoke strong memories of the people associated with them. As has been suggested in previous studies, childhood and adolescence appear to be particularly fertile periods for nostalgic meditation. Memories of sights, smells, and tastes are recalled in the descriptions. Both personal and historical nostalgia were elicited and a range of emotional responses are evident in the descriptions.

Nostalgia—"a painful yearning to return home"—has recently attracted the attention of marketers and consumer researchers. Despite this popularity, relatively little work has been published in the consumer literature on the character of nostalgia and the emotional reactions typical of such experiences. Although attempts have been made to identify nostalgia-proneness (Holbrook 1991) and the use of nostalgia in marketing (Havlena and Holak 1991a), our understanding of nostalgia in a consumer behavior context remains limited. This paper presents some preliminary findings from a study designed to explore recurring themes and emotions in nostalgic experiences.

THE NOSTALGIC CONDITION

The word "nostalgia" is derived from two Greek roots: "nostos" meaning to "return to one's native land" and "algos" referring to "pain, suffering, or grief" (Hofer 1688; Daniels 1985). Beginning with the writings of Johannes Hofer (1688), nostalgia has been associated with a myriad of physiological and psychological symptoms. Nostalgia as an emotion contains both pleasant and unpleasant components. This "bittersweet" quality of the emotion is a distinguishing characteristic of the nostalgic condition. In terms of time, it refers back to an earlier period in an individual's life, possibly ranging from ten to seventy years, and draws on biased or selective recall of past experiences. Nostalgia may evoke memories of peaceful, pleasant times or of times of tension and turmoil. Until recently, most of the findings on nostalgia were based on anecdotal evidence or individual case histories rather than on larger-scale empirical studies. As Nawas and Platt (1965, p. 51) observe, "It is rather curious that a phenomenon as pressing, as ubiquitous, and as little understood as nostalgia has received only passing attention from psychologists; in the last quarter century no more than six empirical studies have

appeared on the subject." Havlena and Holak (1991a) present a brief review of some of the pertinent psychological and medical literature related to nostalgia.

NOSTALGIA AND BEHAVIOR

Most recent discussions of nostalgic emotion no longer limit the concept to simple homesickness. Given the increased mobility of individuals in today's society, they may be less likely to suffer the same feeling of displacement as in the past, when leaving a country, town, or particular house was a less common occurrence. Recent sociological writings on nostalgia focus on the adaptive and societal aspects of nostalgia rather than on its original medical basis. Davis (1979) presents a view of nostalgia as a mechanism that permits people to maintain their identity in the face of major transitions that serve as discontinuities in the life cycle (e.g., the identity change from childhood to pubescence, from adolescence to adulthood, from single to married life, from spouse to parent, etc.). Thus, the tendency to engage in nostalgic feelings varies over the course of the individual's lifetime. "Nostalgia-proneness" has been hypothesized to peak as individuals move into middle age and during the "retirement" years. In addition, some past experiences and eras are more likely than others to evoke nostalgic feelings, with nostalgia being stronger for adolescence and early adulthood than for any other period. According to Davis (1979), nostalgic reflections must draw from one's own personal history rather than from external sources such as books, stories, or other publications. A narrow definition of nostalgia suggests that an individual cannot experience true nostalgia for a period or event through which he or she has not lived. This idea of the relevant past is a controversial one, as some researchers have argued in favor of relaxing the personal experience condition in their definition of nostalgia (Havlena and Holak 1991a; Holbrook 1990). Certainly, in terms of the use of nostalgia-evoking stimuli, advertising and product management professionals take a broad perspective with respect to the time dimension of such stimuli. Empirical studies have only recently begun to address the types of past events or experiences most likely to evoke a nostalgic condition in the present. One purpose of this study is to investigate the themes and subjects associated with nostalgia.

Davis (1979) distinguishes among three orders or levels of nostalgic experience. *First order* or *simple nostalgia* is associated with the simple, unquestioning belief that "things were better in the past." *Second order* or *reflexive nostalgia* involves a critical analysis of the past rather than sentimentalization of it. Finally, in *third order* or *interpreted nostalgia*, the individual analyzes the nostalgic experience itself.

Research in the consumer literature focusing directly on nostalgia has only recently begun to appear. Havlena and Holak (1991a) present a review of some of the pertinent literature and samples of nostalgic appeals and products in the marketplace. Holbrook (1990) describes a Nostalgia Index designed to measure nostalgia-proneness and predict affective reactions to nostalgic stimuli at the individual consumer level. This instrument was tested in the context of a broad range of consumer product categories. Acceptable levels of reliability and predictive validity were achieved. Holbrook and Schindler (1991) describe another application of the Nostalgia Index to predict affective reactions to actors and actresses. In a paper based on a subset of the same experience descriptions used in this paper, Havlena and Holak (1991b) analyze nostalgia-evoking events using a time structure and allocation perspective (Feldman and Hornik 1981). They found that activities in the past that serve as subjects for nostalgic emotions at some later point in time are most often leisure activities, both those that are inherently satisfying and those that are satisfying due to an individual's association with other people while pursuing the activity. The current study represents an attempt to examine the nostalgic experience directly and to develop an understanding of the components of the experience.

METHOD

The data used for this study consist of a set of 164 descriptions of nostalgic experiences collected from a sample of 62 individuals. Data collection was accomplished using a written questionnaire format. After being presented with a brief definition of nostalgia as defined in the *American Heritage Dictionary*, the individuals were asked to provide written descriptions of three different experiences, related to objects, events, and people. Respondents were requested to describe these experiences in as much detail as possible, writing about both (1) their feelings and (2) the object(s), person(s), or event(s) that stirs up these feelings. This method is similar to that used by Havlena and Holbrook (1986) to examine the emotional content of consumption experiences.

Additional parts of the data collection instrument followed the varied ordering of the nostalgia experiences. They included: (1) 18 emotion scales describing how subjects rate their feelings, in general, (2) a twenty-item nostalgia index scale (Holbrook 1991), and eight classification questions dealing with year of birth, year of graduation from high school, year of graduation from college, sex, country of origin, marital status, ethnic background, and religious affiliation.

A snowball convenience sample of respondents was used, with a broad distribution of ages being the primary criterion for the selection of the sample. Geographic diversity, student vs. non-student populations, and general interest in the survey were also considered in selecting sample members. One-hundred and eighteen surveys accompanied by self-addressed, postage-paid return envelopes were mailed to geographically dispersed respondents, with an

additional thirty-two surveys distributed to local respondents affiliated with student, church, and civic organizations. The respondents represent a range of age groups (from subjects in their 20s to those in their 70s), educational levels (from non-high school graduates to individuals with graduate degrees), and cultural and religious backgrounds. No compensation was offered for participation. A total of sixty-two (out of 150) questionnaires were returned for a response rate of 41%. An overview of the respondent population appears in Havlena and Holak (1991b).

RESULTS

In the following discussion, recurrent themes are examined in the context of persons, objects, and events. A number of examples from the experience descriptions are used to illustrate the range of topics and themes present in the narratives. Connections between the categories are noted as they apply in this qualitative assessment of the descriptions.

PEOPLE IN NOSTALGIC EXPERIENCES

The Family

As might be expected, family and friends appear as important elements in many of the experiences reported by the subjects. This is true not only for those experiences directly related to people, but also for experiences that were reported as involving objects or events. For example, one male respondent in his sixties experiences and remembers events in terms of his connection to other members of the family:

Events related to Holidays, Birthdays, Weddings, and other similar events tend to remind me of my childhood and the fun I would have at these events.

It is always a pleasant experience for me to experience these events today because I am the patriarch of my family and I attempt to make these events as pleasant as I possibly can for my wife, children, and grandchildren.

I hope that I can leave all my family members with the same pleasant recollections that I have about these events so that they can, in turn, pass these experiences on to their children.

A wide range of *family members* are mentioned as being integral to nostalgic experiences. Certainly, immediate family members (i.e., parents, siblings, and children) appear throughout. Grandparents, particularly grandmothers, are potent subjects for the respondents. Even more distant relatives, such as aunts, uncles, and cousins are focuses for several of the experiences. As one might expect, several respondents have specific recollection of their deceased relatives, often with the "bittersweet" emotion inherent in nostalgia. The accompanying recognition, typical of first-order nostalgic reflection, that "the good old days" are gone forever and can never be recreated is quite clearly recognized. Explicit mention is made of the fact that these subjects are no

longer alive. Expression of sadness for times and experiences which can no longer be shared or missed opportunities to express devotion and/or respect are apparent in the responses. Such sentiments are evident in the following narrative authored by a female in her sixties:

My thoughts of my mother (who has been dead for five years) have left me with more feelings of nostalgia than anyone I have known. There are times when something occurs or when I see something, I think to myself "wait until I tell Mom" and am saddened and have such an empty feeling knowing that I can't share it with her. She loved life and never took any aspect of it for granted and is probably why -- whether it's a wedding, a new baby, the ocean, a flower, a beautiful day -- my thoughts are always with her and how she would have enjoyed them.

Beyond Family

In addition to relatives, a range of personages in the lives of respondents appear repeatedly in nostalgic experiences. *Classmates and friends* from previous educational phases including college, high school, and even elementary school days are mentioned in the narratives. The following narrative authored by a woman in her mid-forties illustrates this theme:

My friend Martha who now lives in Vermont always stirs feelings of warmth & contentment. We were friends from Junior High School on. We don't see each other very often or even write to each other much because of the busyness of our individual lives. However, when we see each other, the years fall away and we feel as young & carefree as when we first became friends. We remember mutual friends and the places we went, our homes and all the joy of school activities. We are not all fortunate enough to have friends that last a lifetime. I feel truly blessed to have such a person in my life.

Individuals of some responsibility and influence during respondents' school years (e.g., teachers and athletic coaches) are indelible in the nostalgic roles they played as illustrated in the recollections of a male approaching thirty:

This past summer a good friend of mine was married. He currently plays for the New York Yankees and was quite a baseball player in high school. I was really looking forward to the wedding because many of my ex-team mates would be in attendance. But it was my American Legion coaches that I was looking forward to seeing the most. Especially Mr. K____. I talked with him for hours and it was strange because I really think about those days a lot and Mr. K____ always seems to be at the beginning of the thought. To this day when I drive by some of the fields I played on when

Mr. K____ was coaching me it instantly brings back fine memories of my childhood and companionship with people that have made me what I am today.

This reflection back to adolescence is quite common. If, as has been suggested, nostalgia often involves transitional periods, it seems reasonable to expect that individuals that have played a major role in one's development, such as the coach referenced above, would serve as subjects for nostalgia.

Friends who have become part of one's life since schooling, co-workers, ex-boyfriends, ex-girlfriends, and ex-spouses, and even former neighbors are named with varying frequency in the responses generated by the respondents. Even more fleeting acquaintances appear to be subjects for nostalgia. The following narrative authored by a man in his mid-thirties illustrates the range of individuals in nostalgic experiences:

I recently had dinner with the people who made up the staff of a business I was employed by some years ago. Since we were all from the same town we all knew each other well, some of the older women had been my baby-sitters when I was an infant. We were so close we all looked out for each other, it was often said that "one of them would lie and the rest would swear to it." We reminisced and laughed for hours, old gripes about work came back as well as funny experiences. Some of us have moved on to other jobs, some retired and some remain in the same job they had years ago, but for a few hours the same "old gang" was back together.

OBJECTS IN NOSTALGIC EXPERIENCES

As we have attempted to demonstrate, key people are consistently the focus of nostalgic experiences -- from immediate and more distant family members, both living and deceased, to classmates and school chums, friends, co-workers, and romantic partners. Often, specific objects or things serve as the stimulus for nostalgic reminiscences of people. Although the author of the following narrative is less attached to objects than most others, the sentiments about objects as a stimulus to nostalgia are expressed very explicitly. It is important to note the analysis beyond first-order nostalgia in this response; the introspection suggests third-order nostalgia.

This one is really taking some pondering . . . objects? objects? Material, replaceable objects? I am really having a tough time with this one because objects come & go, can be replaced, forgotten, even heirloom jewelry or my wonderful cottage by the lake are only possessions for the moment.

I look at photographs of my paintings with a touch of nostalgia, but if my house burnt down and they with it -- so what. The "objects" are not what is important. What is important are people, and memories which is basically what

objects do is evoke thoughts of people and memories. No one object evokes much nostalgia for me. Several times in my life due to self created circumstances, I gave up all my possessions (objects) to start again. Each time I have accumulated many new objects which represent(ed) my life at that moment. All interchangeable, all replaceable, all objects -- no big deal.

Tangible items such as antiques, clothing, jewelry, toys, books, and cars (particularly one's first car) are consistent themes. The following experience authored by a man approaching forty years of age illustrates this connection:

Piano in my father's home has been passed down from my maternal grandmother. As a child roaming in her house, I often hid under the piano . . . I cannot recall the last time the piano was played. Yet, as I recall, in my childhood it was seldom silent. These thoughts typically spark memories of my grandmother (who died when I was 5) and of her household.

Even more intangible stimuli (e.g., music/songs/recordings and movies) trigger nostalgic thoughts. A male respondent in his mid-forties illustrates the impact of a television series on his nostalgic thoughts in the following passage:

While watching the Civil War PBS series, I was reminded of summer vacations with my father touring the battlefields. My father has been deceased for over 10 years and I don't often think of him. Recalling summer vacations reminded me of his child-like curiosity or inquisitiveness.

A very interesting aspect of nostalgia and its "relevant past" is presented in the following narrative authored by a woman in her forties who, while carefully noting objects shown in a movie, experiences nostalgia for a time period in which she, herself, has not lived:

I often like objects of age. Not all old pieces, but many. A delicate cameo brooch, a piece of furniture of a rich dark hue. A few years back I saw a movie "Ragtime." Throughout this movie I experienced feelings of nostalgia. This feeling had nothing to do with the plot of the film but, rather, was caused by artifacts in the film. The rich mahogany of balustrades on curving staircases, fine lace curtains gently billowing on windows, and the rich warmth of brass light fixtures. These and fine crystals on sideboards swept me up in dreams of the quality that average people enjoyed commonly in those days. It is true that the quality and richness of everyday items were enjoyed not only by the elite. But, realistically one knows that even

then there was great poverty -- so not everyone was surrounded by this "quality." It was, however, a more everyday quality than we have today.

Interestingly enough, while this narrative illustrates mostly first-order nostalgia, there is an element of second-order nostalgia reflected in the mention, in passing, of a more realistic assessment of life in the past.

As one might expect, photographs play an important role in initiating nostalgic experiences. This is eloquently illustrated in the following passage, which contains some third-order nostalgic analysis, authored by a woman in her early twenties:

Pictures in general make me nostalgic, even when they are not related to my life. I always enjoy looking at photographs, whether they are mine, my family's or anybody's. I like to imagine the people in the pictures, their environment, their feelings. When I show other people my pictures, I sometimes get a sad feeling that there is little purpose in doing so because they probably cannot relate to them, cannot see the feelings involved at those moments. In other words, photographs represent, to me at least, a variety of feelings. Some may be fun, happy, others may be soothing, sad . . . but they all carry hidden emotions and they all meant something to the person who took them.

The respondent's description indicates the range of emotions that these photographs elicit from her -- happiness, sadness, peacefulness, elation -- due to the memories they trigger. However, she also notes the sadness they may evoke, independent of the subject matter of the photos, as a result of the personal nature of these memories and emotions and the recognition that they can never really be shared, even with close friends.

Usually in response to the elicitation about "objects" which evoke nostalgia, respondents conveyed another major theme in nostalgic experiences -- that of "home." This theme is certainly commensurate with the classic definition of nostalgia -- "a painful yearning to return home." "Home" in this case has broad boundaries; it might literally represent the house in which one grew up, places one has occupied in the past, "the old neighborhood," or even a city in which one has resided. Once again, memories of home are often linked to the people associated with it. This theme is depicted in the following passage authored by a woman in her early sixties:

The event is "returning to the town where I grew up." Whenever I "go home" I drive around town, remembering my wonderful childhood and friends. I have an elderly neighbor who knew me when I was born. She is one of my links to the past.

In keeping with the familiar holiday tune, "grandmother's house" is a potent nostalgic memory. The reader is urged to note the details about furnishings and food, as well as the object (a book) which sparked the recollection in the following passage authored by a man in his early forties:

I was reading from a book that had belonged to my grandmother and slipped into a reverie about her home and the old neighborhood. I was thinking about walking up the block and going to the old bakery. The book reminded me of sitting in my grandparent's parlor reading. The parlor was light and airy, with a couple of very comfortable chairs. Grandfather would be puttering in his workshop and grandmother would be about the house, either in the kitchen or sitting in the front parlor. There would always be napoleon, hot pastries, or black and white cookies. Mom and my sister would be there and dad would come get us after he finished work.

EVENTS IN NOSTALGIC EXPERIENCES

Not only are objects important stimuli for nostalgic experiences involving people, but objects can trigger the recollection of an *event*. People also serve as stimuli for reminiscences about key events as depicted in the first narrative presented in this paper; these events may be personal (e.g., birthdays, graduations, vacations, military service, weddings, reunions, etc.) or they may be more collective in nature with personal and societal elements (e.g., an historical event, major sports event, etc.). A recurrent theme reflected in the experiences concerns holidays as events.

Holidays

Frequently, reminiscences about family or extended family members arise in the context of *holiday celebrations*, a consistent theme in the responses generated. As one might expect, the celebration of Christmas, including specific memories of family gatherings, greeting cards, and even ornaments, triggers nostalgic sentiments for people. The following narrative authored by a man in his mid-forties is a detailed recollection of Christmas including family, friends, music, and even explicit sensations related to the weather:

In high school I took it upon myself to learn the 5-string banjo and formed a folk group which developed a reputation of some note. In addition to sharing musical interests, the other two members of the trio and I were also very close friends. The Christmas of my junior year, after fulfilling family obligations in the morning, the three of us got together and spent the rest of Christmas day travelling around town to carol friends, each other's families and some of the high school faculty (a cappella due to the temperature of the day). I remember this being a particularly happy time being with

close friends and sharing what I guess would be termed a "special time." The crispness of the day -- bright, cold weather -- crunching snow and an occasional cup of beer from some more liberal/indulging parents helped form an incredible memory of "Christmas Past."

What came as somewhat of a surprise was the extent to which Independence Day evokes a nostalgic response in terms of family gatherings and activities. The following narrative by a woman in her mid-forties is indicative of Fourth of July memories:

Fireworks displays and parades, usually on 4th of July always makes me long for the days as I was growing up & all of my brothers & sisters, their spouses & children were all together for family picnics & attended the parades & fireworks displays. We decorated trikes & bikes, waved flags & sang patriotic songs. We were all so proud of our freedom & heritage which my father encouraged in each of us. I felt so privileged to be a member of such a special family. We still all would like to be together, but the distance & our own families including grandchildren keep us from all gathering for those events as we used to do.

Celebrations of Easter, Thanksgiving, and New Year's Eve were mentioned as well. The following experience authored by a woman in her thirties provides explicit detail about the observance of the Paschal holiday, particularly rituals, both religious and habitual (e.g., the annual photograph and primping), special foods, and even aromas:

The celebration of Easter in my father's hometown was quite an event. It always seemed a little larger than life. There was a mystique of the midnight service that only my older cousins were allowed to attend. I remember, every year, having "coffee" (99% milk & 1% coffee) and poppyseed cake for breakfast as everyone took turns waiting for the one bathroom to vacate. There was always a lot of primping -- a new dress, a new purse, gloves and of course a new hat (which was always a source of numerous fights between my mother & me). We would take the annual picture next to the family homestead and my father always carried the Easter basket brimming with meats, cheeses, special bread and beautifully decorated eggs. After church, when the baskets were blessed outside on the sunny hill, it seemed like the entire town had come out for the occasion. New and bigger hats were everywhere -- what a fashion show. To this day, I remember the colors, sounds, and smells of that annual event.

Personal Events

As mentioned previously, in addition to holidays, personal events are a major theme in the experiences gathered from the respondents. A very

explicit birthday recollection, replete with details of family members, activities, and even a reference to food, is found in the following experience written by a man in his mid-sixties:

It was a tradition in our family that on our tenth birthday, my father would take us on a two-day trip to New York City.

For me it was my first visit to the big City. I stayed in a hotel for the first time -- went up into the Statue of Liberty -- rode the ferry, the subway -- visited Newark airport and saw a new plane that had sleeping accommodations for the new cross-country flights -- saw a movie at Radio City -- ate in an Automat -- many treats as a boy from a small town was exposed to the big city. But most of all, I had my Dad all to myself for those two days without the interference of my older brother or younger sister.

In our data, subjects not only discuss birthday celebrations as subjects of nostalgia, but the event of giving birth was also offered as a nostalgic experience, as in the following narrative by a woman in her mid-twenties:

The birth of my son: Nine months seem like an unbelievably long time. But I knew that he'd be born when he was "ready"! I couldn't wait to see him sleep in his crib, or hear the sounds of a baby's cry. Of course, he was two weeks late, and it seemed like agony. He finally arrived on Aug. 28 after 36 hours of labor. But he was well worth it . . . and I wouldn't trade him for the world!

The following description authored by a woman in her sixties depicts an event and nostalgic sentiments for days gone by including close personal relationships:

A few months ago I went to a reception to celebrate the wedding anniversary of a sorority sister. It brought memories of my college days. They were pleasant memories of times spent in the sorority house with friends.

Class reunions, whether high school or college, are, by design, nostalgia-evoking events. The following experience authored by a male approaching forty depicts many of the classic sociological phenomenon associated with nostalgia -- heightened feelings of nostalgia as one approaches the transition to middle-age, reflection back to adolescence as a subject for nostalgia, and the resulting twenty-year interval between the original experience and the nostalgic consideration of it. The experience is replete with references to music, including the school alma mater (a theme which has come up in other descriptions), and photographs. In addition, the author engages in an analysis of his nostalgic feelings and their origins, representative of third-order nostalgia, in this narrative:

20-year high school reunion -- 50 of the 164 classmates attended in June 1990 . . . Event included rendition of alma mater, reproductions of high school photos, period music . . . Plenty of reminiscing, catching up, etc. . . . Last reunion was 10-year event.

Reunion took place off school premises -- in an auditorium I had never before visited and not affiliated with school.

Interestingly, those classmates not there generated more feelings of nostalgia than those who attended (I had close high-school friends in both groups). For example, plenty of wondering who's where and doing what . . .

Much of this not verbalized at event.

Some possible explanations:

1. 20 years seems to be interesting threshold at which some classmates looked as they were remembered and others looked like total strangers . . . Generated questions of what those remembered but not present look like . . .

Mystery. Those present need not be visualized.

2. Several classmates have passed away, leading to the topic of mortality . . . How are those not here -- healthy?

3. Why aren't they here? Issues of self-image and accomplishments? Didn't care? Or, see most everyone at reunion every week anyway. (Many locals were no-shows).

Major historical events may have both *personal* and *collective elements* according to sociologists (Davis 1979). The following description, which includes references to music and a movie and was authored by a woman approaching forty, illustrates both nostalgic elements:

Now here is one that surely you've not read yet (I write tongue in cheek) Woodstock. How predictable for my generation to look at that single event with nostalgia.

Although I never made it to the concerts, the event is still revered in my thoughts. It evokes emotions of a better time, but of a time when I was just old enough to come of age, to rebel, to feel on my own -- with a hefty parental allowance of course. My feelings are not of yearning to return to that time but of sheer joy for having experienced it. The 60's that is. The drugs, the sex, the rock & roll, hitch hiking the Pacific Coast Hwy., etc. Except for the sex & rock & roll, I would not want to duplicate the experience now but feel so happy and thankful that I *had* the experiences. The feelings are all positive for the opportunity to grow in every way during the Woodstock era. When I hear the music or more recently view ads for the new Stone movie "The Doors", I feel a grin cross my face and I thank God that I am not one year younger for I may have missed a most wondrous, exciting time.

Intergenerational nostalgia (Davis 1979) refers to memories of the past created through personal

interactions with others who have lived through earlier periods and events. These memories are a combination of tales of the unexperienced past and the experiences of hearing these reminiscences. With the advent of motion pictures, television, sound recording, and radio, depictions of past events need no longer rely on verbal descriptions and can be much more vivid, imparting a sense of actual participation in an event or era. This phenomenon is clearly illustrated in the following experience authored by a man in his twenties about the same historical event, Woodstock. Again, music is a key theme in the nostalgic experience, as well as the classic filtering (looking at the past through rose-colored glasses) which occurs when one reminisces:

Woodstock makes me nostalgic although I was barely born when it was happening (I was born in 1964). I've seen videos of it, and a lot of it makes me happy. I *wasn't* there since I'm not really into oppressive crowds, being rained on, being stoned/high, etc., and so on. *But*, when I hear the *music* that came from that time period, it makes me nostalgic for an idealized past (that wasn't really ideal). I think of a time period when people stepped out of the tight social structure, broke some (narrowly conceived) rules, and made history. The music of Jim Hendrix, Eric Clapton, Janis Joplin, Stevie Winwood, Country Joe and the Fish, Arlo Guthrie, and so many others, makes me "nostalgic" for a past which, not so much represents a reality I would have liked had I been there, but which I can experience vicariously by taking the best of what happened *then* and incorporating it into my reality now.

DISCUSSION

The findings presented in this paper relate to common themes and emotions in the set of experiences. Subjects such as holidays, religious observances, family, popular music, and school-related experiences tend to occur repeatedly in the set of experience descriptions. Both personal nostalgia, for events or objects from the author's own past, and historical (or intergenerational) nostalgia, for events or objects outside the realm of the respondent's direct experience, are represented in the descriptions. Tangible objects and intangible presentations (in the form of music or film) are depicted as key nostalgia stimuli. Even food and aromas are given considerable attention within the narratives. Although first-order nostalgia occurs most commonly, second and third-order nostalgic sentiments are represented in several experiences.

Greater understanding of nostalgia, the stimuli which evoke it, nostalgia-proneness on the part of individuals, as well as the emotions encompassed in nostalgic experiences would be beneficial to consumer researchers and practitioners. As noted in Havlena and Holak (1991a), there has recently been increased attention to nostalgic themes in advertising strategies and product management. In some sense, nostalgia

connects individuals, objects, and events across time and place. Themes and emotions noted here are relevant to communication providers or facilitators (e.g., telecommunications, greeting cards) which allow individuals to share life experiences at a particular point in time. In addition, the findings discussed here are of particular relevance to products and industries providing time storage or a sharing across time periods (e.g., photographic products, greeting cards, memorabilia, etc.).

As a continuation of this research stream, a project is underway which will shed light on the specific emotions attached to nostalgic experiences using experience descriptions collected from U.S. respondents. Additional research is underway to investigate the universality of nostalgia through cross-cultural data collection. Another fruitful research stream involves the further exploration of the sensory modalities involved in the nostalgic experience (e.g., touching objects, tasting food, smelling aromas, hearing music, seeing visual stimuli).

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Abstract
Nostalgia in Advertising Text: Romancing the Past
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The perennially childlike quality of romance is marked by its extraordinarily persistent nostalgia, its search for some kind of imaginative golden age in time or space (Frye 1973, p. 186).

Nostalgia in advertising has become a focal point of controversy in the past decade. On the one hand, marketing practitioners and advertising creatives hail nostalgic campaigns as a good way to make the most of the "gift" of brand equity possessed by old products, slogans, and packaging (Winters 1990, p. 16). In this view, Barbie Breakfast Cereal, for example, makes effective use of the pleasurable recollections associated with Barbie dolls to appeal to the children of those who first played house with Barbie and Ken. On the other hand, social commentators damn the nostalgia craze as evidence of the collective bad taste of the American public, aided and abetted by advertising. In this view, the Barbie collection now housed in the Smithsonian is "intended presumably to show somebody from the future what disgusting times we lived in" (Gorman 1990, p. 16).

The heat generated by this controversy has precluded close examination of the phenomenon of nostalgia in marketing communications. The purpose of this paper is to address that issue by focusing critical attention on the analysis of nostalgia as an aspect of marketing text. The analytic mission begins by addressing the definitional issue (Havlena and Holak 1991) of what form or forms nostalgia takes in commercial text. The paper uses literary history and theory to analyze nostalgia as a communication *theme*, on the grounds that advertisements borrow both style and substance from literary antecedents. Even though this paper relies on literary criticism, "text" is interpreted broadly to include pictorial (Steiner 1988) and musical elements (Holbrook and Schindler 1989) as well as verbal ones. The reason is that nostalgia themes in advertising are often multimedia, with words, music, and/or pictures interacting. In addition, marketing communications are also interpreted generously to include not only advertisements, but also mail order catalogues, periodicals, and entrepreneurial ventures whose promotion is nostalgia-driven.

This paper follows Blonsky in identifying nostalgia as a theme (or "tape") in promotions (Whalen 1983), and then distinguishes between two separate but related forms: historical and personal. This division is based on advertising's antecedents in literature -- the historical romance and the sentimental novel (Abrams 1988) -- and their differences in both formal elements and intended reader responses. Textual differences center on treatment of time, space, characters, and values, and potential consumer response effects involve empathy with historical romances vis à vis identification with sentimental ones.

The rationale for turning to literary history to explain why both forms of nostalgia are abundant in contemporary advertising rests on the pervasiveness of the *fin de siècle* ("end of century") phenomenon at this time (Showalter 1990). Nostalgia is a popular theme in art produced during the waning years of an epoch, a time when the century is metaphorically dying. The *fin de siècle* syndrome is heightened at present because of an unprecedented temporal coincidence: the century is ending just as the largest group in the population -- the baby boomers -- also must face its own mortality, signalled by reaching the age of fifty. The text of magazines such as *Memories* and catalogues such as *Wireless: A Gift Catalog for Fans and Friends of Public Radio* illustrates nostalgia themes that reflect the "double whammy" of an aging population confronting a century in its final years.

The paper next analyzes the theme of historical nostalgia, in which the past is defined as *a time before the audience was born*. The literary antecedent is the historical romance, often set in far-away space as well as distant time. In addition to exotic settings, the characters are idealized and larger-than-life "others," symbolic rather than individualized heroes who often attain mythic status (Stern 1990). The values are traditional and conservative, as befits the representation of a past era as a golden age. Nearly any era can be haloed in this fashion if the events and characters are sanitized by filtering out situational evils (war, crime, disease) and by enlarging upon universal virtues (goodness, faith, generosity). The effects of historical nostalgia depend on vivification of an audience's imagination in order to stimulate perceivers to empathize with characters personally unknown to them. The J. Peterman Company catalogue -- *Owner's Manual No. 10* -- as well as the magazine *Victoria* exemplify historical nostalgia in marketing communication.

In contrast to historical nostalgia, the personal theme depicts a *time in one's own past*, generally twenty or thirty years before "now" (Davis 1979; Holbrook and Schindler 1989). The literary antecedent is the sentimental novel, and personal nostalgia prettifies the individual's past by screening out all but pleasant details. The time frame is one's own lifetime, for these texts reference events from a personal past, and the spatial setting is "home," the locus of the past self. Thus, familiarity is the rule in treating time and space, as opposed to the exoticism of historical nostalgia. While both forms idealize characters, the idealization here embroiders a "personal best" portrait of the self. The values are traditional, often reflecting nurturance and love associated with maternal tenderness recollected from childhood. The effects of personal nostalgia rely upon triggering the perceiver's memory in order to stimulate identification with cherished reminders of the one's past. Advertisements such as Good 'n Plenty ("Choo Choo Charlie") and Campbell's Soups (The "Campbell Kids") as well as

periodicals such as *Martha Stewart Living* demonstrate the use of personal nostalgia as a marketing communication strategy.

The paper ends with three suggestions for future research. First, content analysis is proposed to determine where and when historical and personal nostalgia themes appear in advertising text. An ancillary suggestion is to investigate the *fin de siècle* phenomenon over two centuries -- the end of the nineteenth and the end of our own -- by examining the nostalgia content of advertising in both epochs. Second, study of nostalgia effects on consumers in the context of potential gender differences is set forth. Given the appeal of literary antecedents -- notably romances -- primarily to women, the issue of differences in nostalgia stimuli appropriate for men versus women requires further study. Last, the under-researched modalities of smell and taste as nostalgic stimuli deserve more attention than they have heretofore received. Proust's tribute to the "vast structure of recollection" summoned by a single crumb in a teacup serves as a call to pay heed to the power of smell and taste in evoking pleasurable recollections (1928, pp. 65-66):

And once I had recognized the taste of the crumb of madeleine soaked in her decoction of lime-flowers which my aunt used to give me...in that moment all the flowers in our garden and in M. Swann's park, and the water-lilies on the Vivonne and the good folk of the village and their little dwellings and the parish church and the whole of Combray and of its surroundings, taking their proper shapes and growing solid, sprang into being, town and gardens alike, from my cup of tea.

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Nostalgia: A Neuropsychiatric Understanding

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Nostalgia, or the bittersweet yearning for the past has been eloquently analyzed in terms of society and consumerism, but what of its neuropsychiatric substrate and its implication? (Havlena, et al). It is these I shall address today.

Within the psychiatric framework, nostalgia may be considered a yearning to return home to the past -- more than this, it is a yearning for an idealized past -- a longing for a sanitized impression of the past, what in psychoanalysis is referred to as a screen memory -- not a true recreation of the past, but rather a combination of many different memories, all integrated together, and in the process all negative emotions filtered out. For a personal example of screen memory think of your first ever vivid memory. Although to you it seems a realistic recall of an early childhood event, it in fact is a compilation of memories all integrated into one. This can be demonstrated in psychoanalysis: during the analysis of the transference neurosis, the patient's earliest memory undergoes changes and divides into multiple components that are separate, definable childhood memories.

If one defines nostalgia as a yearning for an idealized past, the bittersweet nature of it becomes clearer. One can never return to this past, it never truly existed. And the present reality, no matter how good, can never be as good as an ideal -- which nostalgia has created. Thus the saying "you can't go home again."

Nostalgia, unlike screen memory, does not relate to a specific memory, but rather to an emotional state. This idealized emotional state is framed within a past era, and the yearning for the idealized emotional state manifests as an attempt to recreate that past era by reproducing activities performed then and by using symbolic representations of the past.

Idealized past emotions become displaced onto inanimate objects, sounds, smells and tastes that were experienced concurrently with the emotions. This same mechanism of displacement is utilized in medicine for its negative impact in the treatment of alcoholism. Disulfiram (Antabuse) is used as an aversive conditioning agent to inhibit recurrent use of alcohol in addicts. (Kaplan, et al 1988, p. 227).

The nostalgic urge to recreate the past within the present is, in many ways, a driving force for behavior -- how frequently we marry spouses with characteristics reminiscent of those of our parents. As other examples, we may adopt the political affiliations and prejudices of our forebears, become democrats, republicans, or even racists because our parents were.

Similarly, the nostalgic urge to recreate the past explains why so many abused children marry abusive spouses, and children of alcoholics marry alcoholic spouses -- not because their childhood was happy, but rather because they seek to recreate their idealized sanitized memories of their childhood by

identifying with symbolic manifestations of the past which they find in their alcoholic or abusive spouses.

This same paradigm governs the repetition of failures on the part of "neurotics" who behave as if oblivious to logical rationale. This is seen in persons with recurrent failing relationships (those marrying seven or eight times), those with recurrent failures at business, and even those with recurrent experiences of being victimized.

Through daily behavior, the nostalgic urges may also be partially gratified -- food choices for example (hence the passing down from generation to generation of family recipes) -- with an actual primitive incorporation into the self of the nostalgic object.

Observing holidays precipitates nostalgic desires, while it simultaneously recreates past experiences, hence fulfilling the nostalgic yearning. Emotionally-laden rituals discharge nostalgic energies through the physical activity of the ritual, while forging linkages with the past. Religious practices may be viewed as an immersion in institutionalized nostalgia -- unchanged over the millenia, hence gratifying nostalgic wishes. This explains how the intertwining of religion with the major holidays (Christmas, Thanksgiving, Easter) achieves the greatest impact and relief of nostalgic drives.

Thus, nostalgia may be viewed in psychiatric terms as a driving force for actual behavior -- the attempt to recreate an idealized past in the present. By attempting to recreate this idealized past, one discharges psychic energies to fulfill nostalgic yearnings. Some results of these attempts throughout society may be seen in the production of sequels to movies, TV shows, and in the common practice of naming first-born sons after their fathers.

Nostalgia exists in the pathological, as well as the normal, states. Some severely regressed schizophrenics actually live within the delusional system of their idealized memories.(Hill). In pathological bereavement, obsession with loss of the idealized past causes depression.(Kaplan et al, 1988, p. 299). In senile dementia of the Alzheimer's type, or Wernicke-Korsakoff syndrome, where recent memory is markedly hampered, nostalgic memories are still available, hence substituting the past for the present.(Lishman;Hales et al).

On the other hand, in an antithetical state to nostalgia, those suffering from posttraumatic stress disorder do not yearn for the past but rather desire to eliminate memory for the past.(*Diagnostic and Statistical Manual of Mental Disorders*). However, in both nostalgia and in posttraumatic stress disorder immediate stimuli can precipitate emotionally-laden memories. These stimuli are context specific. For instance, many Viet Nam veterans with posttraumatic stress disorder describe odors of seafood or burning diesel fuel as precipitants for the flashback phenomena.(Kline et al). Flashbacks for those who were Korean veterans with posttraumatic stress

disorder describe odors of beaches and wet canvas as precipitants. And Persian Gulf veterans describe gustatory-evoked recall from drinking ionized water.(Coombs).

Homesickness is not true nostalgia, but rather a geographic nostalgia -- a yearning for a different space rather than a different time -- for return to idealized memories of a location and people left behind.

All the senses may be used to precipitate the nostalgic experience -- hearing music (witness the popularity of "classics" of the '60s, '70s, '80s, etc.), seeing pictures (photo albums in fashion with their recurring trends), and possibly the most significant, smelling odors.

Even as early as 1908, Freud recognized a strong link between odors and the emotions.(Freud). Anatomically, the nose directly connects with the olfactory lobe in the limbic system -- that area of the brain considered the seat of the emotions. The olfactory lobe is actually part and parcel of the limbic system.(MacLean). Therefore, the most powerful impact upon the emotions is through the sense of smell. In a universal phenomena called olfactory-evoked recall, an odor can bring back a memory from the past. Often a vivid visual image is evoked along with an associated positive mood state. A classic example was described by Marcel Proust in the first volume of his novel *A La Recherche Du Temps Perdu* (English translation *Remembrance of Things Past*).(Proust). The aroma of madeleine dipped in tea evoked in the author a flood of memories and feelings of nostalgia.

The understanding that odors evoke more powerful reactions than the other senses do is not particularly new. It is well known that the aroma of freshly baked goods conjures up warm childhood memories. When an odor of baked bread was released in a U.S. supermarket, sales in the bakery section increased threefold. Movie theater managers infuse the air in their lobbies with the aroma of popcorn to entice patrons to buy. The smell of chocolate chip cookies released into the air in front of cookie stands induces the people to salivate and buy cookies. The unique, leathery "new car scent" is an exciting enticement to most customers and a positive inducement to make a purchase. Victoria's Secret, a successful women's underclothing chain, uses a special floral potpourri throughout its stores. Many of the customers say that the aroma lifts their spirits.

Some odors, however, can have a negative impact. Among 1002 people queried in a 1989 Gallop poll throughout the United States, the most disliked odor was the odor of fish.(unpublished study, 1989). We might well expect any store located next to a seafood market to have their sales negatively affected by the odor.

An ordinary person can smell 10,000 odors.(Ackerman). But no two people react in exactly the same way.

In general women are more sensitive to odors than are men.(Doty et al). Ethnicity and geographical background strongly affect odor sensitivity. Japanese perfume may not be a popular sales item in North America. Among sample populations taken across the

U.S., Korean-Americans had a keener ability to identify odors than either black or white Americans. Native Japanese were least able to identify the odors used in the study.

As might be expected, our judgement as to the pleasantness or the unpleasantness of various odors depends too upon who we are and where we live. In one study, sample populations from 20 nations were asked to evaluate 22 different fragrances.(Davis et al). The populations with similar odor preferences could be grouped geographically. One group with similar odor preferences included residents of California, Kansas, Japan, West Germany, Taiwan, Canada, Italians in Brazil, Phillipines and Taiwanese in California. A second group with similar preferences included residents of Australia, Sweden, France, Norway, East Germany, Finland, Mexico, Japanese in Brazil and Africans in Brazil. This clustering of odor preferences implies a similar clustering of preferences with regard to foods and perfumes.

Among the 1002 people mentioned previously, the particular area of the United States from which they came had a decisive influence on their responses to odors (Table 1).(unpublished study, 1989). Although in general, baked goods were the most common precipitant of an olfactory-evoked recall, among persons from the east coast, the smell of flowers prompted an olfactory-evoked recall of their childhoods. Among persons from the south, the smell of fresh air prompted a similar recall - among those from the midwest, the smell of farm animals, and among those from the west coast, the smell of meat cooking or barbecuing. Evoked memories of childhood are usually associated with a positive emotional state which may then be transferred to the place where the evoked memories are experienced -- the store and the items for sale. The makers of certain oriental perfumes already take advantage of this effect by adding the smell of baby powder to their formulas, baby powder being associated in most persons' minds with a safe, clean environment.

In order to further investigate olfactory-evoked recall, in September of 1991, 989 English-speaking individuals selected at random in Water Tower Place shopping mall in Chicago consented to be interviewed in person for this Institutional Review Board approved study. Respondents reported basic demographic data including the decade of their birth and their predominant geographic location during childhood. Psychological data revealed the existence of olfactory evoked recall, the particular smells that precipitated childhood memories and the overall level of happiness with the individual's childhood.

Demographic Profile: 478 were male, 511 were female. Decades of birth ranged from the 1900s to the 1970s as follows: 1900s - 3, 1910s - 16, 1920s - 43, 1930s - 70, 1940s - 118, 1950s 204, 1960s - 338, 1970s - 197 (Table 2). In order to achieve statistical significance, data for people born in the 1900s, 1910s and 1920s were combined into a single grouping. While most were reared in Chicago (325) or its suburbs (176), 45 states were represented and 39 countries as well.

TABLE 1
QUESTION:
"What smells or odors remind you of your childhood?"

Childhood Smells and Odors (n = 1,002) (Three Responses)		
Percent of Response	Who Gave Total	Percent of Those Specific Response
Baking bread, cookies, cakes, etc.	18	23%
Fresh air, rain, outdoors	5	7
Baby powder, powder	4	6
Chicken	4	5
Flowers	4	5
Farm smells	4	5
Meat cooking	4	5
Cut grass	3	5
Burning leaves, wood	3	4
Popcorn	2	3
Apples	2	3
Spaghetti	2	3
General food cooking	2	3
Apple pie	2	2
Cleaning products	2	2
Bacon	2	2
Soup	2	2
Fish, seafood	2	2
Other (1% or less)	50	65
Don't know	20	

Statistics were analyzed using Chi-square test on contingency tables or Z-test for the difference between pairs of proportions.

Results: Overall, 85.2% displayed olfactory evoked recall, a generational effect was demonstrated in this regard (Table 3).

Eighty-six and eight tenths percent of those born after 1930 displayed olfactory-evoked recall, whereas only 61.3% of those born before 1930 displayed it. This implies that the marketing of products through nostalgia with odors would be more efficacious in a target consumer group born after 1930. This is not surprising since olfactory ability decreases with age: one-half of those over 65 and three-quarters of those over 80 years of age have a reduced ability to smell.(Doty et al). In addition, memory worsens with age further explaining our findings in the elderly.(Bartus et al).

As mentioned, women have better olfactory ability than do men. Yet in our study at Water Tower, no statistically significant difference was shown

between the genders in their self-reports of odor-evoked nostalgia (Table 4). Hence, regardless of sex, aroma is an important nostalgia inducer. Based on the Z-test for the difference between two proportions, a statistically significant generational difference was found (Table 5). Those born from the 1930s on were more likely to have nostalgia induced by food odors and less likely to have nostalgia induced by nature odors than those born before the 1930s.

Those born before the 1930s cited smells of nature including pine, hay, horses, sea air and meadows, whereas those born in 1930 to 1979 were reminded of their childhood by such smells as plastic, scented markers, airplane fuel, vaporub, sweet tarts, and playdough. This shift away from natural odors and toward artificial ones may portend future problems for society. If we are concerned about ecology partly out of nostalgia for nature odors, then 50 years from now, how will the environmental movement be of much concern to the people who are nostalgic only for manmade chemicals?

TABLE 2

DECADE OF BIRTH (ALL DECADES)	POSITIVE SMELL PERSONS	NO SMELL PERSONS	TOTAL
1970's	171	26	197
1960's	290	48	338
1950's	186	18	204
1940's	98	20	118
1930's	60	10	70
1920's	28	15	43
1910's	8	8	16
1900's	2	1	3
TOTALS	843	146	989

TABLE 3

DECADE OF BIRTH	PERCENT OF PERSONS IN EACH BIRTH DECADE WHO ARE "POSITIVE SMELL."
1970's	85.8% - 171/197
1960's	85.8% - 290/338
1950's	91.2% - 186/204
1940's	83.1% - 98/118
1930's	85.7% - 60/70
1920's	65.1% - 28/43
1910's	50.0% - 8/16
1900's	66.7% - 2/3

TABLE 4

COMBINED
TOTAL
85.2%

MALE
83.7%

FEMALE
86.7%

TABLE 5

	Combined 1930's - 1970's	Combined 1900's - 1920's
Food or Cooking Smells	40.2%	26.3%
Nature-related Smells	30.6%	44.7%

TABLE 6

	<u>UNHAPPY CHILDHOOD</u>	<u>HAPPY CHILDHOOD</u>
Foul Smell- Evoked Nostalgia	19.7%	7.8%

Clearly, in targeting a younger consumer group, food smells would be more efficacious than would nature smells, but the opposite would be true in targeting an older group. Odors were divided into foul and nonfoul smells. Foul smells (i.e. garbage, urine, manure) were defined by a panel of olfactory experts. Eight and eight tenths percent of those who reported olfactory-induced nostalgia said that foul smells were the precipitant. Eight and seven tenths percent (or one person in 12) reported an unhappy childhood. This was independent of birth decade or gender. And whether one had a happy childhood influenced which kind of smell evoked a childhood memory. The one person in 12 who reported having an unhappy childhood, was more than twice as likely to describe such foul odors as mothballs, body odor, dog waste, sewer gas, bus fumes, and mother's menstrual cycle (Table 6). This suggests that psychotherapists might well inquire into what odor induces childhood memories as a further method of gaining insight into personality.

Interestingly, happiness in childhood did not correlate with ability for olfactory evoked recall -- suggesting the universal nature of this phenomenon.

About equal numbers, 91% of men and 92% of women, reported a happy childhood.

Implications of our findings for marketers are: 1) approximately 85% of both men and women report smell-induced nostalgia -- suggesting smell is an important tool in marketing, 2) consumers under 60 years old are better targets for marketing nostalgia than older consumers, 3) while a wide range of smells could be utilized to induce nostalgic recall, food smells are a more effective stimulus for the younger consumer while nature smells are more effective for the older consumer, 4) in attempting to sell a product now, odorize it to maximize nostalgia of present-day consumers, 5) the product now odorized may come to be the focus of nostalgia for future consumers, 6) use of nostalgia through activation of the limbic system through the sense of smell will produce the strongest emotional appeal as a means of product marketing.

Through odors, nostalgia may be induced with greatest ease. One may speculate that nostalgic desires will increase in the coming decade since it seems likely that the more dissatisfied we are with the present, the more we idealize the past (a temporal equivalent of "the grass is greener on the other side" or as Richard Llewellyn wrote, "how green was my valley").(Liwellyn). Therefore, in the hard times ahead, it will be easier to sell nostalgia.

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The Role of Consumption and Disposition During Classic Rites of Passage: The Journey of Birth, Initiation, and Death

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OVERVIEW OF THE SPECIAL SESSION

Our lives are marked by stages through which we pass. From childhood we pass into adulthood. Many of us become wives and husbands, mothers and fathers, and even grandparents. Death punctuates our life and is our final passage. These journeys are important for they announce that we are different; our lives as before no longer exist (Gennep 1960/orig. 1908).

Rites of passage tell us who we are and how we fit into the fabric of society. While consumer behavior has been studied during role transition (McAlexander 1991; Roberts 1991; Schouten 1991a, 1991b; Wright 1991; Young 1991), the role and meaning of consumption and disposition during the classic rites of passage into adulthood, parenthood, and death are unexplored. The objective of this special session was to examine consumer behavior during these critical life events. The proposed session included four presentations of interpretive empirical work from researchers in the fields of consumer behavior and communications. John Schouten was the discussant.

First, Newell Wright and Jon Shapiro examined the transformation of women and men into parents upon the birth of their first child. This study was based on a series of in-depth interviews with mothers and/or parents before the birth of their first child. For those parents who gave birth to their child, the gestational period is a liminal state between being childless and being a parent. While some of the preparatory activities during this period are functional in nature, other pre-birth consumption activities and rituals help prepare the couple for their new role as parents. Consumption activities also help the parents deal with some of the anticipated stresses and anxieties of being a parent.

Second, Julie Ozanne discusses the rite of passage into adulthood. The child's transition into adulthood in our society generally lacks any formal initiation rite (Hiebert 1976; McCracken 1988). In the absence of initiation rites, consumption habits take on a greater role in distinguishing the pre-adult from the adult (Wright 1991). However, when formal initiation rites exist, consumption behaviors may play a less important role. This study examined young men from the Mormon subculture. It has been suggested that the mission experience acts as a public demarcation for the young men between being a pre-adult and an adult. Analysis of daily journals, graffiti, and in-depth interviews with young men before, during, and after their missionary work suggests that being on a mission is a rite of passage. Furthermore, these men enter a sacred state that is nearly devoid of the material concerns that exist in their former profane state.

Third, Ron Hill's in-depth interviews with troubled young men trying to come of age in a harsh

environment offers a stark contrast to coming of age as a Mormon. Whereas the Mormon young men in the Ozanne study are almost exclusively from intact, secure, middle-class families, Ron investigated the rite of passage into adulthood with young men who are institutionalized for criminal behavior and come from broken and economically impoverished homes. While the passage into adulthood is difficult for most people, the transition into adulthood for these young men exacts a price from society. Criminal behavior, namely acquisition of goods through illicit means, plays an important role in their claims to adulthood. Ron explores the implications of such dysfunctional behavior for society.

Finally, Mara Adelman discusses the different rites of passage that people living with AIDs face, first as they move into institutions and then as they come to grips with their imminent death. After over two years of courageous volunteer work at an AID's residential home and interviews with patients and staff, Mara suggests that possessions help individuals during change to reassemble and disassemble the self. For example, institutionalization forces AIDs patients to dispose of possessions as they break with their past lives. They then use the few possessions that they are allowed to bring to reassemble a new life and self. The disposition of possessions prior to death is another opportunity to disassemble the self. The material legacy offers the people left behind an opportunity to reassemble the person through associated experiences and memories.

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MATERIAL CONCERNS WHILE COMING OF AGE IN THE MORMON FAITH: SPIRITUAL WORK IN A SECULAR WORLD

Julie L. Ozanne, Virginia Polytechnic Institute and State University

Initiation rites mark the transition from childhood to adulthood (Gennep 1960/orig. 1908). Generally few formal initiation rites exist in western cultures (Hiebert 1976; McCracken 1988). However, the passage from pre-adult to adult in the Mormon faith occurs for many young men during their missionary work. At this time, young men are separated from their family and friends and almost all aspects of their material world. For two years these men have few possessions and live in a monastic state, forsaking worldly goods and pleasures such as television, newspapers, music, friendships, jobs, school, romantic relationships, and family. Thus, the rite of passage into manhood for the Mormons is defined in part by antimaterialism. It was hoped that greater insight might be gained into materialism by examining individuals who temporarily renounce their possessions.

In-depth interviews were done with six informants at different stages in the mission experience: before, during, and after their missionary work. As well, two daily diaries of missionaries were analyzed over the two year missionary experience. Graffiti found in the Language Training Center (later called the Missionary Training Center) also provided insight into the experience. In the following section on the results, two sets of initial findings from the study are discussed. First, the role of the community in the lives of these men is explored. Second, the missionary experience as a rite of passage is examined.

RESULTS

Community

The informants receive strong support from family and friends. All the young men received partial to full financial help from their parents. Sometimes fathers worked extra jobs to support their children's missionary work. Some families were supporting two missionaries at once, yet these financial difficulties were taken in stride. The families were excited about the prospect of their sons going on a mission and believed that they would be blessed for their efforts. As well, family members showed their support through letters over the two year sojourn. For example, Ben comments on his parent's reaction:

They love it. They're glad I'm out here. I don't think it would matter how tight the money got at home they'd still support me while I was out here. We're a close family.

Because young men are expected to go out when they are 19 years old, many high school friends leave around the same time. Often watching friends leave on their missions is a pivotal event and motivates the young men to decide to go. As Adam remarks: "Then when I got out of high school, when my friends started leaving, it really kind of hit me that I should go on a mission." Friends also stay in contact with each other while on missions.

Church members and family friends provide financial and emotional support. At the missionary farewell, a ritual ceremony in church given to the young men before their departure, family and friends shower the initiates with money, good wishes, and advice. And during the mission experience the local church members act as surrogate fathers and mothers to the missionaries. The missionary companions provided daily support and help. As well, the church and church officials were seen as being supportive and wanting to help the young men succeed. Even potential converts at times are supportive, as David noted, he and his missionary companion were affectionately referred to by the black community as their "preacher boys."

Not all aspects of the social environment were supportive. Girlfriends were seen as trouble to missionaries, since they would be distracted from their missionary work by thoughts of them. There were Mormon myths surrounding girlfriends. Stories abounded of "dear John" letters sent by girlfriends who could not wait for their return. A common theme was that women in general were trouble and should be kept at arms length. Eli recalled a story from his uncle's foreign mission experience:

...there were several occasions where he and his companion literally ran home from a meeting...because they (women) would want to chase them. They were American and its a ticket to the United States.

But the influence of the community extended beyond emotional and financial support. The religious indoctrination was pervasive. Many young men graduated from seminary school during their high school years. For four years classes meet for an hour a day, often before regular high school, to study religious texts. Students also attended their regular Sunday school meetings and midweek youth activities, and families are encouraged to have Monday night family home meetings for religious studies. Couple these influences with personal prayer, religious study, church youth groups, church social activities, church callings, and so forth, and there is a powerful religious training given to these young men.

Thus, the family and friends of the missionaries provide strong and consistent emotional and financial support for their missionaries. However, the spiritual preparation is so pervasive and comprehensive that it

is surprising how any practicing Mormon could choose not to go on a mission. In fact, one interesting group to interview would be practicing Mormons who chose not to go on a mission or Mormon missionaries who left the church.

Rite of Passage

Consistent with Genep's (1960/orig. 1908) three principle phases in rites of passage, the young men are separated from their past life, go through a stage of transition between their past and future lives, and are eventually reincorporated. However, this rite of passage is not the same for each young man and varies from a passage into adulthood to a religious coming of age.

Separation. Before entering the Missionary Training Center, all young men receive short, conservative hair cuts, purchase dark, conservative suits, and are "set apart" by the stake president, a regional church authority, who literally lays his hands upon the initiate, sets them apart as missionaries, and transfers responsibility to them. From this time forward until the man is released two years later by the same stake president, he is a missionary. Next they report to the Missionary Training Center (MTC) where they are physically set apart from their families, community, and past lives before beginning their mission. The young men head off to the MTC carrying all their possessions for the next two years in two suitcases and a briefcase. Often the initiates arrive at the MTC with their parents for an orientation. After the orientation, the parents leave through one door and the missionaries leave through another. For many young men, it is at this point that they realize the magnitude of what they are doing:

Well, the first day of course I was just freaked. They bring you in there and your parents leave. All of a sudden you're just standing there and you are freaking out going you're looking at two years. What am I doing? (Adam)

Life before and after the MTC is clearly different. This MTC experience allows the missionary to break with his old life and prepare him for his new life as a missionary. It is here that he get over being homesick and where he is intensely trained to be a missionary.

Not only is he separated from his past life, he is also severed from his past identity. He gives up one of the most individual of all possessions, his first name. He is no longer "John," he is now "Elder Smith." This new identity is reinforced by a name tag that is always worn, by a new uniform (i.e., dark suit, white shirt, black shoes,...) and by a "missionary hair cut." All Elders are the same in name and dress for all are equal servants of the Lord. Elders are identified not by where they have been (i.e., their home and past) but by where they are going (i.e., their field of labor, whether that be in Paris, Lima, or San Francisco).

Life in the MTC is characterized by asceticism. Few possessions from their past are brought or allowed. What few possessions are brought are related to their work. The primary possessions brought are

clothes: white shirts, conservative ties, slacks, suits, dark shoes,... The new clothes and haircut are put on as the new role is donned. Few of the men had worn these clothes before. If worn at all this uniform was worn to church. One or two other casual outfits were brought for the one day a week that the men had off to do personal tasks like shopping, laundry,... Other possessions that were brought were primarily spiritual in nature: religious books, pictures of Christ, poems,... The only real personal possessions taken were pictures of the family. There were no other possessions or symbols of their past lives.

Life at the MTC is different. One is thrown among new people, schedule, food, surroundings,... Every moment is scheduled, even recreational time is planned. All control and choice is removed from the initiates upon entry into the MTC. The schedules is seen by the missionaries as physically, mentally, and emotionally demanding. (This experience is more demanding for those who learn a language and stay for eight weeks rather than two weeks.) Graffiti discovered at the Language Training Mission, the predecessor to the MTC, refers to this place as the "rock" and "the ball and chain." Surviving this experience is considered to be an accomplishment, yet informants speak of a closeness and comradeship among the missionaries forged by common adversity.

Transition. After the MTC, the missionaries go to their respective fields of labor and begin their work. In Mormon scriptures, missionaries are commanded to go out "two by two," therefore they are assigned a companion with whom they spend every waking moment. Over the next two years they are assigned to different locations about every 4 to 6 months and are assigned new companions every 3 to 4 months on average.

While each mission experience is unique, some common elements exist. Each missionary entered the field confident only to experienced an initial period of adjustment during which he was not very effective.

When you come out you expect to get into every door you knock on cause you're so powerful and everything. You start knocking on doors and they shut them on you. It kind of hurts (Ben).

During this period most missionaries felt their testimony challenged. (Testimony is knowing in your heart that the scriptures are true as opposed to believing that they are true.) Day in and day out these men had to face 16 hour days of religious work that included tracting (door to door proselyting), studying, teaching, counseling, baptizing,... Personal and religious doubts would make this grueling schedule difficult. These adversities strengthened most missionaries' testimony. Similarly, one had to struggle with selfish desires and thoughts of the past in order to live up to the expectations for a missionary. As Caleb put it:

You represent the Church. You are the Church... You're not suppose to speak about other things--you are a missionary full

time...So you take on that pretty seriously...You don't talk about going out doing something else. You talk about scriptures and helping people out. Serving people, that's basically who you are...Your family's still the same and you're kind of different. You're still part of the family and you write and sign you name, you know, your first name, but as far as who you are you're kind of different...being a missionary servant, you always have to be serving you know. You have to kind of give up selfishness, your going to have give up worldly things.

This quote captures the transition that these men face.

A strong theme across the informants was that the mission was a sacred time and task. Their experience of time was different than their life before. In their pre-missionary lives, weekends meant something but here there was a "sameness" of days. The days are full but the months fly by. Being a missionary is like being a priest. These young men are set apart; they must remain celibate and refrain from all worldly concerns and stay focused on the spiritual realm. They feel different. Caleb talks about sitting on the plane looking at all the people around them and thinking "these people are just regular people...we're missionaries." Each man spoke of the physical weight of the responsibility that they felt. Many spoke of the physical sensation of spirituality as "goose bumps all over," "a calm feeling inside," and so forth. Other people treated them differently, "like they know everything." People "put you on a pedestal."

The difference between the mission life and their life after the mission is most dramatic upon their return. Adam describes his brother's return:

The thing he said was the hardest, was one week he was doing something that's the most important thing that someone can ever do--try to teach someone the truth--and how he returned back from God to filling ash trucks.

David said he "felt like bawling" upon his return. The return to the past life is often met with depression.

Reincorporation. While the results in this section are less complete, there were some preliminary findings. The new experiences faced by the young men had changed them: living away from home and family, being in a large town, living in the country, traveling overseas, and meeting new people and new ways of life. Many of the men spoke of a new tolerance for people of differing backgrounds. These men had learned new skills. Caleb talked of learning how to lead people and David spoke of overcoming his shyness.

However, most missionaries felt out of touch with the secular world and experienced some depression. Successful return seemed to depend on getting on with life and using the new skills and insights that they had acquired. Many returned missionaries go back to school or work. Others become involved in the church. Others get married.

CONCLUSIONS

To summarize, the Mormon missionary experience is a rite of passage. These young men are separated from their community and all of their worldly goods. They then struggle with the demands and challenges of missionary life that often lead them to reevaluate different aspects of their life. The time after the missionary experience is characterized by a the need to go on with their life while somehow integrating this experience into their life.

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TRANSITION IN TURMOIL: WHEN BECOMING AN ADULT INVOLVES CRIMINAL BEHAVIOR

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The transition from childhood to adulthood is a major rite of passage in all societies, and involves a significant change in status and role behaviors (Wright 1990). However, unlike societies in which adolescents develop new identities by emulating the actions of adults within their communities, American youths "have difficulty finding a preordained place in the social unit" (Lipsitz 1977; p. 5). Instead of supplying a clear path, our culture provides adolescents with a long period of emphasis on self-definition, with expectations of "open choice" and the possibility of social mobility.

While most individuals are able to confront this challenge and re-create the self into a positive, functioning adult member of the community, there are many in our society who fail to move successfully to adult roles and end up engaging in anti-social or criminal behaviors. According to Lipsitz (1977), one possible explanation is that these youths are faced with the additional burden that mobility and opportunity are closed to them because of poverty and lack of education. Thus, violent and illegal acts may become a way of gaining revenge against a society that imprisons them. For example, stealing may be viewed as a substitute for employment at low level service jobs that provide limited opportunities for advancement or higher incomes (National Commission on Youth 1980).

The purpose of this research is to balance the discussion of rites of passage by including a group of individuals who are finding this transition troublesome. To this end, twelve in-depth interviews were conducted with 17 and 18 year old males who were boarders at a residential facility for court adjudicated youth. All of these young men had been convicted of serious crimes including robbery and assault, burglary,

auto theft, and possession and selling of illegal drugs. Our discussion of this experience focuses on the lack of positive role models in their lives as well as the threatening nature of their day-to-day existence. Next, our attention is turned to their resulting desire to "live for today" through the acquisition of money and possessions, typically by unlawful means, and the subsequent value of these items to these youths. Finally, a brief conclusion presents preliminary analysis.

RESULTS

One of the greatest deficits among these young men is the lack of a positive male role model or mentor in their lives. To a person, they had troubled relationships with their fathers, who were distant, strict, reserved, or absent and often viewed negatively. Consider the following description provided by Jim:

See my Dad, he lives in [another state]. Like we don't get along all that good... My dad has always been for him [my brother] and like he's never had no time for me or nothing.

Occasionally, a brother or uncle took on this role, but this substitute usually fell short of providing necessary guidance and interaction. Further, the older men in their communities provided little in the way of additional mentoring, and were also seen as wishing they were young or acting young themselves, almost in competition with their younger counterparts. Thus, these men were often viewed in negative terms:

When I was younger, I would go up and say look at those bums. With their kids, drinkin'. I still say it when I'm walkin' with my friends. We see some, you know, we'll come back from the movies or something and it's real late at night and we'll look over there [and see men in our neighborhood] hangin' over all drunk, disgustin' and me and my, we all say 'I can't wait to get out of this neighborhood!' (Tom)

Further, the world that these young men inhabit is filled with violence and crime, and they feel that they must grow up fast in order to survive. Gangs and street fighting are common, and there is little one can do to avoid contact with the resulting brutality:

What's it like growin' up in [your neighborhood]?
It was tiring, I guess you could say 'Man I want to get out of here!' Like you look around and there was a situation, you figure out who you should be with, you gonna look around now and be like 'Where's so and so? He's dead. What about so and so? He's dead too, he got shot in the head' somethin' like that.' (Dan)

This combination of factors - lack of role models and a hostile environment - leads them to focus their attention on living for now with members of their peer group. Also, opportunities for engaging in criminal behaviors such as stealing cars and selling

drugs exist widely, and are considerably more rewarding than the menial careers that these young men are qualified to enter. Thus, to avoid the frustrations associated with the working world and to enjoy the things that are available within society, they tend to gravitate towards criminality in an almost addictive way:

And like a couple nights straight just, I just stayed up like all night, I don't know, stealing... cars and stuff. I brought, ahh, I had to put a lot of stuff in bags and stuff that I had about, I'd say about 150 dollars in cash like, change, dollars, stuff like that. And then we just caught the bus and went back to my house and dropped, dropped the stuff off and then emptied our pockets and all, put it in the jar and went back out later on and got another car. (Steve)

The resulting money received from such activities provides these youths with status and power in their communities and a sense of freedom that is not possible given the relative poverty in their communities:

My neighborhood's a real material neighborhood like if you don't have something you're shit. If someone's got something, you don't got it, you're shit. (Bill)

You gots to have money to impress, but not to just impress the girls. I got to have money to impress myself. Like I can't walk through a mall you know and be like 'Oh, I want to get that. I get that next week with my paycheck.' or 'I'll get that, you know, when I get the money.' You know I want that, I want to get that right now! I got to get that! (Jim)

CONCLUSION

The results of this study suggest that youths who live in a world of poverty and violence without appropriate role models and legitimate opportunities to raise their standard of living may resort to criminal behaviors in order to "live for today." While Belk (1988, p. 148) concludes that "self-definition through doing things may be preferred to self-definition through having things," their lack of skills and uncertain futures may lead them to search for "achievement through consumption" (Cox, Cox, and Moschis 1990, p. 158). Future research needs to explore this link between self-concept development and possessions more completely, and look for ways to enhance self-esteem through legally sanctioned methods such as skills development.

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RITUALS OF ADVERSITY AND REMEMBERING: THE ROLE OF POSSESSIONS FOR PERSONS AND COMMUNITY LIVING WITH AIDS
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"The past is hidden...beyond the reach of the intellect -- in some material object." (Marcel Proust)

In his classic work, *The Rites of Passage*, van Gennep (1908) identifies three stages in 'life crisis' -- separation, merger or transition, and reincorporation. During the states of transition, people experience what van Gennep refers to as liminality -- a boundaryless, marginalized experience often accompanied by isolation and suspension of social status. In short, liminal people are 'betwixt and between' two life stages or social roles.

Recently, scholars of consumer behavior have examined the role of disposition of objects during role transitions (Young, 1990; Roberts, 1990; McAlexander, 1990). A central theme in these works is the notion that objects facilitate and reflect identity transformation during various life passages. Furthermore, in some transitions the symbolism and manipulation of possessions is a central feature of the ritualized transformation (e.g., the removal of wedding rings to symbolically mark a divorce).

Yet few passages are as dramatic or adverse as those experienced by persons facing a terminal illness. The purpose of this study is to explore the role that disposition of objects play in a residential community for persons living with AIDS (PLWA). A major premise in this study is that the meanings, forms, and functions of dispossessing are inextricably linked to the liminal nature of the AIDS illness and the community setting.

Liminality and Life-threatening Illness

Works on the social construction of life-threatening illness (LTI) points to the liminality that accompanies the chaos and threat to physical and social identity. Physical identity is severely shaken by the uncertainty of the diagnosis, the ambiguity surrounding complex symptoms, and the loss of control in predicting remissions and ultimately the time of death (Comaroff & Maguire, 1981; Murphy, 1987). For persons living with AIDS, the range of opportunistic infections, the side effects of new

medications, and the unpredictable onset of disabling symptoms heightens a sense of physical liminality.

Social liminality is often experienced by PLWAs as their personal identity is threatened by the stigma of this disease and loss of social ties. Furthermore, the images associated with AIDS are so symbolically powerful, that this illness has emerged as a metaphor for societal paranoia and chaos (Sontag, 1989). Murphy et al. (1988) observed that disability creates liminality, since the disabled are neither well, nor sick, "declassified but are not yet reclassified; they have died in their old status and are not reborn in a new one" (p. 237). For those unfamiliar with the extended prognosis and fearful of AIDS, PLWA's may represent the living-dead, a state which is betwixt and between.

Liminal Settings

Between diagnosis and death, there can be intermediary stages or multiple role transitions in redefining the personal and social self in coping with a LTI. Changes in a living situation often signals a transition for personal identity, particularly for those moving from independent living to assisted living. These physical moves in coping with a LTI can become dramatic demarcation points, especially when the new environment is designed for those who share a similar illness.

In response to the needs for housing, social services, and medical assistance for PLWA, there has been a rapid growth in congregate living facilities specifically designed for PLWA. The variation among these residencies makes it likely that some settings are more liminal or ambiguous than others. For example, a hospice is specifically designated and designed for those in their final stages of dying may be less liminal than other forms of congregate living for those during various stages of the illness, even before the onset of frail health. Regardless of its mission, residential facilities for PLWA openly acknowledges the illness, heightens awareness of personal death (Unruh, 1983), and provides a reference group of comparable others. As Frankel (1989) demonstrates in her study of a therapeutic community, socialization to these environments can produce a dramatic shift in self-concept, altering the attributions for self and others.

Disposition of Possessions

Personal possessions serve numerous identity functions as people move through various life transitions and specifically during death when artifacts become the symbols by which individuals wish to be remembered (Unruh, 1983). But possessions are also vehicles for social communication (Olson, 1985). Herein the symbolic meanings of the object itself and its use in facilitating interaction can serve as rituals for departing, as spiritual companions for those who survive, and as visible markers for reaffirming community purpose.

The goal of the present study was to explore and obtain descriptions of the role of disposition of possessions for PLWA in a residential setting for similar others. More specifically, this study examined the phases of the disposition of possessions and the

significance of personal possessions for the community at large.

METHODOLOGY

This study was conducted in a congregate care facility for PLWAs, herein referred to as "Homelife." Founded in 1988 by a religious order, this facility houses 26 PLWAs and is designed for those who are still ambulatory and self-sufficient in daily activities. The demographic profile of the residents during the past 2 years shows a highly diverse population (i.e., age, race, gender, education, income), with an average stay of approximately 5.8 months. Approximately 80% of the residents remain in the home until their death or final transfer to another facility.

Participant-observation based on 2.5 years of volunteer work, transcriptions from a documentary film on Homelife (Adelman & Shultz, 1991), initial interviews on community life (n=22) and with key informants (n=5), form the corpus of data for the following thematic and interpretive analysis.

RESULTS

Reassembling and Disassembling the Self

The disposition of objects is inextricably linked to the psycho-social orientation of the residents to Homelife. Expectations and attitudes toward this community will be influenced by the ways in which residents discard and use possessions to reconstruct their identities at Homelife. Furthermore, the process of reconstructing social identity does not take place in a closed relationship between the resident and the possession. Rather social attachments with community members plays a critical role in determining the how possessions will be used and to what affect.

As with any relocation, objects are retained and discarded based on expectations for the new setting. For some residents, entering Homelife signals what one informant referred to as "the last stop" -- the final resting place. This acknowledgement of death, coupled with the pragmatic constraints of small private rooms, can initiate a disposition of major assets long before death is inevitable.

For those who viewed Homelife as a temporary place until recovery, there was minimal effort to reassemble the material world. In some cases, minimalist reassembling appeared to reflect a denial of the illness and lack of commitment to community life. One very affluent resident placed all his possessions in storage for a later time when he recovered and could move out. During his eight month stay at Homelife, he sustained a social detachment from community members. Although he remained critically ill, he continually made plans to move-out. With the exception of a fur coat, a few clothes, and a small television, his room remained stark and in perpetual disarray until his death.

However, most residents, even those who were homeless and with few possessions, use their possessions to reconstruct personal living spaces as a permanent home. Although these possessions were the primary form of personalizing their living

quarters, there was also the accumulation and display of others' possessions. Acquisitions from other residents formed a symbiotic materialism with the community, where the resident's collective identity is fostered by his or her attachments to the possessions of others. A long-term resident who entered the home with two bags of clothes, after two years and several close relationships with dying residents, her room is now filled with their possessions. She notes, "I made this room for memories and good feelings."

Studies of possessions reveal their significance in extending the self (Belk, 1988). Even the organization and display of remnants in the form of scrapbooks, provides a portable secular ritual for assembling the self (Katriel & Farrell, 1991). The transition into Homelife serves as both an environmental and psycho-social boundary marker for incoming residents. Forms of environmental schematization (Holahan, 1978) or reconstruction of the material world within this community setting is central to the role of objects in the final transition to death. Findings from this study indicate that possessions play an important role in reassembling and disassembling the self as residents enter the community. As such, the disposition of possessions as a dying ritual is embedded within the initial transition to the community setting and the development of social involvement with fellow residents.

Collective Memory

The personal possessions that residents leave to fellow members or to Homelife have become a way of incorporating the passing member into the community culture. As with individuals, these possessions provide a visible legacy that triggers stories for the community at large of the incidents and personalities of those who have died. In her study of Holocaust survivors, Myerhoff (1982) found that life stories not only functioned to remember the past, but also to "re-member" -- a special type of recollection that calls

"attention to the reaggregation of members, the figures who belong to one's life story, one's own prior selves, as well as significant others who are part of the story. Re-membering, then is purposive, significant unification, quite different from the passive, continuous fragmentary flickering of images and feelings that accompany other activities in the normal flow of consciousness...It becomes a tidy edited tale" (p. 111).

Although the process of re-membering may remain more fragmentary and less intense for residents than that experienced by Holocaust survivors, PLWA are survivors of a catastrophe in which the search for meaning is essential to account for their suffering and to circumvent despair.

The symbolism that surrounds possessions and the stories evoked by their presence offers an opportunity for residents to re-member with those before them and to develop a collective memory for

the community. For re-membering, linkages must be found "between the group's shared, valued beliefs and symbols, and specific historical events" (p. 111), which may evolve to stories and myths. This form of local knowledge becomes evident at Homelife in the socialization of new members, in the references and stories about past members, and in the naming of specific objects that have become household ornaments.

CONCLUSION

Congregate living for those facing a LTI can relieve or create chaos and uncertainty for personal and collective identity. Disposition of possessions can play a critical role in reassembling and disassembling the self from initial entry to the community to the final stages of dying. Because a major threat to any community is the loss of its members (Kanter, 1972), the disposition of possessions can enhance a sense of *communitas* (Turner, 1969) or psychological support among residents by providing a collective memory for those who have died and evidence for those who are living -- that they too shall be remembered.

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Consumption and the Crisis of Teen Pregnancy: A Critical Theory Approach

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ABSTRACT

Teen pregnancy is a growing problem in the United States. This paper provides preliminary findings from a critical theory study on how expectant teen mothers prepare materially for childbirth. Three contradictions between the subjective and objective situations surrounding teen births are discussed. The paper concludes by examining possible theoretically grounded programs of action for dealing with the problem of teen pregnancy.

INTRODUCTION

The role of consumption during life transitional periods has received increasing attention in recent years (Schouten 1991a, 1991b; Roberts 1991; McAlexander 1991; Ozanne 1992; Wright 1991; Young 1991). Pregnancy may also be considered a period of transition, a time "betwixt and between" (Turner 1967) the expectant mother's past state as a non-mother and her future state as a mother. Consumption is an important part of this transition into motherhood as the expectant mother prepares materially for the upcoming birth of the child. The purpose of this study was to examine the role of consumption during the transition into motherhood.

As with previous studies of consumption and transition, we used indepth interviews in naturalistic settings to gather our data, and interpretively analyzed the results (McCracken 1988). Our initial informants consisted of first time parents or mothers, and we sampled across various populations for diversity. Specifically, we interviewed a middle class couple in their late 30's who had a home birth attended by a midwife, a couple in their 20's with financial constraints; an orthodox Jewish couple (Hasidic); an unwed hispanic teen mother; an adoptive mother; and an unwed teen Appalachian mother.

The initial results confirmed our expectations that consumption did play an important part during pregnancy, but we serendipitously discovered a potentially more important issue. The parents who needed material help the least received the most help (middle class couples), and those who needed the most material help, received the least help (unwed teen mothers). Hence, the focus of the study shifted from an interpretive study of consumption during pregnancy to a critical examination of the material needs of teen mothers following the critical theory methodology set forth by Murray and Ozanne (1991). Table 1 provides a summary of the critical theory methodology they laid out. This paper describes the preliminary results of the critical theory study.

CRITICAL THEORY

Initial Stage of Critical Theory Research

The concrete and practical problem investigated in this study focused on how teen mothers prepared materially for their children given that they lacked the economic and social support of married, middle-class women.

This problem is both concrete and practical. Teen pregnancy is a growing problem in this country. Between 1960 and 1990 there was more than a five fold increase in teen births, from 91,700 to 500,000 (Dash 1989, p. 24-25; Los Angeles Times 1990). These births cost the federal government over \$21 billion annually in Food Stamps, Aid to Dependent Children, Medicaid, and other social service offerings (Chicago Tribune 1990). One in six children of teenage mothers has a low birth weight and is more likely to experience physical and cognitive problems (Barnett 1987). In addition, teen mothers are half as likely to graduate from high school than the rest of the teen population, and, if they are married, they are 3 times more likely to be divorced or separated than couples who married in their 20's. One study showed that approximately 90% of the inmate population at Attica State Prison was born to teenage mothers (Evans 1986). Hence, the problem of teen pregnancy is both concrete and practical.

The relevant groups involved with this problem includes the teen mothers; the birth fathers (who frequently do not participate in the upbringing of the children); the children; grandparents and other members of the extended family; social service workers; and health care workers. These relevant groups were studied in this research.

Data Collection Stage of Critical Theory Research

Murray and Ozanne (1991) identified five steps in the data collection process. This research is currently at step three.

First Step

In the first step, researchers attempt to gain a subjective understanding of the informants they interview. Our subjective data was collected through participant observation and indepth interviews. Specifically, we have conducted participant observation of a support group for teen mothers who are still in school. Since most teen mothers drop out of school, we are also planning to participate in a teen mother support group for high school drop outs. We also conducted several indepth interviews with teen mothers at the health department of a small county in the southern part of the United States. We are planning to interview birth fathers for their perspective, as well as extended family members. Finally, we interviewed social service workers, and

¹The authors would like to thank Julie L. Ozanne for her comments and help with data collection.

TABLE 1
CRITICAL THEORY METHODOLOGY

Initial Stage of Research

1. Identify a concrete practical problem.
2. Identify all groups involved with the problem.

Data Collection Stage

1. Construct an interpretive understanding of each group.
2. Develop an historical-empirical understanding of relevant social structures.
3. Look for contradictions between the subjective and objective understandings.
4. Discuss alternative ways of viewing the situation with the groups involved.
5. Initiate programs of action to change existing social conditions.

Adapted from Murray and Ozanne (1991)

plan to interview physicians, health care administrators, and other relevant health care workers.

Second Step

The second step involves the examination of the historical development of the relevant social structures or processes. We have examined the legal structure of the health care system in the state in which we are conducting the study, as well as the health care and the social service structures to obtain a more objective understanding of the structures that impact on teen mothers.

Third Step

The third step involves coming to a dialectical understanding of the subjective and the objective data, and looking for contradictions between the intersubjective understanding and the objective social conditions. The remainder of this paper will examine in detail the initial contradictions we uncovered that affect teen mothers.

Breast Feeding. Teen mothers are unlikely to breast feed their babies. They don't feel it is important, they feel uncomfortable with large breasts, and they often rely on others to help tend the children while they work or go to school. Also, since they are sexually active, they feel some role conflict between "sharing" breasts with babies and boy friends.

Since most of the teen mothers are impoverished, they can't pay for the services of a lactician or other medical professionals while in the hospital to teach them how to breast feed or what to expect during the engorgement process. It appears as if the goal of the health care system is to get the teen mothers in and out of the health care system as fast as possible since their stays are usually being paid for by Medicaid, the state supported health care plan for economically disadvantaged residents, and the hospitals are losing money on each teen birth. There is also evidence that since teen births were usually traumatic and painful, health care workers want to spare them the further pain of engorgement and breast feeding.

This contradiction exposes the need to educate teen mothers about the benefits of breast feeding. However, our research showed that it would be better to stress the economic benefits of breast feeding (e.g., money saved) rather than the health benefits, since the

teen mothers we interviewed or observed were largely unaware of the nutritional or health benefits of breast feedings, or these benefits were unimportant to them. As consumer researchers, we can help by producing and educational literature that is meaningful for and targeted directly to teen mothers, instead of using the traditional educational approaches that stress nutritional reasons for breast feeding.

Child Birth Services. The teen mothers we interviewed or observed are almost all terrified of giving birth, yet they are the least likely to seek out social services and child birth classes. Expectant teen mothers at the support group were so terrified of the thoughts of giving birth that they turned white and felt faint during a hospital visit. This topic came up frequently. Teen mothers we observed or interviewed rarely attended any child birth classes offered by the local hospitals or social services organizations.

Our research revealed there were two principle reasons for this. First, the teen mothers, who often did not have a partner with whom to attend these classes, were very intimidated by the older, more financially secure, married (or at least monogamous) couples who attended these classes. And second, since many teen mothers were impoverished and under the legal driving age, many had no way to get to the classes, even if they had the desire to attend.

Our research shows that the teen mothers have unique and pressing problems that are not being addressed by the prepared child birth classes being offered. This finding suggests a production orientation to prepared child birth classes rather than a market orientation may exist. The needs of the teen mothers are simply not being met by the hospitals and social services groups offering these classes. We suggest tailoring classes, following the marketing concept, to the specific needs of the teen mothers. Specifically, social services needs to design prepared child birth classes targeted to teen mothers, and perhaps even taught by a former teen mother. In this way, the participants will not feel out of place by attending classes with older, more financially secure middle class couples. Additionally, these classes should be prepared in conjunction with existing social services programs, since some programs already provide transportation for teen mothers to other social

services offerings. Or perhaps they should be held near to government subsidized housing or other low income areas in which most of the teen mothers reside.

Legal Status of Teen Mothers. Teen mothers are legally required to take care of their children, yet, until they are 18 years of age, they cannot legally sign contracts, such as those necessary to rent a trailer or apartment. On the one hand, they are legally responsible for providing shelter for and taking care of their children, and on the other hand, they are legally prevented from obtaining shelter. Since many teen mothers are estranged from or no longer live with their parents or with the birth fathers, this is a particularly difficult situation for them to be in.

A related problem focuses on health care. On the one hand, the teen mother can authorize medical services for her child, but, on the other hand, she must get parental authorization if she is to receive any medical attention at all.

Teen mothers are treated like children, but they have an adult job to do. These two legal constraints may prevent the teen mother from obtaining the shelter and/or medical services needed to care for herself and her child. As researchers interested in consumption, it was curious for us to discover legal constraints that thwarted consumption in two such crucial areas as shelter and medical care. Action in this area is necessary to change the legal standing of teen mothers, or at least allow them the legal rights to take care of their children.

Fourth and Fifth Steps

The fourth step will involve discussing alternative ways for each of the relevant groups to see the situation of the teen mothers, and the fifth step will involve participating in a theoretically grounded program of action to change the existing social conditions that are oppressing teen mothers. While we have not yet entered the fourth and fifth stages with our research, our potential contributions as consumer researchers may include increasing awareness of the contradictions faced by teen mothers to health care and social services workers, lawmakers, and other relevant parties to allow the teen mothers access to the goods and services they need to meet their legal obligations as parents. Dissemination of the results of this study might include traditional outlets (e.g., journals, conference proceedings) as well as nontraditional outlets (e.g., TV and radio talk shows, health care trade publications, *Reader's Digest*) to raise public consciousness of the unique and pressing consumption needs faced by teen mothers and their children.

CONCLUSION

Teen mothers, who are usually impoverished and need material goods the most to prepare for the upcoming births, often receive the least material help. This paper detailed the preliminary findings of a critical theory study examining the material problems faced by teen mothers. Specifically, three contradictions derived from subjective and objective research were discussed, and potential, theoretically grounded courses of action set forth.

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Consumer Inference

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ABSTRACT

The importance of inference processing has been noted by many distinguished consumer researchers (e.g., Alba and Hutchinson 1987; Huber and McCann 1982; Johnson and Levin 1985; Kardes 1988; Meyer 1981; Sawyer 1988; Simmons and Lynch 1991; Yi 1990). The urgings of these researchers and the importance of this topic has led to an increase in research activities, and our understanding of the phenomenon. However, our understanding of inference processing is still limited. Thus, this session attempted to further stimulate inference research by focusing on recent empirical research on how consumers "go beyond the information given" to fill gaps in knowledge that inevitably follow from the reliance on incomplete information. Furthermore, the session endeavoured to facilitate the development of an integrative theory of consumer inference that can be useful in understanding consumer response to missing information.

OVERVIEW

Consumers are often required to make judgments and purchase decisions about products on the basis of limited or incomplete information. Because complete information is rarely available to consumers, it is important to understand how consumers respond and adapt to incomplete information.

The four papers presented in the special topics session investigated consumer inference processes using several very different approaches: some have strategically deleted portions of the text of advertisements to examine the persuasive impact of inferred versus explicit claims; some have manipulated the contents of brand-by-attribute matrices presented on an information display board to examine the relationship between information search and decision making; and some have used Bayesian approaches to examine the diagnostic value of inferences. Although very different products, contexts, and methodologies have been applied, a unified theoretical framework is beginning to emerge that may be useful in addressing unresolved issues. Specifically:

1. All four papers emphasize that several different responses to missing information are possible. Consumers often fail to recognize that judgment-relevant information is missing. When omissions are overlooked, inferential activity is unlikely. Even when omissions are detected and when gap-filling inferences are likely to be generated, several different informational bases for inference making are often available and several different mechanisms for producing inferences can be activated.
2. All four papers adopt a contingency perspective. The results of Sawyer's experiment show that the likelihood of inference generation depends on the consumers' level of need for cognition and on the strength of the link between arguments and conclusions. Yi's study shows that attribute information is often open to multiple interpretations and that the accessibility of judgment-relevant information stored in memory influences which interpretation is likely to be inferred. Simmons and Lynch's experiment shows that inferences are likely to be formed only when several conditions are met: (1) the consumer must detect an omission, (2) an appropriate inference rule must be accessible from memory, and (3) the inference must be perceived to be useful for achieving the goals of the consumer. Kardes, Kim, and Lim show that prior knowledge produces multiple effects: knowledgeable consumers are more likely to generate inferences, and if inferences are generated, knowledgeable consumers are more likely to use their inferences to guide subsequent judgments and decisions.
3. The papers suggest consumer inference processes have important managerial implications across a wide variety of settings (advertising, product management, consumer decision making), attesting to the richness of the concept. Sawyer and Yi focus on the development of creative, new, and effective ad executions. Simmons, Lynch, Kardes, Kim, and Lim focus on the perceived diagnosticity of inferences and on the implications of perceived diagnosticity for consumer decision making. The perceived diagnosticity or importance of various attributes and benefits also has important implications for the design of products.

The session, thus, addressed some unresolved issues in consumer inference processing. Issues such as when inference are formed, what inferences are formed, and the effects of of these inferences on judgment and choice were discussed in the papers. The abstracts provided by the authors are presented next.

ABSTRACTS

Determinants of the Persuasiveness of Open-Ended versus Closed-Ended Advertisements

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Open-ended advertisements do not have an explicit conclusion that tells the audience what it

should infer from the information in the ad. Alternatively, an ad can be closed-ended and specifically tie up loose ends and offer a message conclusion for an audience. There are several reasons why communication researchers predict that open-ended messages might be more persuasive than closed-ended ones (see Sawyer 1988 for a detailed review). Perhaps most importantly, the absence of any obvious conclusion may lead a motivated audience to try to infer one. In order to reach a conclusion, a motivated audience is more likely to process the central message arguments (Petty and Cacioppo 1986) of open-ended messages since they are unable to rely on the message conclusion available in a closed-ended message. An audience motivated to infer a conclusion is more likely to generate its own thoughts and inferences when exposed to an open-ended ad than when exposed to a closed-ended ad (Kruglanski 1980). Attitudes resulting from effortful self-generated inferences should be more accessible (Kardes 1988) and more positive than attitudes resulting from less effortful processing of inferences explicitly provided in a message (Linder and Worchel 1970).

However, this potentially greater persuasiveness of a no conclusion message is accompanied by several risks. First, the audience may not process the central message arguments and, with no explicit conclusion to summarize the intended position of the message, be unable to infer a conclusion. Second, a message recipient might process the information but either draw no inference from that evidence or draw a different inference than intended. Therefore, it would seem important that the audience be sufficiently motivated to process the contents of an open-ended message in order to make a conclusion and that the message be structured so that the audience is able to make the conclusion intended by the message.

Sawyer and Howard (in press) confirmed the above speculation that the audience had to be involved in order for open-ended messages to be more persuasive than closed-ended ones. This result was replicated across several measures (including brand evaluation, purchase intention, and choice), two products, and two experiments and held after a one week delay as well as immediately after ad exposure. Although it is uncertain what exact process(es) account for these results, it seems that inferences play an important role. Kardes (1988) used a brand evaluation response latency procedure and found that involved subjects viewing an open-ended advertisement were more likely to have already formed an inference (consistent with faster responses) compared to involved subjects exposed to a closed-ended ad. However, unlike Sawyer and Howard's results, Kardes did not find that the open-ended ads were more persuasive; although the attitudes were more accessible, they were not significantly more positive.

This presentation will discuss the role of inferences in the persuasive process(es) evoked by open-ended advertisements and then present the results of a new experiment that tests for additional moderating variables. Two variables - one measured and one manipulated - are examined. The first is the

subject variable of *need for cognition*. Subjects high in need for cognition might be more likely to infer a conclusion just as those who are more educated (Cooper and Dinerman 1951). Since the open-ended message requires more extensive and effortful processing, a closed-ended message may leave considerably less room for further elaboration. Need for cognition might interact with the type of message such that open-ended messages are especially effective for an involved, high need for cognition audience, whereas the effectiveness of closed-ended messages might not vary for involved audiences with varying levels of need for cognition.

A second variable is the *obviousness of a conclusion*. This variable might explain the absence of an effect on attitude valence in Kardes' study. The advertisement in Kardes' study frequently mentioned the brand name (nine times in the open-ended ad and six times in the closed-ended ad), contained a large picture of the product captioned with the brand name, and never mentioned any other brand. Thus, even a casual processing of either ad might have led to a realization of which brand was concluded by the ad to be the best. Although subjects in Kardes' two message conditions differed in whether they came to a conclusion about whether the advertised brand was superior on three attributes they may not have differed in whether they made a conclusion about brand preference. If both messages were equally likely to result in conclusion drawing about the brand, then no difference in persuasion should result. In Sawyer and Howard's experiments, an equal amount of information was given about each of four competing brands in a comparative ad format and the target brand was not highlighted in any way. Thus, a conclusion about which brand was best was not possible unless a subject processed at least some of the details of the ad information that would lead to that conclusion.

The present experiment manipulates the obviousness of the conclusion and crosses that variable with message type (open-ended vs. closed-ended) for involved subjects. The obviousness of the message conclusion is accomplished by adjusting the two messages in the Sawyer and Howard study to create brand name in the opening headline (e.g., "Edge wants you to discover the Difference" vs. "Discover the Difference"), label the pictured product with the brand name in the comparative ad information (vs. not highlighting) and include the brand name in the bottom copyright (vs. a non-linked parent name).

Paired comparisons and a test of the interaction between the obviousness of the sponsoring brand and whether a message is closed-ended or open-ended will be used to assess whether, as predicted, the non-obvious sponsor, open-ended ad is most persuasive and there is little or no persuasion difference among the other three ads - the obvious sponsor, open-ended ad and the two closed-ended ads. Other measures that attempt to assess subjects' perceptions of their effort in processing the ads' information and whether they made inferences will also be analyzed.

It is expected that this presentation will lead to a better understanding of the conditions conducive to effectiveness of an open-ended ad which depends on

the audience making inferences on their own instead of merely processing the advertiser's conclusion in the ad. Together with the other papers in this session, this presentation should help the audience better understand the role of inferences in persuasion and information processing.

Consumer Inference Making and Indirect Effects of Advertising

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Advertisements frequently emphasize salient attributes of products so that consumers' beliefs about these attributes will change. It is commonly accepted that changes in beliefs lead to changes in attitude. Much research has therefore focused upon changes in attacked beliefs and related these belief changes to attitude change. However, substantial evidence suggests that an ad can affect unattacked elements as well. Since a consumer may infer beliefs about aspects of a product that are not mentioned in the ad, ad messages about one attribute can indirectly influence beliefs about other product attributes. That is, an ad may have indirect effects on unmentioned beliefs as well as direct effects on target beliefs.

Furthermore, an ad often contains information that can be interpreted in several different ways. For example, when consumers hear that a car is large with luxury features, they might infer either that the car will provide good riding comfort or that the car will have low gas mileage. In such cases, the product evaluation will depend on which inference is drawn from the presented information. As a consequence, we should understand how and when these inferences are made in order to fully understand advertising effects.

This paper proposes that indirect effects of an ad on unmentioned beliefs are a function of attribute interrelationships and information accessibility. The proposed presentation will include the theoretical development extending research on information accessibility as well as the results of studies conducted to test the theoretical framework. This research should be of interest to researchers who study basic information processing, inference making, attitude change, and consumer responses to advertising. The research is also relevant to practitioners of advertising. By investigating the moderator variables of inference making, this research will provide insights into the situations when strong indirect effects of advertisements are expected.

Contingent Inference Making

Carolyn J. Simmons, University of Illinois

John G. Lynch, Jr., University of Florida

Recent evidence suggests that inferences about missing attributes are common only under certain conditions (Dick, Chakravarti, and Biehal 1990; Lim, Olshavsky, and Kim 1988; Simmons and Lynch 1991). Dick et al. have presented an integrative model that predicts that an inference about a missing attribute will be made under the following conditions: the missing attribute is noted, a relevant inference rule is accessible in memory, the inputs to that rule are also accessible, the inference is believed to be diagnostic, and alternative diagnostic inputs are not

accessible or available externally. We manipulated factors that determined whether a missing attribute would be noted (competitive products did or did not provide information about the target missing attribute), the accessibility of an inference rule in memory (subjects were or were not reminded of a previous class exercise in which they were given the inference rule), and the relative diagnosticity of an inference for the task at hand (low diagnosticity = evaluation task or choice task in which neither alternative was described in terms of the target missing attribute, high diagnosticity = choice task in which one alternative was described in terms of the target missing attribute -- the assumption is that the desire for dimensional comparisons will make an inference highly diagnostic in this case). The inputs to the inference rule were always externally available. The results were generally consistent with the Dick et al. model. Inferences were unlikely unless the context drew attention to the target missing attribute. Increasing the accessibility of an inference rule increased the incident of inferences only when the inference was highly diagnostic.

Consumer Expertise and the Perceived Diagnosticity of Inferences

Frank R. Kardes, University of Cincinnati

John Kim, Oakland University

Jeen-Su Lim, University of Toledo

Recent empirical evidence indicates that consumer expertise is an important determinant of the extent and the direction on inferential activity about products (Maheswari and Sternthal 1990). Consumers who are knowledgeable about a particular product category possess the cognitive resources required to elaborate extensively on product-related information, and consequently, consumers are more likely to generate elaborative inferences spontaneously when level of prior knowledge is high (versus low). Given that inferences had been formed, consumers are more likely to trust their inferences and consider their inferences valid when prior knowledge is high. In contrast, when consumers consider themselves unknowledgeable about a particular product domain, they may distrust their inferences so much that they may consider explicitly-provided conclusions to be more valid than their own self-generated conclusions.

Subjects were exposed to four sets of arguments implying four separate conclusions about the benefits of a target product (a compact disc player). In spontaneous inference conditions, subjects were exposed to the arguments only (the conclusions were omitted). In prompted inference conditions, subjects were exposed to the arguments only and were asked to answer questions about the implied conclusions. In explicit conclusion conditions, the implied conclusions were presented explicitly. Subjects were blocked into high and low prior knowledge groups on the basis of their scores on a ten-item multiple-choice test about disc players.

For each implied benefit (conclusion), subjects estimated the percentage of high- versus low-quality CD players possessing the target benefit on scales from 0 (0 percent) to 10 (100 percent). Bayesian

likelihood ratios were computed from these subjective probabilities following Herr, Kardes, and Kim (1991). The ratio provides a direct measure of perceived diagnosticity. The results revealed that low knowledge subjects perceived the target conclusions as nondiagnostic in spontaneous inference conditions, moderately diagnostic in prompted inference conditions, and highly diagnostic in explicit conclusion condition (although the latter effect was not statistically significant). For high knowledge conditions, the results were nonsignificant. However, the direction of the diagnosticity results were opposite of the low knowledge conditions. High knowledge subjects viewed the target conclusions as moderately diagnostic in explicit conclusion conditions, and highly diagnostic in spontaneous and prompted inference condition. This pattern suggests that low knowledge consumers are unlikely to generate inferences spontaneously, and if they are prompted to generate inferences, they regard their self-generated inference to be less diagnostic than explicit conclusions. High knowledge consumers, on the other hand, spontaneously generate inferences and tend to view these self-generated conclusions as more diagnostic than explicit conclusions.

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Mundane Everyday Consumption and the Self: A Conceptual Orientation and Prospects for Consumer Research

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ABSTRACT

The self--a sense of who and what we are--is offered as the organizing construct through which people's everyday activities can be seen as significant. The mundane tasks of daily life (and the consumer behaviors necessary to enact them) deserve greater attention than has been accorded them because they are inextricably intertwined with people's sense of well-being. A conceptual orientation to this genre of research suggests the kinds of issues involved as well as the variety of investigative approaches to each that seems congenial. At a minimum, the realm of mundane activities affords researchers the opportunity to select between buyer (acquisition) behavior and consumer (use and disposition) behavior as a focal perspective.

INTRODUCTION

"First, the very idea of consumption itself has to be set back into the social process, not merely looked upon as a result or objective of work. Consumption has to be recognized as an integral part of the social need to relate to other people, and to have mediating materials for relating to them. Mediating materials are food, drink, and hospitality of home to offer, flowers and clothes to signal shared rejoicing, or mourning dress to share sorrow. Goods, work and consumption have been artificially abstracted out of the whole social scheme. The way the excision has been made damages the possibility of understanding these aspects of life" (Douglas and Isherwood 1979, p. 4).

Consumer research continues to emphasize pre-acquisition phases of consumption. Consequently, the goods-in-use and disposition phases remain underexplored. Similar to Douglas and Isherwood, we submit that to understand *consumer* (cf. buyer) behavior, it should be studied as it is embedded in daily life--i.e., as part-and-parcel of mundane everyday consumption.

"Mundane and everyday" refers to those activities which constitute the bulk of daily life -- preparing meals, relaxing, or getting to work, for example. *Mundane everyday consumption* occurs while and as an integral part of negotiating these daily life-tasks. Although the study of such ordinary embedded consumption is not new (e.g., Boyd and Levy 1963), it remains an underspecified aspect of consumer behavior.

We believe that the *self* (James 1890) affords a particularly powerful lens through which ordinary consumption behavior can be viewed inasmuch as many of our daily life-tasks constitute self-enterprises--e.g., personal- and social-identity

development. As Belk (1988) has argued, possessions afford a person (and others) a sense of both who and what s/he is. In the context of Sartre's (1943) distinctions, we see the product clusters that people use ("having") as facilitating their daily activity patterns ("doing") and that these two, in combination, reflect people's sense of self ("being"). Thus the ordinary things people do (and consume) every day have profound implications for their sense of well-being. It seems remarkable that such fundamental concerns do not reside at the core of contemporary consumer research.

This paper is intended to: (1) direct researcher attention to mundane everyday consumption as a not-so-mundane and, in fact, rich research topic; (2) provide conceptual direction for its exploration; (3) illustrate that significant research questions are raised by such study; and (4) encourage consumer researchers (of whatever metaphysical persuasion) to study mundane everyday consumption phenomena.

MUNDANE CONSUMPTION: A CONCEPTUAL ORIENTATION

As noted above, mundane consumption is self-relevant; what we consume--in order to perform even ordinary human activities--both contributes to and reflects our sense of identity. Belk (1988) has proposed that possessions not only define who and what we are; they also afford us a link with the past and provide a marker for the future. Given such a self-as-nexus construal, it is not surprising that a variety of *human* concerns (quite apart from the traditional consumer research agenda) has been mirrored through the self--developmental psychologists, clinical practitioners, sociologists and anthropologists, as well as a host of critics (particularly of a post-modern bent) all see it as a reflection of individual and social mental health. However, we construe self broadly and do not implicate a particular self theory. Any number of theoretical orientations on the self--e.g., independent vs. interdependent (Markus and Kitayama 1991), public vs. private (Baumeister 1986), or social identity (Stryker 1980)--might be useful for studying mundane consumption. But following Sarbin and Allen (1968) and Wicklund and Gollwitzer (1982), we believe that mundane consumption is linked more closely with *specific aspects* of the self (e.g., cyclist, parent) than with individuals' wholistic self, even though consumer researchers traditionally have studied the relevance of consumption to people's wholistic self-concept (Sirgy 1982). Further, since the self is fundamentally dynamic, a developmental (Kegan 1982) or cultivation (Csikszentmihalyi and Rochberg-Halton 1981) approach to studying the self/consumption link may prove most beneficial.

Casting mundane consumption as self-relevant raises three characteristics of the phenomenon to which we believe consumer researchers have paid insufficient attention: (1) mundane consumption involves the patterned use of product clusters; (2) it occurs within an activity stream; and (3) it frequently involves social interaction. Each of these characteristics presents opportunities for consumer researchers.

Product Sets

Mundane consumption involves patterned use of sets of products. Although generally studied in isolation, rarely are products consumed that way (Boyd and Levy 1963; McCracken 1988; Michael Solomon 1988). Mundane consumption entails using sets of interdependent and complementary products in a particular way. A cyclist's bicycle, cycling shorts, shirt, shoes, helmet, and gloves exemplify the utilitarian and symbolic coherence of such sets. Product clusters cohere around and enable an aspect of the self (Kernan and Sommers 1967). This product-cluster-in-use orientation contrasts with traditional symbolic consumer behavior research which adopts a communication or person-perception perspective. Visible consumption patterns influence our impressions of an unknown person (Belk, Bahn, and Mayer 1982), for example, and the personality traits we attribute to them (Holman 1980). In addition, people can describe product clusters characteristic of certain cultural categories of "person types" (e.g., businessman; Solomon and Assael 1987). Yet such studies leave underspecified the role that personal inventories of product clusters have in individuals' daily lives. Consider the following issues raised by contemplating product clusters in daily life.

- How do individuals select from and combine elements of their existing product clusters? This process is not so simple when we recognize that one's inventory of products relevant to a particular aspect of self often contains more elements than one can use all at once. Consider, for example, the daily challenge of combining a set of things to wear to work. And what might precipitate surprising, unusual, and/or innovative patterning of items within a cluster or items from different clusters?
- Thinking in terms of self-relevant product clusters places a different spin on product acquisition and disposition. Such decisions become cast in a larger framework. Acquisition and disposition are influenced by the self-appropriateness of the product (cf. Kernan and Sommers 1967) and the impact that an item's addition or deletion has on the resulting cluster (cf. McCracken's [1988] Diderot principle). We know little about how individuals assess a product's self-relevance or how that changes over time. We understand even less about how consumers evaluate a product cluster's marginal utility

when a new item is added or an existing one is deleted.

Many research opportunities surround such product cluster dynamics. How, for example, does a product cluster change over time through acquisition, use, and disposition? What gave rise to the particular combination of products owned? What constrains its composition? Finally, what is the link between product clusters and self-cultivation? How do self-relevant product clusters help us become certain types of people? Do certain cluster elements serve as entry (exit) barriers for cultivating (or disposing of) a particular aspect of the self? Is it possible to create an aspect of oneself simply by owning a particular product cluster? In short, mundane consumption involves clusters of self-relevant products. This view spurs us to explore product clusters, each one of which coheres around some aspect of the self, how they arise, and their purposes in carrying on everyday activities. This leads us to the second characteristic of mundane consumption.

Activity Streams

Mundane consumption occurs within an activity stream. Ewen (1988, p. 108) observes that "life is caught between the polarities of having and doing." Yet, to suggest that everyday consumption is embedded within an activity stream recognizes that having and doing are complementary, not polar opposites. Activity streams generate, organize, and regulate consumption (Boyd and Levy 1963). Consumption, in turn, enables the activity. Cycling shoes, for example, enable one to ride a bicycle in a particular way. The combination of activity stream and product cluster forms a consumption system (Boyd and Levy 1963). Simply, we consume while doing something; but the *activity*, not the products consumed, is our primary focus.

- Casting product clusters as tools for supporting activity streams emphasizes questions like: How are goods used to perform an activity? How is product use embedded in an activity stream? Are there core vs. peripheral enabling products for an activity? If so, what happens to an activity if consumption of certain core or peripheral products is inhibited? How is self-cultivation influenced when this occurs?

Consumption-generating activity streams direct attention to consumers' procedural knowledge and expertise. Yet much consumer research is directed toward pre-having. These investigations emphasize attributes of specific brands, consequently consumer expertise is generally construed to reflect only consumers' factual knowledge of brand-attributes (e.g., Alba and Hutchinson 1987). It seems implicitly assumed that consumers know how, when, and in what combination products are used and where they can be acquired. An emphasis on consumers' procedural (i.e., how-to) knowledge, however, raises questions like: How do people acquire knowledge vis-a-vis a particular

aspect of the self (e.g., cyclist, gourmet cook, organic gardener) and the products--utilitarian as well as symbolic--that will enable this enactment? How does this learning affect who they *can* become (i.e., self-development)? What are the sources of this learning? What relative influence might friends, media, the marketplace, etc., have in cultivating one's sense of self? Additional issues arise when consumers encounter an unfamiliar (e.g., cross-cultural) realm. What are the implications of *not* knowing the relevant consumption systems--e.g., when one doesn't understand an activity stream and/or what products should/can be used to facilitate it? How does lack of such procedural knowledge inhibit one's ability to function in the context? Similarly, how are unusual or deviant consumption systems acquired and how do they affect self-cultivation? Such processes often involve other people, the third characteristic of mundane consumption.

Social Interaction

Mundane consumption frequently involves social interaction. The autonomous consumer has been consumer research's primary focus. (There is even a budding concern with solitary consumption--Goodwin 1990). Yet many self-tasks are carried out in social settings. Indeed, one purpose of self-relevant consumption is to help us get along with others. Mundane consumption thus facilitates and mediates social interaction (Douglas and Isherwood 1979). This raises questions concerning how consumers *use* consumption patterns in social interaction and, in turn, how social interaction *shapes* those consumption patterns. For example, how do certain products or product sets act as the nonverbal elements that facilitate social communication in family settings like the contemporary dinner table or consumers' exchanges with store clerks?

- The genesis (or culmination) of certain consumption patterns (including those that may be dysfunctional) often depends upon one's entry into (exit from) appropriate interpersonal networks. Parents, for example, worry that their children will become involved with the "wrong groups," which will introduce them to substance abuse. Similarly, one's active participation in a particular social-network--e.g., a sports-car club--can stabilize consumption patterns and this can make stopping or modifying consumption difficult. Participation in the sports-car club might discourage one from exploring more athletic activities. Apart from some nascent efforts (e.g., Reingen and Kernan 1986), we understand little of how acquaintance networks influence self-cultivation and accompanying self-relevant consumption patterns.
- Social-interaction can alter the course of a person's ongoing consumption system. The consumption repertoire one displays during (or in anticipation of) social interaction

emerges from the particulars of the intercourse; social exchange is a principle source of mundane consumption's dynamism. Thus, even though the topical context remains fixed, we bring a different set of behaviors to each new episode in the topical drama. ("What should I wear to work today?" "This is our third date; what does s/he expect?") How people modify their self-relevant consumption in response to interaction-embedded imperatives is scarcely addressed in the agenda of traditional consumer research, however.

- And we sometimes desire to *avoid* social interaction. Consumption patterns also are used to discourage or inhibit interaction, for purposes of privacy or self-boundary regulation (Vinsel et al. 1981). Listening to one's personal stereo, reading a book, and Nautilus workouts are common examples. Yet consumer researchers largely have ignored people's use of consumption patterns to inhibit social-interaction (Goodwin 1990 is an exception).
- Finally, this social-interaction emphasis highlights the under-explored domain of consumption that occurs *only* in groups. Board games, sporting events, college educations, and academic conferences are consumption activities for which social interaction is fundamental. Such group-consumption phenomena perhaps best exemplify our most basic premise: mundane consumption supports, but is not the conscious focus of, individuals' self-cultivation. They also challenge us, as consumer researchers, to enrich our understanding of such complex consumption. (Ward and Reingen 1990 represents an enterprising effort toward this end.)

SOME DARK-SIDE REFLECTIONS

To recognize that both buyer behavior *and* consumer behavior comprise self-relevant activities is to move beyond the ambitions of marketing managers to the sober concerns of society. If our consumption patterns fashion our identities, the consequences of mundane activities are far more profound than traditionally has been considered; both people's sense of well-being (a.k.a. mental health) and our society's values (a.k.a. the commonweal) are in play. And neither--at least according to the skeptics--is immune from jeopardy.

Self-identity has always been a problem, some uneasy confederation of the person, significant others, authority, religion and superstition. Historically, one managed this (while not preoccupied with daily sustenance) by negotiating a path between the tenants of Romanticism (love, emotion, moral values) and the Enlightenment (reason, empiricism). The postmodern era, however, complicated all this

with ever-expanding communication; one now is forced to relate to a multitude of people and institutions in a variety of ways. The result is that each of us is no longer one self, but many; this is the age of the "saturated self" (Gergen 1991). In the postmodern world the emphasis is on relationships--this *aspect* of "me" (never the generalized SELF), presented in whatever persona seems most appropriate. Gergen calls this the "pastiche personality" (perhaps the equivalent of high self-monitoring), a chameleon-like identity that is, in sum, *no* identity. Life and truth are so fragmented, relative, and ephemeral that no one has a residual sense of ME. As Ewen (1988) puts it, "... the primacy of style over substance has become the normative consciousness" (p. 2). Jack Solomon (1988) is even less sanguine, contending that we have lost our understanding of an "essential me," that there is no centering self-identity or inherent character that remains. He cites the careers of Madonna and Michael Jackson as semiotic paradigms of our society, challenging skeptics to define who or what these celebrities are.

If we *are* a society of fledgling neurotics, commercial depictions (advertising, cinema) of mundane activities and the product clusters that enable them surely bear scrutiny, although whether these shape, reinforce, or merely chronicle socially-responsible behavior may be a moot question. Apart from that sticky issue, however, it seems clear that a multidimensional self is the only tenable construal. We may long wistfully for a consummate "character," but a stable (tensile?) assemblage of self-definitions probably is requisite to contemporary life. Such a compartmentalized construal has been central to our conceptualization and is a tenet of Wicklund and Gollwitzer's (1982) provocative theory of symbolic-self completion.

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Self Examination

Preference Spaces, Interpretive Inferences, and Consumption Systems

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On the face of it, the Hirschman, Holbrook, and Levy presentations don't have much in common; they address different topics and they engage various methodologies. Yet there is an underlying theme to them. (Discussants are expected to say something to that effect.) Each one shows us a way to "examine" the self--by asking people their preferences (Holbrook), by observing the systems in which they consume (Levy), and by interpreting depictions of people's consumption behaviors (Hirschman). In each case, though the nominal focus and investigative procedure is unique, we see self reflected in and driving consumer behavior. *Ordinary* consumer behavior. Indeed, as the Kleine, Schultz-Kleine and Kernan paper notes, mundane tasks (and the consumer behaviors necessary to enact them) are self-relevant.

We have suggested that such self-relevant mundane consumption is characterized by three themes: (1) the patterned use of product sets; (2) that are embedded in and enable activity streams; (3) which typically involve social interaction. And these papers reflect those themes in abundance. For example, the notion of a set of products--although inherent in the work of Alderson, Douglas and Isherwood, Holbrook, Kernan and Sommers, McCracken, and Solomon--is given a new emphasis by these papers. We are reminded that studying products out of their constellation context can be dangerous; that elements of a set can change over time; and that (similar to Belk's [1991] recent reflection) product sets can cohere for reasons quite beyond those posited by Cartesian rationality. Similarly, that products enable activities is so intuitively plausible as to be taken for granted; yet these papers illustrate how the enabling occurs as well as the great variety of use-motivations that typically are at play. Finally, the many forms of social interaction which affect and are affected by products are given a novel twist as we see their relationship to a variety of self-reflections, -presentations, and -perceptions. These papers establish for us (again, to cite Belk) that "...while the mysteries of possessions are ineluctable, they are not ineffable" (p. 42).

While it is likely that, except for certifiable materialists (for whom having *is* being), consumer behavior is not an overarching determinant of a person's wholistic Self or "character." Inasmuch as the things we have are inseparable from what we do, however, it is not injudicious to suppose that our day-to-day behaviors *do* affect who and what we are. The influence may be indirect and variegated, but it is real.

So long as we are willing to construe the self as an amalgam of specific facets--essentially the perspective of both Gergen (1991) and Wicklund and Gollwitzer (1982)--the ordinary things that people do can be seen as perspectives--as partial portrayals--of themselves. This relationship is evident in Levy's paper (where the laundering system chosen affects the kind of homemaker presented/perceived), in

Holbrook's (where product-set preference vectors reveal aspects of the personality), and in Hirschman's (where the feckless behaviors attendant to addiction depict the struggle to enshroud deviance with normalcy). In each case, a revealing facet of the self is adduced--by the preferences people state, the products they use, or the (duplicitous) behaviors they engage. Each of those facets is a partial clue to how these actors (and others) regard themselves. That the papers "differ" widely suggests that self-relevant consumption affords us both a variety of issues to address and a veritable cafeteria of methods to examine them. Consumer researchers are not often presented with such a delectable smorgasbord.

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Patterns, Personalities, and Complex Relationships in the Effects of Self on Mundane Everyday Consumption: These are 495 of My Most and Least Favorite Things

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ABSTRACT

This paper explores the elusive relationship between Self and Mundane Everyday Consumption (M.E.C.). It suggests that early attempts to show that "Self → M.E.C." failed because concepts of "Self," "M.E.C.," and "→" were too simplistic. Accordingly, the paper extends our concept of M.E.C. to embrace enduring *patterns* of consumption preferences toward products (versus brands), objects (such as performing artists), or activities (manifested by allocations of time). It expands our view of Self to include such aspects of *personality* as visualizing-verbalizing tendency, romanticism-classicism, and intrinsic-extrinsic motivation. And it elaborates our view of the *relationships* involved (→) to represent complex mediating and moderating effects wherein personality influences the links in a causal chain from product features to purchase intentions in general and shapes the intervening role played by social impressions in particular.

INTRODUCTION

A Deep Conviction

Deep in the bones of every introspectively alert consumer researcher lies the buried conviction - implicit, inarticulate, or even inaccessible to consciousness - that one's *Self* somehow causes, influences, or shapes one's *Mundane Everyday Consumption*. Colloquially, most of us believe that "you are what you eat." In other words, at some level, we tend to feel that the "self" *is* or at least *determines* what a person "consumes."

An Elusive Butterfly

Yet, for decades, this seemingly apodictic intuition has proven amazingly resistant to empirical verification. Like an elusive butterfly, it has evaded efforts to catch it on the wing. In the earliest attempt that I can recall, Evans (1959) tried to show that Personality (measured by the Edwards Personal Preference Schedule or EPPS) explained Car Ownership (Ford versus Chevy) but found instead that the prediction was very weak and that simple-minded demographic, socioeconomic, or other "objective" variables worked just as well or better. This outcome set off a train of controversy that eventually culminated in the conventional wisdom - voiced by Kassarian (1971) - that personality variables work poorly in explaining buyer behavior.

We might view the early unsuccessful formulations in light of the following simplified representation:

Common Sense

[relationship]
SELF -----> MUNDANE
EVERYDAY
CONSUMPTION

Hypothesis

[correlation]
Personality -----> Buying

Operationalization

EPPS -----> Brand Ownership

Apparently, if the commonsense view that most of us hold somewhere deep down inside (SELF → M.E.C.) is translated into a plausible hypothesis (Personality → Buying) and tested via a simplistic operationalization (EPPS → Brand Ownership), it tends to fail. In short, if SELF is defined as a prepackaged personality measure (EPPS, GPP, MMPI, SVIB, CPI, etc.), if M.E.C. is measured as brand ownership (Ford vs. Chevy), and if the relationship investigated is a simple correlation (r or R), the "model" explains only the tiniest variance in the dependent variable. [Here, to avoid confusion, I should emphasize that my formulation views "self" as represented by "personality," whereas others have sometimes regarded "self" as represented by "consumption" (Greeno, Sommers, and Kernan 1973).]

Explanations

Subsequent thinking has suggested at least three reasons why the models just described did not work very well:

- (1) the personality variables were not specific to the buyer behavior of interest [hence, the development of psychographic measures like those advocated by Wells (1975)];
- (2) brand ownership was less relevant than more enduring commitments such as long-run brand loyalty or habitual product usage [hence, the move toward investigating clusters of consumption via "patterns of complementarity" by Bass, Pessemier, and Tigert (1969) or "behavioral life-styles" by Alpert and Gatty (1969); hence, also, the focus on product usage as opposed to brand choice recommended by Holbrook and Howard (1977) and emphasized by Holbrook and Hirschman (1982)];
- (3) the correlational relationships tested were too simplistic [hence, the development of more complex models of buyer behavior, beginning with Howard (1963) and blossoming from there toward the present state of the art].

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Extensions, Expansions, and Elaborations

I want to continue these latter streams of thought concerning "Self → M.E.C." by proposing some further extensions, expansions, and elaborations. Specifically, I want to suggest that - in seeking *relationships* between the *Self* and *Mundane Everyday Consumption* (Self → M.E.C.) -

- (1) *M.E.C.* may best be regarded as *patterns* of consumption preferences at the level of *products* (e.g., toothpaste, soap), *objects* (e.g., Miles Davis, Paul Simon), or *activities* (e.g., tennis, swimming) rather than at the level of buying specific brands (e.g., Crest vs. Colgate; CBS vs. Warner; Prince vs. Head) [here, I adopt a focus on potentially self-revealing product clusters comparable to that proposed as early as the emphasis on role-related activity patterns suggested by Kernan and Sommers (1967) and the measurement application via self-related Q-sorts of products conducted by Greeno, Sommers, and Kernan (1973)];
- (2) the *Self* may fruitfully be viewed in terms of certain important consumption-related aspects of *personality* for which measurement indices can be developed, as in the cases of visualizing-verbalizing tendency (the VV Index), romanticism-classicism (the RC Index), and intrinsic-extrinsic motivation (the IE Index) [here, I draw primarily on my own work with an important reminder that others have done extensive research on other aspects of personality such as masculinity-femininity, self-monitoring, self-esteem, innovation proneness, sensation seeking, etc.];
- (3) the *relationships* of interest may need complications to include various sorts of *mediating* and *moderating* effects [where personality influences the roles of intervening variables along a chain of links from product design to purchase intentions (Anand and Holbrook 1990; Heath 1990) and where this chain involves various aspects of social interaction of special interest to this particular ACR session (Kernan and Sommers 1967; Schultz-Kleine and Kleine 1991)].

In what follows, I shall suggest some specific examples drawn from my own work to illustrate each of these three points. However, again, I remind the reader that many others have explored similar themes on related topics. Some of this apposite research is discussed by the other participants in the present ACR session. Other examples appear in the references mentioned earlier.

(1) MUNDANE EVERYDAY CONSUMPTION AS PATTERNS OF PREFERENCES

Using Versus Choosing

Holbrook, Lehmann, and O'Shaughnessy (1986) pursued the focus on product usage (as opposed to brand choice) earlier suggested by Holbrook and Hirschman (1982). Toward this end, they examined "patterns of relationships among product categories themselves" (p. 50) in connection with questions concerning the "psychological connections among product categories" (p. 50).

Specifically, the authors studied 53 products in categories ranging from consumer nondurables (coffee, cereal) to durable goods (bicycle, camera) to services (plumber, car repair). For each category, 41 British housewives considered *why* they made their most recent purchase and indicated the salience of eight different types of reasons (habitual, picking, intrinsic, economic, technical, social, legalistic, and adaptive) on a five-point numerical scale from "not considered at all" (1) to "sole basis for selecting" (5). Mean ratings were correlated among products across reasons; the correlations were converted to distance measures; and these distances were submitted to metric multidimensional scaling to obtain a product space in two dimensions with a correlation between input and output interpoint distances of 0.91.

The vertical dimension of this spatial representation appeared to discriminate between products used for their utilitarian properties (headache remedies, car repairs) versus those used for aesthetic or social reasons (hats, dress shirts). The horizontal axis posed more difficulties of interpretation but seemed to reflect the difference between repetitive commitments (pet food, gas, coffee) and more unique purchasing situations (calculator, bicycle, car). [Unfortunately, space does not permit the inclusion of this or the other visual representations discussed in the present review. For further details, please see the original sources cited.]

This representation goes part way toward the focus on patterns of product consumption mentioned earlier in that it positions products nearer together or farther apart according to the sorts of reasons that determine their acquisition and usage. However, in line with the purposes of the present inquiry, a more interesting question concerns the ways that products cluster together in a preference space to reveal patterns of product complementarity.

Patterns of Complementarity in a Preference Space

In connection with the phenomenon of product complementarity, several authors have suggested that the meaning or value of a consumption item may depend on the nature of the other goods and services jointly consumed with it (Bass, Pessemier, and Tigert 1969). Such "item collections" (Green and Devita 1974), "combinations" (McCracken 1988), "constellations" (Solomon 1988), "configuralities" (Holbrook and Moore 1981), "complementarities" (Holbrook and Dixon 1985), or "ensembles" (Bell,

Holbrook, and Solomon 1991) consist of products that group together into patterns because they tend to be liked (disliked) and consumed (avoided) jointly by the same people. Hence, by measuring relative preferences across a range of objects, correlating these preferences among products and across respondents, and submitting these inter-object correlations to some sort of MDS procedure, one can form preference spaces based on what Holbrook and Dixon (1985) call "complementarity in aggregate patterns of revealed preference" (p. 111).

Three examples at hand concern the patterning of preferences among various objects from the world of entertainment in general and jazz performance in particular. Thus, Holbrook (1982) asked 180 respondents to rate their perceived likelihood of buying new recordings by each of 180 jazz artists on a 9-point numerical scale from "not at all likely to buy" (1) to "extremely likely to buy" (9). Using a reduced set of 73 musicians (those with above-average purchase intentions), an MDS analysis of the correlations among artists across respondents produced a two-dimensional solution with a correlational fit between input and output distances of 0.75. Here, the horizontal axis appeared to represent commercialism, differentiating between those musicians with the closest ties to the purist jazz tradition (Gil Evans, Roland Hanna, Max Roach, Thelonious Monk) and those who have made the largest concessions to popular taste (George Benson, Grover Washington, Ramsey Lewis, Herbie Mann). Meanwhile, the vertical axis seemed to represent contemporaneity, with the more modern players at the bottom (Wayne Shorter, Joe Zawinul, Keith Jarrett, Weather Report) and those with more mainstream styles at the top (Count Basie, The Jones-Lewis Big Band, Zoot Sims, Oscar Peterson). One reasonable inference from such a preference space is that the neighboring musicians tend to cluster together in listeners' patterns of consumption. Some would own record collections featuring Shorter and Zawinul (both members of Weather Report); others would prefer listening to Sims and Peterson (both under contract with Pablo at the time of the study).

Closely comparable results appeared in research reported by Holbrook and Holloway (1984) wherein 327 respondents gave preference ratings for 59 jazz musicians on a 9-point numerical scale from "not at all enjoyable" (1) to "extremely enjoyable" (9). Multidimensionally scaled correlations produced a two-dimensional preference space with a correlational fit between input and output distances of 0.79. Again, the horizontal axis appeared to represent commerciality (e.g., Clifford Brown and Lester Young among the purists versus Grover Washington and Bob James among the sell-outs). And, again, the vertical axis could be interpreted as a continuum of contemporaneity from the more modern (Marion Brown, Sun Ra) to the more mainstream (Ray Charles, Louis Armstrong). Further, this representation of preference patterns suggests that certain artists tend to group together in the consumption styles of different consumers. Someone who listens to Hampton Hawes, Jim Hall, Bill Evans, Lee Konitz, and Art Pepper

probably does not devote much time or attention to Donald Byrd, Freddie Hubbard, Herbie Hancock, or Al Jarreau (and vice versa).

In a third study of jazz preferences, Holbrook and Dixon (1985) used essentially the same technique one more time with preference ratings of 50 jazz musicians collected from a sample of 220 respondents on a 7-point numerical scale from "do not enjoy at all" (1) to "enjoy very much" (7). Multidimensionally scaled correlations produced a two-dimensional preference space with a fit of 0.66. Again, one dimension appeared to represent commerciality - namely, the vertical axis with purists at the top (Jaco Pastorius, Wayne Shorter, Keith Jarrett) and sell-outs at the bottom (George Benson, Grover Washington, Ramsey Lewis). However, because all artists came from the set of currently active modern performers, the horizontal axis appeared to capture a distinction somewhat different from that observed earlier - namely, a continuum of familiarity based on a contrast between the better known jazz stars (Billy Cobham, George Duke, Herbie Hancock, Hubert Laws, Ramsey Lewis) as opposed to the more obscure artists (Cedar Walton, The Heath Brothers, Helen Humes, Benny Golson, Woody Shaw).

Patterns of Time Allocation

A phenomenon closely related to patterns of preferences among objects concerns patterns of time allocation among various sorts of activities. In this connection, Holbrook (1980) used multidimensionally scaled correlations to reanalyze some data on leisure activities originally reported by Duncan (1978). Specifically, Holbrook used summed cross-products from Duncan's factor-pattern coefficients to approximate the original correlations among the 25 leisure activities loaded highest on Duncan's five factors. MDS produced a two-dimensional space with a correlational fit between input and output distances of 0.77. Here, the horizontal axis appeared to represent a contrast between solitary activities (gardening, walking, reading) and those of a social nature (movies, volleyball, dancing). Meanwhile, the vertical dimension seemed to indicate a distinction between indoor activities (shopping, sitting, stereo) and those performed outdoors (hunting, fishing, camping). Moreover, the activities appeared to form meaningful patterns or clusters in the MDS space. For example, certain "woodsmen" tended to engage in fishing, hunting, and camping, whereas other "socializers" tended to pursue dating, dancing, and movies.

Holbrook and Lehmann (1981) undertook a comparable approach to assessing patterns of leisure activities. Following Bass, Pessemier, and Tigert (1969), they investigated complementarity among activities in the allocation of discretionary time by analyzing data from a Market Facts panel of 3,288 respondents who had indicated their participation rates in 88 time-consuming activities. An MDS analysis of distances based on partial correlations among the activities produced a two-dimensional solution with a fit of 0.54. Again, one dimension seemed to represent the distinction between indoor activities (crossword,

book, dinner) and those performed outdoors (swim, camp, hike). By contrast with the earlier findings, however, the solitary-social dimension was replaced by an axis that appeared to differentiate between essentially low-brow activities (cards, drinking, TV sports, bowling) and more high-brow pursuits (library, museum, classical concert, lecture). Further, activities high in *a priori* complementarity tended to occupy neighboring positions in the spatial representation. For example, camping, boating, hunting, swimming, and skiing clustered in one corner of the space, as did club, church, project, and volunteer in the opposite corner.

Limitations

The preceding analyses shed light on the *patterns* wherein products, objects, or activities group together into complementary clusters based on their tendencies to be thought about, preferred, or performed together or in similar ways by the same people. Hence, the various MDS spaces described in this section address the first of the concerns raised earlier - namely, that pertaining to the *patterns* that occur in *mundane everyday consumption*. However, questions remain concerning how these patterns are related, if at all, to underlying *personality* variables or to other aspects of the *self*.

(2) THE SELF AS PERSONALITY

Premonitions

Premonitions concerning the sort of approach that I would advocate appeared in the aforementioned paper by Holbrook and Holloway (1984) in which vectors were positioned in the MDS space for jazz musicians to indicate the differences in relative preferences between members of various demographic segments (e.g., Blacks vs. whites) and socioeconomic categories (e.g., less- vs. better-educated). The method used here regresses segment-specific relative preferences against the spatial coordinates of objects on the axes that underlie the preference space and plots a vector that passes through a point given by the coefficients of the axes in the regression equation (Carroll 1972). Thus, those objects whose perpendicular projections lie farther toward the positive end of this vector tend to be preferred relatively more strongly by members of the relevant consumer group. For example, the cluster of relative preferences for such jazz musicians as Hawes, Hall, Evans, Konitz, and Pepper (described earlier) is closely associated with being white ($R = 0.65$) and better-educated ($R = 0.73$). From here, it is only a short step to inquiring whether similar patterns of relative preferences appear for respondents differing in various psychographic aspects of their personality.

Psychographics and Preferences for Jazz Artists

The aforementioned study by Holbrook (1982) placed vectors in the product space for jazz artists to represent the preferences of groups defined by various psychographic items (each of which was used to split the overall sample of respondents into two

subsamples of those scoring above and below the mean, respectively). These psychographically anchored preference vectors provide hints on what sorts of personality types tended to prefer which clusters of jazz performers. For example, the purist musicians mentioned earlier (Evans, Hanna, Roach, Monk) tended to appeal to those who agreed with such statements as "I regard myself as a serious student of jazz" ($r = 0.43$), "I read music magazines to keep abreast of what's happening" ($r = 0.41$), and "Compared to most people, I am a little bit crazy in my love for jazz" ($r = 0.36$). By contrast, the more commercial musicians (Benson, Washington, Lewis, Mann) found their niche among those who agreed with "I like music you can dance to" ($r = 0.32$), "I frequently spend the evening dancing at a disco" ($r = 0.36$), and "To have music everywhere I go, I often carry a portable radio around with me" ($r = 0.46$). In sum, though they cannot be regarded as general measures of personality, these psychographic descriptors suggest some key differences between the self-descriptions of those who like the more versus less commercial jazz artists.

Gender, Visualizing-Verbalizing Tendency, and Preferences for Fashion Designs

In a study intended to explore the effects of cue configuralities among items of clothing worn together in one fashion ensemble, Holbrook (1986) collected measures from 64 respondents (42 males and 22 females) on a four-item index of affect toward 32 factorially designed outfits (composed of different shirts, ties, jackets, and pants). He used canonical correlation analysis to form a preference space for the fashion outfits and put preference vectors into this space to represent the affective responses of males versus females who scored high versus low on a 20-item index of visualizing-verbalizing tendency (the VV Index) originally developed by Holbrook, Chestnut, Oliva, and Greenleaf (1984). The results indicated that - by contrast with men (for whom visualizing-verbalizing tendencies exerted little influence on preference patterns) - the high-VV women tended to like "simple combinations with plain jackets and (at most) one isolated or two nonadjacent set(s) of stripes," whereas the low-VV women tended to prefer "plaid jackets, but only as long as these are combined with no more than one striped feature" (p. 345). Hence, this study indicates the potential for preference spaces with personality-based vectors to illuminate relationships between patterns of mundane everyday consumption and the self.

(3) RELATIONSHIPS OF INCREASED COMPLEXITY: FROM SIMPLE CORRELATIONS TO MODERATING AND MEDIATING EFFECTS

Thus far, the relationships between patterns of preference and aspects of personality have appeared in the form of straightforward simple measures of correlational association. Further issues concern the complications that arise when we examine the possible moderating and mediating effects wherein personality can intervene in the chain of effects

between stimulus properties and preferences or purchase intentions. In describing such models, I shall briefly mention four studies with escalating levels of complexity.

Romanticism-Classicism and Travel Preferences

At the simplest level of model building, one might inquire whether a personality variable exerts a moderating effect on the importance weights attached to different product features. In this connection, Holbrook and Olney (1991) used a method analogous to componential segmentation (Green and DeSarbo 1979) to test whether an index of romanticism-classicism (the RC Index) would account for shifts in the utilities attached to various features of vacation trips (pleasure, risk, viewing, warmth, and luxury). A sample of 115 student subjects evaluated 32 factorially designed stimuli based on all possible combinations of the five two-level travel features. Consistent with the authors' expectations, the results indicated gender-related differences in part worths - with women (versus men) displaying significantly more positive evaluative weights for pleasure ($p = 0.02$), warmth ($p = 0.01$), and luxury ($p < 0.0001$) and a significantly more negative evaluative weight for riskiness ($p = 0.001$). Further, the results showed a significant moderating role of romanticism-classicism in increasing the favorability of responses to riskiness ($p < 0.0001$) and warmth ($p = 0.0015$). Thus, it appears that romanticism-classicism does moderate the effects of certain travel features (risk and warmth) on preferences toward various vacation opportunities.

Romanticism-Classicism and Music Preferences

Pursuing a somewhat more complex modeling approach, Holbrook and Corfman (1985) manipulated various aspects of a music-listening task (including the design of the music itself) on a number of dimensions and studied the effects of these task differences on preferences (as measured by a four-item index of affect) as well as on various intervening value judgments (concerning beauty, quality, convenience, and fun). As tested on a sample of 21 student subjects across 32 listening experiences ($N = 32 \times 21 = 672$), the intervening value judgments (beauty, quality, and fun) and their various interactions with gender and romanticism-classicism provided a fairly strong explanation of preference ($R = 0.88$, $p < 0.0001$). Here, as expected, those higher in romanticism (versus classicism) showed a significantly more positive contribution of beauty to preference ($p = 0.002$).

Visualizing-Verbalizing Tendencies and Emotional Responses to Video Games

Using a path-analytic approach comparable to that employed in the study just described, Holbrook, Chestnut, Oliva, and Greenleaf (1984) extended the previous focus to the domain of leisure activities (Unger and Kernan 1983) by investigating the emotional responses of 60 student subjects to the experience of playing a video game (in either a verbal or visual format). Measures of emotional responses

included a global assessment of negative-positive feeling borrowed from Byrne (1971) and the six-item indices of pleasure, arousal, and dominance developed by Mehrabian and Russell (1974). The key personality variable of interest concerned an index of visualizing-verbalizing tendency (the VV Index). The results showed significant VV X game interactions in explaining three of the emotional measures (but not arousal). Specifically, for visual (versus verbal) games, visualizing tendency contributed significantly more positively to feeling ($p < 0.10$), pleasure ($p < 0.05$), and dominance ($p < 0.05$). This suggests that personality (visualizing-verbalizing tendency) plays a complex role in moderating the enjoyment of playful consumption experiences (video games).

Intrinsic-Extrinsic Motivation, Self-Monitoring, Social Impression, and General Liking

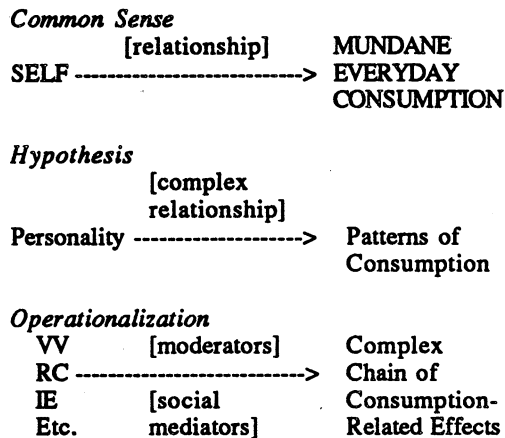
Finally, Bell, Holbrook, and Solomon (1991) have recently reported results for a still more complex model designed to link personality, esthetic, social, and attitudinal variables via various moderating and mediating effects. With particular relevance to the present discussion, this model proposes that personality variables determine one's ideal impression which, in turn, moderates the effect of product-related person perceptions on the favorability of social impressions that contribute to general liking. Specifically, evaluations of 32 factorially designed furniture combinations by 227 student subjects suggested that intrinsic motivation (Deci 1975) and self-monitoring (Snyder and Gangestad 1986) contributed positively to desired flexibility as part of one's ideal impression ($p < 0.0001$ and $p = 0.04$, respectively), that this ideal impression exerted a positive moderating effect on the contribution by the perceived flexibility of the furniture's person perception to explaining the favorability of its social impression ($p = 0.002$), and that social impression ($p < 0.0001$) and esthetic response ($p < 0.0001$) combined to determine general liking ($R = 0.88$). Thus, these results support a complex model wherein personality determines the ideal impression that one wishes to project which, in turn, moderates the effect that perceptions concerning the sort of person who would own the product exert on the favorability of its social impression and wherein this social impression works together with esthetic response to mediate the flow of effects from product features to general liking.

CONCLUSIONS

It should appear clear from the verbal description just offered that models designed to reveal the effects of personality on patterns of product preferences have become fairly complex and, indeed, that such complications must be included to address the issues of theoretical interest - namely, the role of Self (personality) in shaping Mundane Everyday Consumption (patterns of product usage, object preferences, and related activities) via the intervening role of Social Impressions.

If we return, for purposes of comparison, to the earlier oversimplified formulation that did *not* work, I

believe we are now in a position to construct an extended, expanded, and elaborated schema that might work - or, at least, that might work *better* than the discredited simplistic view. Specifically, the improved schema would be structured as follows:



This extended, expanded, elaborated representation only begins to suggest the host of questions that remain unanswered and deserve exploration in future studies. Perhaps the present brief overview has offered some grounds for hoping that such further investigations may prove worthwhile.

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Mundane Addiction: The Cinematic Depiction of Cocaine Consumption

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ABSTRACT

Using three motion pictures depicting cocaine addiction during the 1980's (i.e., *Bright Lights, Big City*; *Less Than Zero*; *Clean and Sober*) five themes are identified that appear to be common, or mundane, aspects of the narratives. These themes are (1) self-deception, (2) deception of others, (3) drug use in response to anxiety, stress, and failure, (4) multi-drug use and desperation to use, and (5) continuity of use and physical deterioration. Mundane Addiction:

INTRODUCTION

Over the past decade consumer researchers have become increasingly aware of compulsive and impulsive purchasing (Rook and Hoch 1985; Rook 1987; Faber, O'Guinn and Krych 1987; O'Guinn and Faber 1989; Hoch and Loewenstein 1991). Closely related to these activities are drug addiction and alcoholism (Peele 1985), which have recently also come to the interest of consumer researchers (Hirschman 1991; Hirschman 1992 a,b). The majority of these studies are based upon phenomenological accounts of addicted and compulsive consumers and have provided several insights into the lived-world of compulsive-addictive consumption.

However, there is another vantage point from which it may be quite constructive to examine addictive behavior -- that is fictional depictions presented in motion pictures. Denzin (1991), for example has developed a compelling analysis of alcoholism as a cinematic genre in which he describes how cultural conceptions of this form of addictive behavior have been shaped by its portrayal in films over an eighty year period. "In the alcoholism film Hollywood would focus on the problem drinker and turn his or her problems with alcohol into occasions for moralistic, didactic discussions of alcoholism and its destructive effects on the person and society. Films such as those analyzed (here) serve as distorted mirrors or fractured reflections of the American concern for its 'alcoholism' problem (Denzin 1991, p. xiii)." Denzin's findings are based on an interpretive analysis of thirty-seven motion pictures spanning an eighty year time period.

The present paper is not nearly as comprehensive and detailed as Denzin's work. Instead, I will focus upon three films from the late 1980's which depict the effects of cocaine addiction; these films are 'Bright Lights, Big City' (1988), 'Less Than Zero' (1987) and 'Clean and Sober' (1988). As in Denzin's sample, these films were chosen because they were major motion pictures (i.e., were released by major studios), experienced wide-spread distribution and achieved at least moderate commercial success. They thus serve as impactful semiotic vehicles for encoding and communicating our cultural values regarding drug addiction.

As will be shown, these films are also instructive to consider as a set because they depict three different outcomes for their protagonists. In

'Bright Lights, Big City', the protagonist, Jamie Conway, overcomes his cocaine addiction through the exercise of personal choice and will power. In 'Less Than Zero', the protagonist, Julian Wells, takes an opposite path. After struggling to overcome and control his addiction to cocaine, he dies. In the third film, 'Clean and Sober', the protagonist, Daryl Poynter, enters a drug rehabilitation program denying he is a cocaine addict. Through the program, he ultimately comes to acknowledge his addiction and -- with group support -- is able to control it.

These three films, then, tell dialectically different stories about addiction and suggest that greatly disparate outcomes are possible for the cocaine addict. However, as I shall show, they also put forward remarkably similar portrayals of what it is like to be an addict. Brief synopses of each film are now presented¹:

Bright Lights, Big City

Jamie Conway (Michael J. Fox) is a clean-cut, aspiring, young writer working for an elite magazine in New York City. Originally from the Midwest, Jamie has taken up with a fast crowd. He frequently stays out all night dancing at discotheques; he drinks liquor heavily and uses cocaine. While the actual origins of Jamie's addiction are unclear, the narrative suggests that they are linked to the death of his mother from cancer, which occurred a year earlier, and his attractive wife, Amanda's (Phoebe Cates), desertion of their marriage for a modeling career.

The narrative covers a three or four day time period in Jamie's life, during which he is fired from his job due to sloppy performance, is pursued by his brother, Michael, to attend their late mother's memorial service, re-encounters Amanda at a fashion show where he is thrown out for drunkenness, and meets the virtuous, sensitive Vickie, who becomes his new love. The narrative suggests that after "hitting bottom" in his professional and personal life due to his addictions Jamie resolves his emotional conflicts over his mother and wife, abandons drugs (symbolized in the film by his trading his dark sunglasses for a fresh bread roll), and vows to begin life anew. The film ends with Jamie sitting on a pier overlooking the ocean early on a Sunday morning. He tells himself, "You're gonna have to go slowly. Have to learn everything all over again".

Less Than Zero

The narrative opens by showing three affluent friends at their high school graduation in Los Angeles. Clay (Andrew McCarthy) goes east to college, while his best friend, Julian (Robert Downey, Jr.), and Clay's girlfriend, Blair (Jamie Gertz), remain behind in California. At Thanksgiving, Clay returns home to

¹Extensive synopses are available from the author. All three films are available on videocassette.

discover that Julian and Blair have become lovers. He is angry and hurt. Prior to Christmas break, Blair calls Clay and asks him to come home to help her with Julian, who has developed an addiction to cocaine. Upon Clay's return to Los Angeles, the narrative provides a glimpse of the lifestyle in which the three were raised: incredible wealth and social privilege, coupled with broken homes and selfish, disinterested parents. (For example, Clay has no one to meet him at the airport, so he takes a cab home; Blair's father does not even come out of his bedroom to accept her Christmas present.)

Blair confides to Clay that Julian's attempt to become a record producer failed. Julian, despondent, then turned increasingly to cocaine and now owes his dealer \$50,000. Julian spends his nights dancing high at discos and his days 'coming down' from drugs at the beach, public parks, or Blair's apartment. Julian's father has forbidden him to return home because of his repeated, failed attempts at rehabilitation and his continued theft of money from the family for drugs.

Toward the end of the narrative several significant events occur: Julian is forced by his drug dealer to become a male prostitute and finally admits to Clay that he is an addict and owes a great deal of money. While Clay is attempting to help him, Julian steals jewelry from Clay's house. Clay and Blair later find Julian at Blair's house and help him through withdrawal. Julian promises them to stay off of drugs. Julian goes to his father and asks to be taken back. His father agrees. Julian then goes to see his drug dealer in Palm Springs to square away his debts. However, the dealer lures Julian back into homosexual prostitution and addiction. Blair and Clay arrive at the dealer's house and rescue Julian. While they are driving back to Los Angeles, Julian dies. After Julian's funeral, Blair -- who has given up her own cocaine habit -- agrees to return to college with Clay.

Clean and Sober

An affluent, young, commercial real estate broker, Daryl Poynter (Michael Keaton), awakens after a night of drinking and snorting cocaine to find his date has suffered a heart attack (due to cocaine use) in his bed. Daryl disposes of the drugs and calls the police. After they accuse him of cocaine use, he first tries to fly to Canada, but cannot because his credit card has been revoked. He then goes to a colleague's house where he drinks beer and asks to hide out. The colleague refuses. In desperation to elude the police, Daryl checks himself into a rehabilitation clinic, where his presence will be kept confidential.

Despite going through withdrawal, Daryl refuses to admit he is an addict and continues to try to obtain cocaine from outside sources. While at the clinic, Daryl falls in love with another recovering addict, a young, blue-collar woman named Charlie. Upon their release from the program, Daryl attempts to get Charlie to leave her addicted, petty thief husband, Lenny, and come live with him.

While in the clinic, Daryl reluctantly joins AA/NA and gets a sponsor named Richard. Richard

helps Daryl reconstruct his life away from the use of drugs and alcohol.

Daryl is fired from his job for having embezzled money to buy drugs when he was an addict. Daryl discovers Charlie is still using cocaine and has her flush it down the toilet. Charlie finds she cannot leave Lenny because he "needs" her more than Daryl does. Daryl finally lands a job and calls Charlie to tell her. She agrees to come see him. Driving over, Charlie snorts cocaine, has a car wreck and is killed. Richard comforts Daryl, telling him he could not have prevented Charlie's death.

The narrative closes with Daryl speaking at an AA/NA meeting. He tells the members that he entered the program merely to escape the police, but now has come to realize that he is an addict and must continue to recover.

THEMATIC COMPARISON: THE MUNDANE ASPECTS OF ADDICTION

These three films differ in structure, outcome, tone and texture and yet there are some striking commonalities across all three narratives that reveal our cultural conceptions of cocaine addiction. These commonalities constitute the everyday -- or mundane -- aspects of addiction, and it is to a consideration of them that we now turn.

Lifestyle. Cocaine consumption during the time period depicted in these films (e.g., late 1970's-early 1980's) was associated with a glamorous, sensual lifestyle (Hirschman 1992a); cocaine was culturally viewed as something the affluent did at "swinging" parties, at discotheques, and prior to sex (Hirschman 1992a). The narratives depict cocaine use in ways highly consistent with this cultural ideology. All three protagonists are well-educated, affluent professionals. All are young and single, and in all three films the use of cocaine is linked to sociability and sexuality.

In addition to these lifestyle commonalities, however, the three narratives tell us much more about the phenomenology of drug addiction, *per se*, including the texture of the daily life of an addict.

Self-Deception. One of the most commonly shared traits among addicts is self-deception (see Johnson 1980). Addicts typically construct elaborate systems of *denial*, which act to blind them the negative effects that their drug/alcohol consumption has on their personal and professional lives. For example, Jamie Conway, the central character in *Bright Lights, Big City*, is engulfed in denial. Through his cocaine and alcohol use he has avoided dealing with the two central losses in his life -- the death of his mother and the divorce from his wife. Instead of confronting and resolving his emotions, he runs away from them through frenetic activity at all-night discotheques and mind-numbing doses of stimulants and depressants.

Jamie's denial extends to his professional life as well. His editorial work has become sloppy and haphazard; he has all but abandoned attempts to complete a novel. Yet Jamie does not seem to notice these deficiencies. His life has become reduced to an existence of locating drugs and getting through the

days and nights of his life with as little introspection as possible.

The storyline of *Less Than Zero* revolves around life-after-high school for three friends. Clay has gone to college and no longer consumes drugs; while Julian and Blair have remained in Los Angeles, where both have become dependent on cocaine. Julian's addiction is by far the more serious. He has amassed a \$50,000 debt to his dealer, Rip, which signals not only the depth of his denial, but also of his addiction. According to the film, Julian "conned his way through" rehabilitation, meaning that he refused to take his addiction, or treatment for it, seriously. Despite a series of career failures and alienation from his family, Julian denies that he has a drug "problem". He continues to make elaborate plans to resurrect his life by opening up a night club. When Clay finds him sleeping on park benches and on beaches, Julian contends that it is because he has "trouble at home", rather than a cocaine dependency. Ultimately, Julian's self-deception leads to his death. He returns to see Rip, ostensibly to tell him that he is getting straight, but instead becomes (easily) lured back into cocaine use. His last consumption binge proves to be fatal.

Daryl Poynter in *Clean and Sober* has embezzled \$90,000 from his firm to buy cocaine, found a date near death from a drug overdose in his bed, drinks beer for breakfast, and *still* does not recognize that he is an addict. Craig, his rehabilitation clinic counselor, tells Daryl, "You've been straight for twelve whole days. That's how we do it... a minute at a time, a day at a time. *But you gotta know you got a problem*". Daryl does not.

Daryl's denial of his drug addiction continues despite his undergoing withdrawal, the admonitions of his counselors, and the questioning of his AA sponsor: "Daryl, are you an addict?" "Fuck you!" replies Daryl. Only slowly, gradually does Daryl come to recognize -- and accept -- his status as an addict. Thirty days out of rehab, after the deaths of his date and Charlie, and the loss of his job, Daryl stands in front of an NA/AA group and says: "I've been to a funeral, 9,000 job interviews and I'm \$52,000 in debt. And now I've got this... startling belief that I'm an addict".

Denial dies a slow and painful death in the addict's consciousness. But with the death of denial comes the birth of recovery. Daryl and Jamie both broke through their own patterns of denial, recognized themselves as addicts and, the narratives imply, lived. Julian never fully overcame his denial and died. Thus, these three films inform us that one must be able to discern the destructiveness of addiction to one's life before being capable of fully abandoning one's dependence upon it.

Deception of Others. Addicts typically engage in elaborate schemes to deceive others concerning their drug use (see Johnson 1980). Most commonly those whom the addict feels s/he must deceive are friends, family and coworkers. In *Bright Lights, Big City*, Jamie Conway engages in these mundane acts of deception most markedly with his coworkers and brother. Although he is chronically tardy for work and

often he has the red eyes, swollen nose and headaches associated with cocaine use, Jamie denies to his colleagues that he is using drugs. Ultimately he is fired for the poor quality of his work, but still refuses to associate it with his drug and alcohol consumption. Jamie also tries to avoid contacting his brother, fearing his addiction will be discovered.

Julian, in *Less Than Zero*, also acts in a manipulative and deceptive fashion on several occasions. In one instance, he asks his uncle for \$15,000 to open a nightclub, intending instead to use the money to repay his drug debts. In another instance, he breaks into his family's home and attempts to steal some audio equipment. Later, in desperation, he pleads with his friend, Clay, to help him get \$50,000. While Clay is attempting to obtain the money for him, Julian enters Clay's house and steals his mother's jewelry. As Julian's father tells him in one scene: "Trust was the first thing you ruined".

Daryl Poynter of *Clean and Sober*, like Jamie and Julian, has attempted to deceive many people in order to disguise his addiction. At the outset of the narrative he lies to a friend and coworker, Martin, about the escrow money he has stolen. He next lies to the police, telling them he does not use drugs. He lies to the personnel at the rehabilitation clinic, telling them he is not hiding from the police. Daryl attempts to manipulate Martin into bringing him cocaine in the rehabilitation clinic. When that fails, he calls his parents, tells them he is in a "financial bind" and asks them to mortgage their house and send him the money. When explaining the missing escrow account to his superiors at work, Daryl initially tries to blame a secretary for depositing the money in his checking account by error. Finally, he admits to them his drug dependency and recent treatment -- a signal that he is finally beginning to 'get honest' with himself and others.

As these three films suggest, active drug addicts are not truthful people. They will lie, cheat, steal and deceive to maintain their addictions. Family, friends and colleagues -- rather than being off-limits for this treatment -- are often the most likely to experience it.

Drug Use in Response to Anxiety, Stress, Failure. Addiction is often stimulated by the use of drugs / alcohol as a form of self-medication in response to anxiety, stress and failure (Brister and Brister 1987). The narrative of *Bright Lights, Big City* strongly suggests that Jamie's current dependence upon cocaine and liquor is his attempt to escape very painful emotions tied to his mother's death and the breakup of his marriage. Further, the film suggests that when facing a stressful encounter, Jamie also 'fortifies' himself with drugs and alcohol. For example, before encountering his ex-wife at a fashion show, Jamie gulps down two double vodkas. Upon encountering her again at a party, Jamie snorts cocaine. And when Jamie's brother tells him he must return home to attend his mother's memorial service, he responds by snorting cocaine and leaving for a party.

In *Less Than Zero*, Blair tells Clay that Julian's cocaine addiction is directly attributable to his failure

as a record producer: "He never ever failed before. He started getting high. He had a fight with his father. Mr. Wells threw him out". Julian's life is now one of constant stress and anxiety. He is estranged from his family, unable to function professionally, and deeply in debt. To cope, Julian consumes as much cocaine as he is able to obtain, getting quite sick when his supply is depleted. The 'medicine' that once enabled him to escape his problems, now has become the central source of his misery.

Unlike *Bright Lights, Big City* and *Less Than Zero*, the narrative of *Clean and Sober* provides us with few clues as to the origins of Daryl's drug and alcohol dependency. Once his addictions are established, however, he frequently attempts to turn to them in times of stress and anxiety. For example, the morning the stricken date is found in his bed, Daryl flushes the cocaine down the toilet to evade the police. However, as soon as he arrives at a friend's house, he gulps down a beer. Unable to flee the country, Daryl drinks liquor and smokes cigarettes. Thus we learn that these are his typical ways of responding to stressful events.

Like most addicts, Jamie, Julian and Daryl began their drug and alcohol use as a way of medicating themselves past painful emotions. However, as Brister and Brister (1987) observe, they are now trapped in a vicious circle in which the pain of withdrawal from drug use stimulates sufficient impetus for them to reinitiate their consumption.

Multi-drug Use / Desperation to Use. Another mundane aspect of addiction is that it often extends to include several substances or activities (Hirschman 1992b). In *Bright Lights, Big City*, Jamie Conway is presented as *cross-addicted* to cocaine and alcohol. This is a common "upper" (i.e., stimulant) / "downer" (i.e., depressant) pattern. In order to give himself energy for work or partying, Jamie snorts cocaine. In order to ease his "crash" from cocaine or to relax when he experiences anxiety, Jamie drinks vodka. As is typical of addicts, when these drugs of-choice are unavailable, Jamie will readily consume others. For example, when having dinner with his coworker, Meghan, Jamie gulps down wine and steals some Valium he finds in her bathroom. When his drug / alcohol supply is depleted, Jamie becomes desperate to obtain more. At one point he leaves work in midday to buy cocaine in a public park.

Like Jamie, Julian in *Less Than Zero*, exhibits multiple chemical dependencies. His drug-of-choice is free-base cocaine, but the narrative depicts him also smoking cigarettes and drinking liquor. In several scenes, Julian's drug dependence is depicted in desperate terms. He begs cocaine from Rip, even though he is deeply in debt and ultimately is forced into homosexual prostitution. In the final scenes of the film, Julian -- although vowing to have given up his drug habit -- is easily brought back into both his addiction and acts of prostitution simply by being offered a free-base pipe.

As with Jamie and Julian, Daryl exhibits multi-drug addiction. He is dependent upon cocaine, alcohol and cigarettes. By the end of the film, it is suggested that he has abandoned use of cocaine and alcohol, but

his status regarding cigarettes is left ambiguous². Daryl's desperation to use these substances is suggested vividly by two activities in the film. First, in the rehabilitation program and cut off from his drug supply, Daryl places repeated calls to his dealer attempting to obtain cocaine. In another segment of the film, he ransacks his office, searching desperately for drugs. When he can find none, he calls his parents, manipulating them for money to buy cocaine.

The addicts portrayed in these three films depict the extremes to which people will go in order to obtain more of the substances upon which they have become dependent. As these narratives illustrate, addicts lead lives of frantic -- not quiet -- desperation.

Continuity of Use and Physical Deterioration. Perhaps the most mundane aspect of addiction is the regularity with which it governs the addict's everyday life. All other personal and professional activities become subordinated to the consumption of the drug. At the extreme, the addicted consumer's life becomes consumed by the addiction. In *Bright Lights, Big City*, Jamie is depicted as under the influence of cocaine and / or alcohol in virtually every scene. He snorts cocaine in the morning to cope with his job, drinks at lunch and at dinner to cope with stress, drinks and snorts to have a good time on a date and so on. His personal functioning is depicted as a function of drug and liquor consumption. The unbroken continuity of Jamie's chemical dependencies take a dramatic toll on his physical appearance. He struggles to maintain his Preppie appearance, but his clothes become increasingly disheveled, his hair unkempt, his complexion unhealthy, his nose bloody.

Julian, in *Less Than Zero*, has reached an ever more disintegrated physical state due to his continuous cocaine use. Julian is shown becoming increasingly disheveled and emotionally distraught; his clothing deteriorates over the course of the film from L.A. chic to dirty and unkempt. His behavior declines from nightclubbing to acts of sexual perversion. Even more than Jamie, Julian's face displays the physical ravages of heavy addiction: his eyes are swollen and bloodshot; there are open sores around his mouth from frequent free-basing, his hair is dirty and his face remains unshaven for days.

As with Jamie and Julian, Daryl is depicted as continuously concerned with maintaining his addiction. He snorts cocaine and drinks alcohol at the outset of the day. When his cocaine supply is disrupted, he continues to drink and smoke cigarettes. Drug use is shown to be the constant in Daryl's life. He also exhibits a physical deterioration due to his chemical dependencies. The morning he checks into the rehabilitation clinic he is disheveled and unshaven. His Yuppie-style clothes are rumpled and dirty; his speech is too rapid and nervous. As yet unrecognized by Daryl, his life has become unmanageable.

²AA/NA permit both cigarette smoking and caffeine consumption.

DISCUSSION

As with impulsive and compulsive purchasing, drug addiction and alcoholism can disrupt and even destroy consumers' lives. The present paper has examined addiction through a novel venue -- motion pictures. Motion pictures which focus upon addiction can serve as instructive, semiotically-rich texts for communicating cultural knowledge about addiction.

By examining the behaviors of addicted consumers as depicted in cinematic narratives, we can learn about commonalities culturally perceived to characterize drug/alcohol addiction. The three films used in the present study, i.e., *Bright Lights, Big City*, *Less Than Zero*, and *Clean and Sober* are from the same time period (1987-1988) and document cultural beliefs surrounding cocaine consumption in the early-to-mid 1980's. Beyond distinctive lifestyle patterns, e.g., young, affluent, professional users; social/leisure usage occasions, these films suggest five common, or *mundane*, themes which inform our societal conception of cocaine addiction. These include: (1) self-deception, (2) the deception of others, (3) the use of drugs in response to anxiety, stress, and failure, (4) multi-drug dependency and desperation to use and (5) the continuity of drug use and accompanying physical deterioration.

The present study has made initial efforts to link these themes to the social science and clinical literatures on drug/alcohol addiction. However, a more concerted and systematic inquiry would be useful to discern the degree of overlap between our popular culture conceptions of addiction (as depicted in motion pictures) and social science theories of addiction. Both are culturally-constituted texts, yet they are constructed by different social groups and serve the needs/objectives of different constituencies. Understanding how they differ and overlap in the meanings they apply to addiction would be not only a useful exercise in social deconstruction, but would perhaps also provide insights into how popular and scientific texts influence each other in giving meaning to phenomena such as addiction.

A further constructive extension of the present study would be to inquire how much of a phenomenological affinity active and recovering addicts experience with the characters depicted as addicts in motion pictures. Do 'genuine' addicts view these cinematic portrayals of addiction as echoing their own feelings and behaviors or do they see them as false images?

The answers to these and other questions engendered by an examination of the various vantage points from which the meaning of addiction is constructed would likely prove useful to addicts and social scientists, alike.

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Ethnicity and Consumer Product Evaluation: A Cross-Cultural Comparison of Korean Immigrants and Americans

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ABSTRACT

The United States is currently becoming ethnically more and more diverse. To date, the majority of the acculturation studies have focused on African and Hispanic Americans. Very little has been done to understand the "Asian American" population. In recent years, Asian Americans have emerged as a major minority group in the U.S. They have been described by the media as the "superminority," "the fastest growing minority," and "the next hot market." This study compared Korean immigrants and Americans in their consumer product evaluation. A survey using personal interviews was conducted among Korean immigrants and Americans (N = 400). Results indicate that there are indeed ethnic differences in consumers' evaluation of product attributes across four product categories (automobile, stereo system, laundry detergent, and coffee). An important discriminating variable consistently appeared was that of individualism versus collectivism. Both traditional as well as alternative acculturation patterns were observed.

INTRODUCTION

Culture is a way of life shared by a group of people (Swidler 1986). As such, it is manifested in actions, behavioral styles and ways of expressions (Berry 1980; Padilla 1980). Culture may therefore also affect consumers' evaluation of product attributes. Past studies have indicated that oftentimes the perceived importance of product attributes is related more to cultural expectations than to their functional utilities (e.g., Bauer, Cunningham, and Wotzel 1965; Faber, O'Guinn and McCarty 1987). Cultural influences have also been observed in areas such as family decision making (Davis and Rigaux 1974; Douglas 1976) and the adoption of new products or ideas (Dayrymple, Robertson and Yoshino 1971). This notion of cultural influence on the evaluation of product attributes is important for the understanding of not only consumers in different countries but also ethnic minority consumers in the U.S.

Acculturation describes the changes in attitudes, values, and/or behaviors of members of one cultural group toward the standard of the other cultural group (O'Guinn, Lee and Faber 1986; Padilla 1980; etc.). It is essentially a process of cultural exchange. As the U.S. is experiencing more and more ethnic diversity, the study of acculturation and its relationship to consumer behavior has begun to receive more attention. Researchers have studied the extent to which and the manner in which process of acculturation is articulated in consumer behavior (Alba and Chamlin 1983; Deshpande, Hoyer and Donthu 1986; Garcia 1982; Hirschman 1981; Lee 1989; Massey and Mullan 1984; O'Guinn and Faber 1985; etc.). To date, the majority of acculturation research have studied African and Hispanic Americans. There is

little doubt that these two groups are the fastest growing minority groups in the U.S. However, since each ethnic group is inherently different, it is doubtful that the theory developed based on one or two ethnic groups will hold true for all minorities. Furthermore, since the process and the pace of acculturation depend largely on the cultural distance between the dominant host culture and the ethnic culture, it is very important that we start to look into different ethnic groups. By doing so, we will no longer limit ourselves to the often fragmented view of ethnic minority acculturation.

As individuals become acculturated into the American culture, their attitudes and values will change. Traditional acculturation theory has postulated that as individuals acculturate they are likely to become more and more like the Americans (e.g., Gordon 1964; Kim 1979). Here, acculturation is considered as a uni-directional process. However, some recent studies have raised serious doubts about this traditional assumption (Stayman and Deshpande 1989; Triandis, Kashima, Shimada and Villareal 1986; Wallendorf and Reilly 1983; etc.). The validity of such a "one-way" process, in view of the current trend toward cultural diversity, becomes questionable. In order to draw out a complete picture of ethnic minority acculturation, more ethnic groups need to be studied and different perspectives and research methodologies need to be incorporated.

The present study aims to understand the impact of acculturation on consumer behavior of immigrants in the U.S. by focusing on Korean immigrants. Specifically, the study examines the evaluation of product attributes as a function of acculturation. Two key research questions are addressed in the study: (1) Are there any ethnic differences between Korean immigrants and Americans in their evaluation of consumer products? and (2) Will those ethnic differences become blurry as immigrants become acculturated?

CONSUMER PRODUCT EVALUATION

The process of choosing a particular consumer product can be a fairly complicated event, especially for immigrants. Various theories have been proposed to explain why and how consumers choose a particular product or brand (Mitchell and Olson 1981; etc.). Among the many attempts, consumer behavior researchers have studied extensively on how a consumer develops attitude toward a brand (Sheppard, Hartwick and Warshaw 1988). Fishbein and Ajzen (1975) suggest that there are two major components influencing an individual's attitude toward an object -- belief structure and evaluative criteria. An individual's belief that a brand possesses given characteristics may be formed through direct personal experience with the brand and indirect means such as interpersonal and mass media sources. The impact of cultural norms and

values on the belief structure may come from any one of the above sources depending on the acculturating individuals' chosen route to acculturation.

The second component, evaluative criteria, is where culture exerts the greatest impact. A consumer judges a product by certain attributes he or she feels are pertinent to the purchase decision of that product. They constitute the primary evaluative criteria for consumers' attitude toward a brand. These criteria can be either objective (e.g., price or warranty) or subjective (emotional benefits). Culture affects consumers on two fronts. First, culture provides a consensual validation on what attributes are considered pertinent and important to the decision of purchasing a product. Secondly, culture tends to highlight the subjective criteria through an implicit symbolic meaning system for consumer products in a society.

Previous cross-cultural studies have found that while attributes used for evaluating products are basically standard, certain attributes are considered more important to one group of consumers than to the other groups (e.g., Faber, O'Guinn and MacAdams 1984; Lester 1983). In fact, Faber, O'Guinn and MacAdams (1984) argue that "one of the most significant cultural manifestation in consumer behavior is the way in which a product is evaluated as a function of various attributes." An example may help illustrate the point that cultural norms and expectations influence the relative importance of certain product attributes. For instance, Koreans consider stickiness the most important attribute in rice. Also, they favor short grain rice. The stickier and the shorter the rice, the better it is for the Koreans. The opposite is true for Americans who prefer fluffy and long grain rice. Stickiness, in particular, is the least desired attribute for the Americans. Therefore, both groups may use the same attributes for different reasons. Faber, O'Guinn and MacAdams (1984) also state that stressing irrelevant attributes or ignoring a product attribute central to a given cultural group can lead to an increase in counterarguing against the message, lower recall and less attitude change within the ethnic segment.

Few scattered studies have focused on cultural variations manifested in the perceived importance of product attributes between ethnic minorities and Anglo Americans. African Americans have been found to prefer brand name and the status and image associated with a product (e.g., Aker 1968; King and Demanche 1970), and they are more concerned about price (Bauer et al 1965; Feldman and Star 1968). Hispanic American consumers, however, tend to be brand loyal and price conscious (e.g., Bellenger and Valencia 1982; Gillet and Scott 1975; Hoyer and Deshpande 1982; Sagert, Hoover and Hilger 1985), and they prefer prestigious brands (Guernica and Kasperuk 1982; Segal and Sosa 1983; Watanabe 1981; Yankelovick, Skelly and White 1984). Some evidence even suggests that Korean Americans are brand-conscious, family oriented, and rely on word-of-mouth (Venture 1987; D & B Report September/October 1986). Japanese Americans are likely to be rational consumers (Dalrymple et. al 1971). Although it is

generally believed that there is a difference between immigrants and Americans in their evaluation of consumer product attributes, exactly how they are different may depend on many other factors.

The cultural influence on the perceived importance of product attributes becomes a complicated issue if acculturation is taken into account. Immigrants' attitude toward a brand may be influenced by either their culture of origin or the new host culture. The traditional progressive learning model suggests that the acculturating individuals tend to be in a position somewhere between "total acculturation" and "total ethnicity" (Kim 1979; Padilla 1980). If they have achieved a very high level of acculturation, their evaluation of product attributes are more likely to be influenced by the norms and expectation of the host culture. In some cases, however, immigrants remain isolated from the host culture voluntarily or involuntarily, thus their evaluation of product attributes are likely to be affected by their culture of origin. Recently, this traditional view has been challenged. Wallendorf and Reilly (1983) suggest that acculturation may not be uni-dimensional. Triandis et. al (1986) argue that there could be the so-called "ping-pong" effects of acculturation depending on whether subjective or objective culture is being examined. Stayman and Deshpande (1989) empirically illustrate that ethnicity may even be situation dependent. Consequently, a general null hypothesis can be stated as:

Hypothesis 1: The highly acculturated individuals will fall between the Anglo Americans and the immigrants whose acculturation level is low.

THE STUDY

The present study is designed to compare immigrants in the U.S. and Americans in order to answer two key questions: (1) Are there differences between immigrants and Americans in their evaluation of consumer products? (2) Do these differences (if any) become blurry as immigrants become acculturated?

A survey was conducted among Korean immigrants and Americans during the summer of 1989. Self-administered questionnaires were distributed to Korean immigrants through friends' referral as opposed to some random selection procedure. This is due to Koreans' general negative attitude toward survey. Several previous studies on Korean immigrants (Hurh 1979; Hurh and Kim 1984) have pointed out that Koreans are unwilling to give out personal opinions to a stranger. In order to overcome the difficulty of obtaining responses, this study relied on friends' referral in selecting Korean immigrant respondents. Korean immigrants were selected from four metropolitan areas -- Los Angeles, Houston, Dallas, and New York -- since over 60% of the total Korean immigrants live in these areas (1980 U.S. Census). American respondents were approached in places such as shopping malls and supermarkets from

similar cities. A total of 400 questionnaires were returned (Korean immigrants = 180; Americans = 220).

Research Instrument

Two sets of questionnaires were used in this study (one for Americans and one for Korean immigrants). Both contained sections on various purchase considerations for the four product categories (automobile, stereo system, coffee, laundry detergent) and demographic information. An additional section with acculturation measures was included in the questionnaire for Korean immigrants. The English version of the questionnaire was translated into Korean so that Korean immigrants may feel more comfortable with and favorable toward participating in the study. Translation and backtranslation techniques were used in order to ensure the equivalence of the two instruments (Brislin, Lonner and Thorndike 1973).

Measurement of Major Theoretical Variables

There are two sets of major theoretical variables in the study, namely, acculturation and the evaluation of product attributes.

Past studies have employed a variety of measures for identifying levels of acculturation (e.g., Lee 1989). The variables included in this study are derived from the several sets of commonly used acculturation measures (Table 1). Acculturation may occur from both direct and indirect contact with the American culture. Direct acculturation is therefore defined as the direct physical contact with American social environment and operationalized as an acculturating individual's: length of stay in the U.S.; use of language at home, school/workplace, and among friends; favorite food; neighborhood ethnic composition; best friends' ethnicity; plan for future settlement; and number of visit back to Korea. Indirect acculturation generally occurs through media exposure to the American environment. It is operationalized as an acculturating individual's amount of exposure to American mass media (broadcast and print).

The evaluation of product attributes is operationalized in the present study as the importance an individual assigns to the product attributes for four different categories (automobile, stereo system, laundry detergent, coffee) when it comes to purchase decision-making. The four product categories were selected to represent a diverse spectrum in terms of product involvement levels. Product involvement is usually defined by three major factors: price, purchase interval, and perceived risk. At one end of the spectrum, automobile is considered as high involvement product since the purchase interval is long and price and perceived risk are usually high. Laundry detergent and coffee are usually at the low end of the involvement level given that they are low risk items and do not command high price tag. Comparatively, a stereo system should be somewhere between automobile and laundry detergent and coffee in its involvement level. All four products have seven common evaluation attributes: brand name/make of the model, price, product performance (comfort for

automobile, sound quality for stereo system, cleaning ability for laundry detergent, taste for coffee), advertising, friend's recommendation, brand that friends use/have, and family's preference. Each product then has either one, two, or three additional attributes (warranty for automobile; whether it's on sale for stereo system; whether it's on sale and coupon for laundry detergent; sale, coupon, type for coffee). For each attribute, respondents were asked to respond to "When you buy a (product), how important is (attribute)?" on a 7-point scale with 1 being "not important at all" and 7 being "very important."

RESULTS

An acculturation index was constructed based on the 15 variables that were used to measure the levels of acculturation of Korean immigrants. These 15 variables include: the amount of time respondents spend on American network television, radio, newspapers and magazines; language used at home, at work and among friends; length of stay in the U.S.; number of visit to Korea; place of future settlement; restaurant of choice; ethnic composition of their neighborhoods; and the ethnicity of their two closest friends. This acculturation scale was first tested for internal validity. The results of a reliability test indicated that the scale had a reasonable internal consistency with Cronbach's alpha of .77. Since those variables had different units of measurement, the score for each variable was standardized. Those standardized scores were then given equal weighting and summed together to get an acculturation score for each individual. The acculturation scores for Korean respondents ranged from -12.29 to 13.94. The mean was 0.147 with a median of -0.973. The median acculturation score was used as a cut-off point to divide Korean immigrants into two groups. Those falling below the median were classified as "low" in terms of acculturation level, while those with scores the same or above the median were classified as "high." Therefore, three groups were used for subsequent analyses: Korean immigrants low in acculturation, Korean immigrants high in acculturation and Americans.

Multiple discriminant analysis was first used to investigate the relationship between ethnicity and product evaluation. Each of the four products was analyzed separately, with their respective attributes serving as independent measures. Wilk's lambda was the selection criterion since it allows us to maximize heterogeneity as well as group homogeneity (Klecka 1975). The respective attributes for each product were entered into the analysis simultaneously. Once the functions were derived, they were interpreted according to the relative size and direction of the standardized canonical discriminant function coefficients. In selecting product attributes which discriminate the three groups, only those coefficients that were at least half as large as the greatest were considered to produce nontrivial variance and were used as the discriminant function (Tatsuoka 1970). An analysis of the direction and magnitude of the group centroids followed. The group centroids allow us to assess which group considered the product attributes more

TABLE 1
Measures of Acculturation

1. For the following occasions, please indicate what language you use most often.

	Korean Only	Mostly Korean	Both Equally	Mostly English	English Only
at home	1	2	3	4	5
at work	1	2	3	4	5
among friends	1	2	3	4	5

2. When did you come to the United States? _____

3. During your stay here, how many times have you visited Korea? _____

4. Would you say you would...

1. definitely go back to Korea
2. very likely to go back to Korea
3. somewhat likely to go back to Korea
4. somewhat likely to stay in the U.S. permanently
5. very likely to stay in the U.S. permanently
6. definitely stay in the U.S. permanently

5. Would you say your current neighbors are...

1. all Koreans
2. mostly Koreans
3. equally Americans and Koreans
4. most Americans
5. all Americans

6. If you have a choice to go to a restaurant tonight, what type of restaurant would you like to go to?

1. Korean
2. Chinese
3. Japanese
4. Mexican
5. Italian
6. American Continental
7. Others, please specify _____

7. Whenever you have free time, what type of books or magazines would you prefer for your leisure reading?

1. only readings in Korean
2. mostly readings in Korean
3. both Korean and English equally
4. mostly readings in English
5. only readings in English

8. What is the ethnic background of your very best friend?

1. Korean
2. Chinese
3. Japanese
4. Whites
5. Hispanics
6. Blacks
7. Others, please specify _____

9. What is the ethnic background of your second best friend?

10. How much time in a typical weekday do you spend with

1. American television programs
2. American radio programs
3. English newspapers
4. English magazines

important. The results of the discriminant analysis was then cross-checked through ANCOVA to make sure that the group differences in the evaluation of the product attributes were not caused by the influence of other variables.

Automobile

Multiple discriminant analysis with automobile attributes yielded two significant discriminant functions (Table 2). The first function, which accounted for 30.7% of the total variance, was characterized by family's want. Analysis of group

centroid indicated that low acculturating Koreans rated the highest on this discriminant function, followed by high acculturating Koreans and the Americans. It indicates that the less acculturated Koreans were most concerned with their "family's want" whereas highly acculturated Koreans were not as concerned but much more so than the Americans. The rank ordering of these group centroids was consistent with the traditional progressive learning model of acculturation. ANCOVA showed that after controlling the effects of income there was a significant difference in rating the importance of family's want across the

TABLE 2
Acculturation and Product Attribute Evaluation
Automobile

<u>Attribute</u>	<u>F1 Coeff.</u>	<u>F2 Coeff.</u>	
Family	0.95	0.03	
Price	-0.41	0.47	
Friends'	0.29	0.62	
Recomn	-0.30	0.08	
Make/Model	-0.21	0.22	
Advertising	-0.12	0.30	
<u>Group Centroids</u>	<u>Korean(low)</u>	<u>Korean(high)</u>	<u>Americans</u>
Function 1	0.86	0.42	-0.44
Function 2	-0.29	0.43	-0.05
<u>ANCOVA (Group Means)</u>			
Price	5.73	6.29	6.38*
Friends'	2.52	3.13	2.20*
Advertising	3.49	4.10	3.62*

Stereo System

<u>Attribute</u>	<u>F1 Coeff.</u>	<u>F2 Coeff.</u>	
Family	1.06	0.01	
Recomn	-0.32	0.36	
Make/Model	0.12	0.36	
Advertising	0.10	0.40	
Sound Quality	-0.29	0.27	
Sale	-0.39	0.33	
<u>Group Centroids</u>	<u>Korean(low)</u>	<u>Korean(high)</u>	<u>Americans</u>
Function 1	1.13	0.40	-0.51
Function 2	-0.26	0.46	-0.07
<u>ANCOVA (Group Means)</u>			
Family	5.27	4.55	2.83*
Recomn	4.13	4.72	4.16
Make/Model	5.66	6.13	5.59*
Advertising	4.00	4.51	3.78*
Sound Quality	6.15	6.54	6.31*
Sale	4.79	5.46	5.45*

* Significant at $p < 0.05$

three groups. The less acculturated Koreans rated the attributed the most important (mean = 5.45) followed by the highly acculturated Koreans (mean = 5.11) and the Americans (mean = 3.58). It appears that the highly acculturated Koreans fall between the Korean culture which emphasizes family-centered decisions (collectivism) and the American culture which focuses on the self-centered decision (individualism).

The second function accounted for a meager 5.7% of the total variation. This function was mainly characterized by price (0.47), what their friends have (0.62), and advertising (0.30). Analysis of group

centroids showed that high acculturation group ranked highest (0.43), followed by the Americans (-0.05) and the low acculturation group (-0.29). This indicates that highly acculturated Koreans considered a combination of what their friends have, advertising and price to be more important attributes in their purchase decisions than Americans and the less acculturated Koreans. The rank ordering of the group centroid, therefore, did not support the linear progressive pattern of acculturation. ANCOVA results revealed that the three groups are statistically different on the evaluation of the three automobile attributes.

However, the rank order of group means show different patterns. First, Americans (mean = 6.38) were most concerned with price followed by highly acculturated Koreans (mean = 6.29) and the less acculturated Koreans (mean = 5.73), supporting the progressive learning model. Second, the highly acculturated Koreans gave the highest rating on their friends' brand (3.13) and advertising (4.10). The highly acculturated Koreans in fact overshot in terms of their position. An alternative pattern of acculturation is observed here.

Stereo System

Discriminant analysis on stereo system produced two significant discriminant functions (Table 2). The first function, which accounted for 44.6% of the total variation, was mainly characterized by family's want. As was in the case of automobile, the less acculturated Koreans ranked the highest (group centroid = 1.13) on this function, followed by the highly acculturated Koreans (0.40) and the Americans (-0.51). This implies that the highly acculturated Koreans tend to depart from the traditional Korean value of family priority. ANCOVA reports the rank order of the group means to be consistent with that of the group centroids. The mean difference among the three groups is significant at the confidence level of 95%.

The second discriminant function accounted for 5.9% of the total variance. It was a combination of "the make and model," "sound quality," "advertising," "friends' recommendation" and "sale." Analysis of group centroids showed that the highly acculturated Koreans ranked highest on this function (0.46), followed by Americans (-0.07) and the less acculturated Koreans (-0.26). This pattern failed to support the linear progression pattern of acculturation. ANCOVA results for the four attributes (make and model, sound quality, advertising and sale) yielded significant differences across the three groups. The highly acculturated Koreans considered sound quality (6.54), make and model (6.13), advertising (4.51) and sale (5.46) to be important attributes more so than the other two groups.

Laundry Detergent

One significant discriminant function emerged for laundry detergent (Table 3). The function accounted for 39.7% of the total variance, and was mainly characterized by a combination of price, sale and family's want. The rank order of group centroids revealed the less acculturated Koreans falling highest on this function (0.77), followed by highly acculturated Koreans (0.74) and Americans (-0.52). The order of group centroids confirmed the progressive learning pattern of acculturation. ANCOVA showed that the three groups are significantly different in rating the importance of friends' recommendation and family's want. The less acculturated Koreans valued family's want the most (4.90), followed by highly acculturated Koreans (4.60) and Americans (2.70). The less acculturated Koreans' reliance on friends' recommendation (4.03) was almost as high as the highly acculturated Koreans (4.07) whereas Americans

had the lowest reliance on friends' recommendation (2.69) in making laundry detergent purchase decision.

Coffee

One significant discriminant function was produced for coffee attributes (Table 3). The function was mainly characterized by a combination of type (-0.64) and family's want (0.63) and it accounted for 41.1% of the total variation. Analysis of group centroids showed a traditional linear learning pattern with highly acculturated Koreans (0.52) falling between Americans (-0.59) and the less acculturated Koreans (0.82). In other words, the highly acculturated Koreans departed from the traditional value of family priority and learned the importance of coffee type for purchase decision-making. ANCOVA reported that both the type of coffee and family's want have significantly different means across the three groups after controlling for the effect of income. Americans have the highest scores on coffee type (5.88), followed by highly acculturated Koreans (5.36) and less acculturated Koreans (5.24). On the other hand, less acculturated Koreans scored the highest on family's want (5.44) followed by highly acculturated Koreans (4.54) and Americans (3.03).

DISCUSSION AND CONCLUSION

Results from this study indicate mixed patterns of acculturation. The linear/uni-directional pattern was found in terms of family priority which accounted almost 30% to 45% of the total variance. The nonlinear/alternative pattern was found in a combination of advertising, friends' recommendation and friends' brand which accounted for less than 5% of the total variation. It appears that family's want is the most important variable that discriminates the three groups across all four product types. Less acculturated Koreans tend to keep the traditional Korean value of family priority even in their evaluation of product attributes. This family priority is still manifested in product attribute evaluation among highly acculturated Koreans. However, compared with less acculturated Koreans, they seem to have made the move toward an individualistic orientation -- a distinctive American value.

Other discriminating variables differ from product to product. For the two high involvement products (automobile and stereo system), the second discriminant function revealed a nonlinear pattern of acculturation. In other words, highly acculturated Koreans tend to "overacculturate" into the American culture. This nonlinear pattern again raises doubts about the traditional progressive learning model. There has been some empirical evidence suggesting that the acculturating minorities may stray from the linear progression pattern of acculturation. Wallendorf and Reilly (1983) assert that the acculturating Mexican-Americans' cultural pattern is not a nice median between American culture and Mexican culture. Rather, they seem to have a unique cultural style of their own. This may come from the over-adoption of the stereotypical American culture without a deep understanding of the reasons and inner

TABLE 3
Acculturation and Product Attribute Evaluation
Laundry Detergent

<u>Attribute</u>	<u>F1 Coeff.</u>		
Family	0.80		
Recomn	0.37		
Advertising	0.09		
Price	-0.44		
Cleaning	-0.21		
Sale	0.40		
<hr/>			
<u>Group Centroids</u>	<u>Korean(low)</u>	<u>Korean(high)</u>	<u>Americans</u>
Function 1	0.77	0.74	-0.52
<hr/>			
<u>ANCOVA (Group Means)</u>			
Family	4.90	4.60	2.70*
Recomn	4.03	4.07	2.69*
Price	5.55	5.23	5.56*
<hr/>			
<i>Coffee</i>			
<hr/>			
<u>Attribute</u>	<u>F1 Coeff.</u>		
Family	0.63		
Recomn	0.31		
Advertising	0.18		
Type	-0.64		
Brand	0.29		
<hr/>			
<u>Group Centroids</u>	<u>Korean(low)</u>	<u>Korean(high)</u>	<u>Americans</u>
Function 1	0.82	0.52	-0.59
<hr/>			
<u>ANCOVA (Group Means)</u>			
Family	5.44	4.54	3.03*
Type	5.24	5.36	5.88
<hr/>			
* Significant at p < 0.05			
<hr/>			

logic behind the cultural style. The same reason may also apply here. The highly acculturated Koreans tend to want to become more like the Americans and thus actively adopt the American cultural styles. They observe what their friends buy, listen to what advertising says and adopt their friends' recommendations. Of course, their peer group at this stage could include more American friends. This might be the main reason why highly acculturated Koreans outscored Americans and the less acculturated Koreans on advertising, friends' recommendation and what their friends own.

A series of multidiscriminant analyses show that there are indeed ethnic differences in the evaluation of product attributes between Americans and Korean immigrants. The major difference is the different weights that each culture puts on the importance of family. Koreans tend to be more family-oriented in their product evaluation than

Americans. The highly acculturated Koreans still has this value even though they have made a substantial progress toward the individualistic American value. Other than this significant attribute, others tend to vary widely from product to product. Therefore, it is difficult to have a definitive conclusion. Since the traditional theory can no longer accommodate the dynamic process of acculturation observed in this study, as well as several other, new and alternative conceptualization needs to be explored. Results from this study, if anything, confirms such urgent need.

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The Cultural and Political Economy of the Indian Two-Wheeler

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INTRODUCTION

This paper is part of a project that combines political economy, communication theory, and cultural anthropology to examine India's economic liberalization, its accompanying consumer boom, and the communicative resources unleashed by the recent flood of consumer goods in India. More specifically, the project addresses the conceptual relationship and interaction of what John Fiske, in his volumes, *Reading the Popular* and *Understanding Popular Culture* (1989), calls "two parallel, semi-autonomous economies." In these two studies, while demarcating between production and consumption, and while stressing that the conditions of production of a cultural system are not the same as, and do not predetermine, the conditions of use and consumption, Fiske makes a crucial distinction between what he terms the *financial* and *cultural economies* of television texts. In his work, the financial economy refers to the role television texts play generating wealth (advertising revenue, syndication fees, etc.), while the cultural economy refers to the ability of texts, combined with creatively active readers, to generate "meanings, pleasures and identities" (*Understanding*, pp. 26-27).

My project, based on a study of the product category of Indian two-wheelers, assumes that Fiske's distinction can be productively applied to consumer goods. I, however, will expand his conceptualization of the financial economy to reflect my wider concern with the flow, distribution, allocation, and accumulation of economic surplus and its accompanying socio-political arrangements (production relations, legal strictures). I will rename it a political economy of texts/goods.

The cultural economy of goods, on the other hand, is concerned with the "manufacture and trajectory" (the terms are McCracken's) of cultural meaning. While a political economy impels us to track the movement, distribution, and institutional arrangements accompanying the flow of surplus, a cultural economy directs us to track the flow and movement of significance and cultural meanings and their cultural implications - Fiske's "meanings, pleasures, and identities". The argument here is that a full cultural analysis of the significance and meaning of a given consumer good must explore a textual meaning, how that meaning was arrived at (meaning movement, a cultural economy), and how the larger political economic context frames meaning-making.

Many questions arise when we consider the relationship between the productive and symbolic orders. One concern here will be how the productive order, certainly a major player shaping social conditions and social positions, resonates via a steady flow of consumer goods with the symbolic order. How that is the design, marketing, and advertising - literally, the production of meaning - that accompanies the world of goods must, in order to resonate with the social world, give due regard to

reigning social conditions and subject positions. One purpose here is to make a contribution to a cultural economy of the meaning of consumer goods in light of these questions. Another is to provide some instances where the symbolic order - here consumer goods cum material culture - has been used to reflect on the institutional arrangements of the productive order.

After a short social history of the scooter, I will examine these questions by combining my work on the Indian two-wheeler - a product category including scooters, motorcycles, and mopeds - with two very illuminating papers, one by Grant McCracken (1986) and the other by Dick Hebdige (1988). Some examples of actors reflecting on the less directly meaningful domain of political economy via the medium of consumer goods will be provided.

RANDOM NOTES ON THE HISTORY OF THE SCOOTER

Italy. The scooter, as we know it today, emerged from post World War II Italy. Both Innocenti's Lambretta and Piaggio's Vespa (Vespa means Wasp in Italian) emerged simultaneously to capture the mood and market of the post-war generation. Scooters were cheap, stylish, and importantly, they could negotiate war torn roads. Scooters were sharply distinguished - nitched as they say in the trade - and marketed as friendly, sociable vehicles. Advertising campaigns targeted women and an emerging genre of consumer - teenagers. As Hebdige points out: scooters were gendered "feminine" both by design and mediation. Adverts emphasized ease of use, simplicity, social touring, tourism, picnics, and the like. Machismo motorcyclists condescendingly referred to the scooter as "the hairdresser on wheels."

D'Ascanio, Vespa's designer, drew on emerging production processes to incorporate motifs from airplane design (such as the scooter's stressed skin, or sheathing, and stub axle wheel mounting). The political economic frame of scooter production required a bricolage of surviving Italian talent, production processes (whatever remained standing after the war) and the import of financial and productive capital (Marshall Funds).

The scooter also can be seen as a commodity that typified, like the products coming out of Harley Earl's GM Styling Division, the emergence of a new post-war theory of selling (or profit realization) - the packaged, stylized post-war product had arrived. This "theory" must be understood as representing important shifts in production processes, in the scale and rate of capital accumulation, and in the relation between the commodity and the market. Likewise, the new theory of selling must be understood as linked to the Fordist production line and in corporate/monopoly efforts to protect massive capital investment by managing patterns of consumption.

Britain. While this productive frame evolved in Italy, in Britain the cultural significance of the

object took on new and diverse cultural meanings. Hebdige identifies a major fault line in what he calls the national "official reception" of the scooter. On the one hand there was the reception, or reading, of the scooter by those social actors identified with declining heavy industry. These actors, having technical and financial capital tied up in the existing motorcycle product and market, tended to promote and identify with a negative reading of the scooter-text as an object clashing with prevailing definitions of masculinity. On the other side of the fault line, were those, positioned in the ready-to-boom design/fashion sector, who gave a much more positive reading of the scooter-text. Their alternate reading of the consumer good was guided, Hebdige suggests, by their interest in transforming the market and in aestheticizing its products. Perceived as "foreign competition" by one sector, to the other, the scooter-text was "the look of the future."

A complex reflection of this response to and reading of the scooter, was the Mods subcultural incorporation of the scooter as a "product complement" (in McCracken's terminology) to a consumption style that included consumer goods such as Hush Puppies and French Berets. The Mod's scooter served to mark them apart from the Rockers, who were oriented to motorcycles and a variety of more masculine consumer goods, such as boots and leather jackets. In Britain also, the scooter suffered through two different phases of customization: a baroque phase, marked by the use of streamers, extra mirrors, chrome, and the like, and a minimalist phase, where the scooter was returned to the "masculine" by the stripping of its sheathing. These activities - the ritualized reconstitution of the consumer good - fit nicely into McCracken category of possession rituals.

India. The Lambretta was introduced to Indian consumers in the early 1960's via a production agreement between Bombay-based Automobile Products of India and Innocenti. Indeed, in northern India "Lambretta" or "Lamby" rapidly became the Indianized generic name for scooters. Several years later Bajaj Auto formed a production agreement with Piaggio to produce a line of Bajaj "Vespa" scooters. Today, having divorced itself from Piaggio, Bajaj produces its own "Vespas," and Piaggio collaborates with LML, an Indian firm. During the 1960's and 1970's, because of restrictive government policy (licenses, production controls), a family could remain on a list for up to seven years waiting for the opportunity to purchase a scooter. Now, largely because of an emerging competitive environment, there is no longer a wait, and the scooter is the top selling two-wheeler in the country: 1) scooter sales per month = 65,000 units; 2) mopeds = 34,000 units; 3) motorcycles = 36,000 units.

Thinking in terms of a two-wheeler "code of commodities" and what scooter ownership signifies, as opposed to other two-wheelers, statistically the situation is as follows - 1) mopeds: these are associated either with lower income families, as their primary means of transport, or with pre-university students from the upper classes; 2) motorcycles: this is a mixed genre whose ownerships is split between

the upper peasants who prefer heavy 1950's Polish and UK designed motorcycles, and the new Indo-Jap collaboration 100cc's which are the rage amongst upper class college students and young, yuppie-type professionals, and 3) scooters, which, excepting the Kinetic, are associated with salary earners and shopkeepers, who have started families.

Owning a scooter today in India appears to be similar to owning a station wagon in 1950's and 1960's America. Indeed, it is the scooter's use value - its durability, its repairability, and, especially its floor board, a feature providing the scooter owner with the ability to carry his family, which determines to a great extent the scooter's symbolic and commercial value. In a movement reversing both Marxian and classical utility theory, the scooter's monocoque/sheathing design - signifier in Italy of gender, and then of subculture in Britain - only took center stage as a use-value when transplanted into India.

Oddly, this functional use of the scooter's floorboard cannot be shown in scooter advertising - government regulations prohibit showing a third rider on the scooter. Consequently, this utility function is removed from mass mediation. Bajaj Auto markets its scooter's in a sentimental nationalistic tone, while LML stresses its vehicles' safety features. Both advertising campaigns pitch to the consumer's sense of identity either, in the one case with India, or in the other, with the family.

In the southern state where I conducted my research, Karnataka (pop. est. 45 million), there are, as of 1990, 887,000 two-wheelers, 120,000 cars, 44,000 auto rickshaws, and 15,000 buses. Fully 70% of all vehicles in the state are two-wheelers, and only 10% are private cars. Over 50% of the state's 400,000 two-wheelers are in Bangalore city, where I conducted my field work. Nation-wide penetration of the two-wheelers (per 1,000 households) is as follows: 1) mopeds: urban 6.14; rural 2.13; total 3.23; 2) motorcycles: urban 3.83; rural 1.17; total 1.90; 3) scooters: urban 11.21; rural 1.59; total 4.22.

The growth of two-wheeler ownership in Bangalore, with its 4 million inhabitants, has been: 18,000 in 1970; 97,000 in 1980; 399,000 in 1988. This growth reflects several things, but primarily, a growing population, a rapidly expanding middle class, a government incomes policy that directs purchasing power to the middle class, and the 1980's economic liberalization.

THE SCOOTER IN INDIA

I would now like to try to give some sense of the consumer meanings, pleasures and identities attached to the Bajaj scooter. These comments are culled from my research and are intended only to capture some of the object's cultural significance, and not the trajectories by which that significance has been arrived at, the latter being a question of what I have earlier called the cultural economy of the commodity.

1) Focus group with school children. On the look of the scooter:

"a normal useful vehicle," "a family friend," "for shopping," "looks friendlier than an Enfield," "its meant for shopping," "king of the road," "absolutely smashing," "it looks like it is smiling," "I can see images of small people standing in the front," "good for Indian roads and middle-aged people," "looks delicate but is sturdy and tough"

- 2) Lintas ad agency account rep. On the differences between a Bajaj Scooter vs. a Yamaha 100cc user:

unlike the motorcycle user, the scooter user has a slightly more conservative profile; he's much more of a family man; he's slightly older than the typical motorcycle rider; he's more into functional usage of the product and not really for the fun of riding it; unlike a motorcycle rider there may not be much of this man-machine relationship; a Yamaha guy is brash, on the move, quick to take decisions, the kind of guy who on a weekend likes a girl on the back, the wind in his hair; the scooter user has a sedate, mundane life style; he is through with the good things in life.

- 3) Review, "The Lion Whelps," *Car & Bike*, Nov. 1987:

The first scooter I saw on Indian Roads was the Innocenti- Lambretta. Time was when colloquially Lambretta meant Scooter - any scooter ... The scooter's visual appeal took the urban middle class by storm. As opposed to classic motorcycles wherein almost all parts are visible and exposed, in the scooter *everything* (not almost but exactly) that did not need touching by the rider was covered. ... the Lambretta did not get 'branded' as a ladies vehicle which proved to be a great boon to API, and its popularity among urban males shot up ... sales soared and API rode the crest of the profit wave three decades ago. Enter the dragon - in the form of a buxom looking scooter more than two and a half decades go. Its eye appeal was even great, But people did express reservations at that time. Some said, 'how can a scooter be stable when the engine is on one side?'; but the dragon steamrolled over all of them to become the greatest success story on two wheels in India.

- 4) Editorial to " Scooter Buyers Guide," *Car & Bike*, May 1989:

There is something about a scooter. As a genre scooters arrived half a century after motorcycles. Why did no one think about them before? As a race, we Indians are genetically fond of scooters. More so than motorcycles ... the sales figures are proof. The genetic theory holds true even more because of what one sees overseas. In Malaysia and Singapore ... 90% of scooter riders are ... genetically Indian. The

scooters they ride are not imported from India but genuine Vespas ... So their preference for scooters cannot be because of any affinity to India. ... Why is the Indian gene so scooter oriented? That's one for psychologists, psychiatrists and sociologists to answer. The reason therefore has to be social and/or need based [mentions carrying space, can carry kids or suitcase on floor, lockable dickey space]; Is that the reason why scooters are such a hit in India? Imagewise, a scooter projects the rider as a solid family man, rather opposite that of a man on an Indo-Jap out to sow wild oats. Even the cops are more considerate to a man on a scooter ...

- 5) Interview with sociologist (Bangalore):

there is perhaps a stagnant craze for the Bajaj scooter ... everyone seems to feel that the ultimate answer to your two-wheeler requirement - its the Bajaj; every person with whom I have discussed my vehicle - it's a Vijay Supra - in every context I've talked to some one - either you've had a toss or had a puncture or a breakdown or whatever - the moment you stop talking they say 'see you shouldn't have gone for this here, you should have gone for a Bajaj'; this is the one constant thing...why this fixation on the Bajaj?

Interviewer: But the young university student, he doesn't want a Bajaj, he wants a 100cc Yamaha, right?

Karanth: Right - but wait till he gets married and has a child ... the moment there's a child. *[And much later in interview]:* I am still unable to resolve this fixation for Bajaj. Let me tell you a story of a good friend: He bought a vehicle - a Bajaj Chetak - he bought it out of the sheer fixation that he had that this is the only vehicle you should buy at all if you are buying a vehicle; and now he's telling me that he's looking for another vehicle which has a lower seat because he was so shocked he couldn't even reach the pedal; he never knew; he never thought of that; this is another extreme, you see that fixation is so much ... and then there is this fixation of all my colleagues who have bought a Bajaj; so many of them have bought it because of 'resale value'; you just go to any mechanic today - just go - you ask them one standard question: 'how many of your customers who come for repairs will ask you - every time they go back taking the vehicle - as to what the cost would be if he were to sell this vehicle? he wouldn't sell it, he wouldn't; but he'll ask nevertheless; he'll ask the mechanic: 'how much would I get for this?' and the mechanic says, 'well 6,000/7,000 rupees - like that'; he gets emotional satisfaction; he'll freak out on that; yet he'll never contemplate on selling it.

In short, what we see from the combined random notes on the social history of the scooter, and from the material culled from my research, is that the scooter in Italy, Britain, and India, while materially the same physical object, has taken on very different cultural meanings. Operating within different political economic structures, seen by different people, at different times, from differing perspectives, the scooter has generated diverse meanings, pleasures, and identities. For actors spread across social space and through time, it has been a different object. Appreciating this diversity, is one question, theorizing its movement, however, another.

MCCRACKEN & HEBDIGE

In order to begin to build a conceptual framework to account for the meanings, pleasures and identities identified above, we will now turn to two important papers. The first is Grant McCracken's, "A Theoretical Account of the Structure and Movement of the Cultural Meaning of Consumer Goods" (1986). McCracken's insightful, clear-headed accounting, amounting to a prescriptive outline for following the manufacture and trajectory of meaning in consumer goods, falls into what I have above called a cultural economy of meaning. As I've stated earlier, McCracken stresses the mobile quality of meaning, suggesting that we track the intentional agency-driven transfer of meaning from the already-existing cultural world *into* the product (design), *onto* the product (advertising), and *out of* the product (use). Importantly, he stresses how the manufactured meaningfulness of consumer goods ultimately loops back to assist social actors in the construction of the social world.

Following McCracken's model, and recapping the short history given above, we've seen how, first, as originally designed, the Italian scooter gives form to the gender category "feminine," and, as a kind of motivated sign, it actually displays the ideological principle guiding this gendering - the smoothness, the separation of mechanical parts from the consumer, etc. Secondly we've seen that, in mass mediation, first the quality of "sociability" (in 1950's Italy) and then the quality of "nationhood" (in 1980's India) were intentionally attached to the original Vespa cum Bajaj scooter. Thirdly, we've seen some examples of the ritualized extraction and reconstitution of commodity meaning. These are those instances where, as McCracken puts it, goods are used to "affirm, evoke, assign, or revise the conventional symbols and meanings of the cultural order" (1986, p. 78).

Here are some examples of these ritualized actions in Europe and India: the Mods use of the scooter in the subcultural revision of their social lives; the baroque and minimalist phases of scooter customizing; a proud 100cc owning Indians who, in addition to meticulously cleaning his cycle, goes to the extreme, on a weekly basis, of switching out stale for fresh air in his motorcycle tires; the ritualized marking of social passage or transition marking via parental gift-giving (eg., of mopeds to young upper class Indian girls to mark their passage of the pre-university exams, or of 100cc's to young Indian men

upon entering university); and lastly, as an incorporation ritual, the Hindu puja performed at the purchase of a new vehicle.

Also, and lastly, along McCracken's model, we see a fashion system which, as he maintains, often outruns the mass mediated meaning-producing reach of the capitalist class's agents of surplus realization. A major element of the two-wheeler fashion system is something I would call street media, the everyday spectacle of persons of certain caste, class, ethnic, generation, and gender identities, wearing other identifying signs - such as clothing - driving specific models of two-wheelers. In this fashion system a Levi-jeans and Adidas-clad university student or a safari-suited, middle-aged, middle-class Bajaj-scooter driver might closely fit the set of meanings a company considers to fit best their sales strategy, but the street media of Indian women driving Kinetic Hondas - and thereby making it a "sissy scooter", as one informant said it, may be quite out of tune with the image a company has in mind for its product.

Other instances of the fashion system at work occur in magazines such as *Car & Bike* and *Indian Auto*. These magazines provide abundant materials reflecting both McCracken's concern with the manufacture of meaning, as well as Fiske's textual concern with meanings, pleasures and identities.

- 1) Self/consumer good, practices (letter to the editor, *Car & Bike*, Aug. 15-Sept., 1989):

I am the proud owner of a RX 100. With respect to your May '89 edition ... Mr Satish has praised his KB. I think he has never ridden a RX 100. It is the best bike in the 100cc class. You just can't feel the power in the KB. Whereas in RX, one can really feel the thrust under him urging him on. The more power you want, the more you get. I'm just 19 years and of course would like to show off to the girls. In this matter RX has never let me down. Doing a wheelie is so simple and the sound is just great when you rip across the street. - Shekar Reddy

- 2) Product reviews also can contain interesting examples of the self/consumer good relation (*Car & Bike*, December 1989):

After our road test supremo Dilip Bam had finished his test and the bike was handed over to me for the performance tests and photography, it became a problem for me to leave the bike alone. The RX had captivated me - it was like I had fallen in love for the first time like a 16 year old adolescent, who wanted to be with his girlfriend all the time. ... Just as Gene Wilder went crazy over Kelly McGillis in *Woman in Red!* The RX100 had some sort of similar effect on myself as I went completely bonkers over it ... and I can say that the RX 100 HAS NEVER LET ME DOWN.

- 3) Here a product review captures nicely both the sensibility of the typical 100cc owner, and the excited response of an entire generation of young upper- and middle-class Indians to the 1980's consumer boom (*Car & Bike*, January 1988):

My own conclusion is that the RX is the bike of youth. Of impatience. Youth just *has* to get ahead. Overtake everything in sight. The RX responds beautifully to young desires. The greatest feature of the RX is its ability to overtake everything on Indian roads - including the Maruti.

The strength of McCracken's model is, of course, its anthropological and communicative orientation to material culture. Examining the trajectory and manufacture of meaning certainly gets the researcher on the right track. But one wonders if the model is possibly a little too tidy. Is it only a question that, as McCracken so nicely puts the cultural issue, "goods have a significance that goes beyond their utilitarian character and their commercial value" and that "this significance rests largely on their ability to carry and communicate cultural meanings" (p.71)?

Do we want to organize our theoretical imagery of the cultural significance of consumer goods as a kind of layer cake of values where there's utility (or use value), then there's commerce (or exchange value), then there's cultural meaning (or sign value)? Or are we possibly looking more at a kind of irregular marble cake where, at varying moments and across social space, the values of utility, commerce, and cultural meaning swirl to alternatively dominate one another.

Only by addressing the question in this manner can we begin to understand how the cultural connotations of something such as the Bajaj scooter are bound up with the productive order. And please note that I don't believe that offering an account of this linkage goes beyond what social actors sometimes actually do when they engage themselves with the cultural meanings of consumer goods. As evidence I offer this commentary from a product review of two scooter brands, a reflection comparing two productive units - one private, the other public sector - which addresses the possibilities of innovation and labor productivity under private versus state ownership (*Car & Bike*, May 1989):

But then how can a public sector company innovate? It had to fail and it did. The only plus point in favour of this scooter was the time it appeared: Exactly when Bajaj Scooters were selling at a massive premium. Today the factory is closed, it's employees on strike. Rahul Bajaj wanted to take over this company, the government too wants that to happen, but the employees don't want that - they are afraid that if Bajaj takes over, they might have to actually work! (a review of the Vijay Super, a public sector scooter made by Scooters India).

By this accounting the quality of the Vijay is defiled, justly or unjustly, by its association with state production. But, and importantly, this need not always be the case. Indeed, one of the messages of the little Maruti auto is just the reverse - the Indian government, at least in collaboration with the Japanese, can produce quality.

But the cardinal point is this: We must also begin to understand how social relations of production and other questions relating to production, such as, with the Bajaj, production shortages, and consequently, interminable waiting, can play a role in molding what the informant above called the "stagnant craze" for the Bajaj. We must begin to understand how, in an impoverished country, the scooters' utility function - its ability to carry three and four family members - shapes not just the commercial value, but also the cultural meaning of the scooter.

Thus, in reconstructing commodity meaning, while we must take into account, as McCracken maintains, the passage of consumer goods from the frames of design to mediation to use, we also must draw back on occasion to examine the structures within which these frames operate. So that, to give one of many possible examples, understanding the designed meanings of consumer goods requires not just an analysis of how goods do duty incorporating cultural principles, such as, for example, how something like a push-button auto transmission can encode the cultural idea of progress. But also how, beyond mediated events such as design, advertising, exhibitions, reviews, advertising, user groups, and owner consumption rituals, commodity-meaning is also tied up with things like: 1) the intracorporate division of labor (say, between, at the design stage: engineering, styling, and management); 2) constraints of available technical resources, ability and willingness to modify plant; 3) labor relations and labor processes; and 4) distribution and retail.

Dick Hebdige's paper, "Object as Image: The Italian Scooter Cycle" (1988) provides a strategy. While Hebdige's approach is similar to McCracken's in that he stresses that we track meaning, in addition, he strains to account for the political economic issues discussed above so that the the cultural analysis of consumer goods can be placed into the structures of the political economic context. Earlier I provided Hebdige's accounting of how different sectors within Britain's social structure reacted to the arrival of the Italian scooter. Along these same lines we certainly would want to consider Mahatma Gandhi's mobilization of India's peasants to nationalism and socialism around the indigenous cotton, khadi.

By this accounting the meaning of a particular consumer good, say of the Vijay scooter, must be subject to a sociology of knowledge; that is, to an accounting of the subject and social position of the reader. How many, for example, within the social structure are able to factor into his or her decoding of the consumer good things such as labor and productive arrangements? This also reinforces the idea that the cultural significance of a consumer good must at many moments, according to the social position of the

actor, be interpreted as occurring in a dynamic state of tension with the reigning political economic order.

Only if these issues are addressed will we be able to claim that we have provided an accounting of the cultural significance that provides for every possible point and moment where meaning is fixed. Only then can we claim to provide what Hebdige calls a "a unified account of all the multiple values and meanings which accumulate around a single object over time" (1988, p. 81).

CONCLUSION

In the Upanishads Maitreyi questions Yajnavalkya as to whether her wealth will bring her immortality. Receiving a negative answer she then asks: "What then should I do with that by which I do not become immortal?" By now I hope that the answer to Maitreyi's question is clear: We are to *communicate* with our wealth. I hope if nothing else that this paper has established that, while this is fully a matter for cultural analysis, it is a cultural analysis which must be carried out in the context of a larger, largely political economic context. I conclude with a final example of the merging of the political and cultural economies of meaning: Several days before finishing my field work and returning to the USA, a close friend and informant, Hari, made a special trip to visit me at the home where I lived. He had with him a photograph he had clipped from the *Deccan Herald*. Before showing me the photo however, he sang, with the utmost delight and with a glimmer in his eyes a line from the jingle of a popular TV advertisement for the TVS Champ moped. The line: "Oh What a Way to Get Carried Away! TVS Champ." The photo: A completely burned-out and destroyed shell of a bus. The bus in fact was TVS's executive bus. It had been attached and destroyed just outside Bangalore while fully loaded with its precious cargo. What was "getting carried away" in Hari's mind and rendition was, of course, not some proud TVS Champ owner, but an angry labor force. It struck me then and there that the little TVS Champ would forever have a slightly different connotation for Hari. The productive order had intruded successfully into the carefully managed meaning of the TVS Champ.

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The Ethnicity and Consumption Relationship

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ABSTRACT

This paper investigates the influence of situational factors on the relationship between ethnicity and consumer behavior. Findings based on analyses using data from a 1989 Survey of Hispanics in the Los Angeles metropolitan area conducted for *The Los Angeles Times*, suggest that behavior is a function of ethnicity, social surroundings, and product type. Results also indicate that ethnicity is a dynamic, complex construct that is comprised of both inherited and acquired characteristics. While the available data are limited, this analysis raises the possibility that the situational ethnicity model proposed by Stayman and Deshpande (1989) can be improved with the addition of the variable, cultural identity.

The dramatic rise in immigrants to the U.S., especially from countries in Latin America and Asia, has prompted researchers to investigate the hypothesis that one's ethnicity influences consumption patterns (Stayman and Deshpande, 1989; Deshpande, Hoyer, Donthu, 1986; Pitts, Sheth, and Valencia, 1986; Hirschman, 1981; Belk, 1974, and Lutz and Kakkar, 1975). Most recent work in this area has focused upon refining the concept of ethnicity. As Deshpande, Hoyer, Donthu (1986) assert, the lack of discipline that has been followed in defining ethnicity (i.e., surname, country of origin, paternal ancestry, self-identification, language spoken at home) has led to inconsistent and contradictory findings which hinder theory building. The discrepancy in definitions is problematic also in that it implies differing assumptions about the nature of ethnicity. Contributing much to both the conceptualization of ethnicity and to the literature on consumer subcultures is the work of Stayman and Deshpande (1989), who have specified a model of situational ethnicity. (See Figure 1.)

According to Stayman and Deshpande, situational factors (i.e., social surroundings and type of product) influence the relationship between ethnicity and consumer behavior. In other words, such behavior is a function of ethnicity, social surroundings, and type of product. Social surroundings and type of product are rather straightforward variables. However, ethnicity continues to be a troublesome concept. "Felt ethnicity" is a new concept identified by Stayman and Deshpande; it is defined as a transitory psychological state of individuals that is manifested in different ways in different situations. It is distinguished from the idea of ethnicity as a stable, sociological trait that is manifested in the same way at all times. The theoretical rationale underlying this idea of dynamic ethnicity is the contention by sociologists (Yancey et al., 1976) and psychologists (McGuire et al., 1978) who argue in different literatures that ethnicity is not just who one is, but how one feels in different

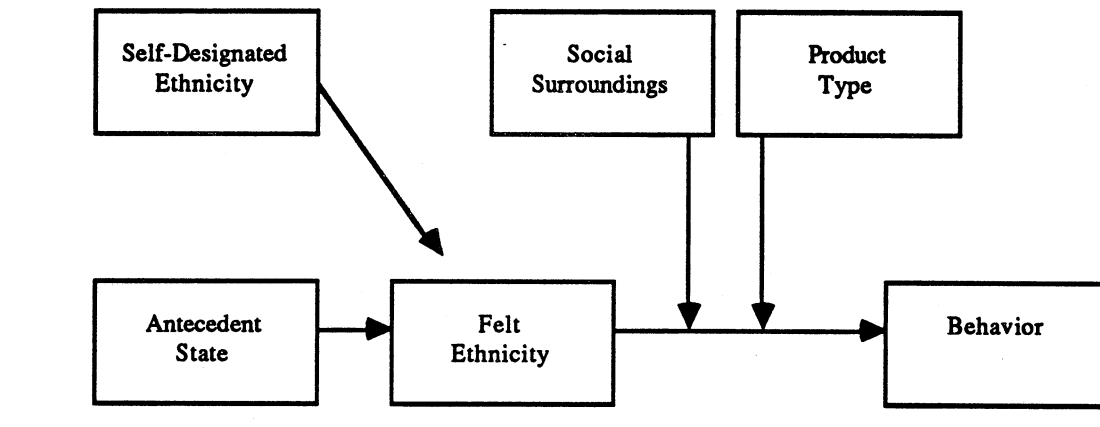
situations. In specifying ethnicity as a dynamic concept, Stayman and Deshpande have found consistent support for the effect of situational factors on consumer behavior. For example, in their most complex test of the model (a four-factor, mixed effects design), Stayman and Deshpande (1989) found that Hispanic, Asian, and Anglo subjects switched the type of food consumed (among Mexican food, Chinese food, and American food) based on their social context. Their use of situation-specific, felt ethnicity increased explained variance in likelihood of choice over that explained by either self-designated ethnicity alone or use of non-situation specific, felt ethnicity. The present study seeks to more rigorously test this finding through the use of structured-equation modeling with the LISREL program (Joreskog and Sorbom, 1988). Thus, the first hypothesis to be tested in this study is as follows:

H1: *Behavior is a function of felt ethnicity, social surroundings, and product type.*

With the understanding that an individual's ethnicity is a complex state of being, Stayman and Deshpande specify it with by use of two theoretical concepts: self-designated ethnicity and felt ethnicity. In terms of the relationship between these two variables, felt ethnicity is a function of self-designated ethnicity, and antecedent state. According to Stayman and Deshpande, antecedent state refers to how ethnic one feels in the face of bias towards the target group. Stayman and Deshpande supported the earlier work of Deshpande, Hoyer, and Donthu (1986) in finding that self-designated ethnicity and antecedent state influence felt ethnicity. However, a relationship not specified by Stayman and Deshpande was the notion that social surroundings may influence felt ethnicity as well. For example, research in language acquisition and sociolinguistics has uncovered the phenomenon of "code switching". This is a practice of bilinguals who switch languages according to the social context in which the language use takes place. While early in the field of linguistics code-switching was thought to connote the idea that the individual was in a transitional state — going from one language system to another one. More recent work has shown that code-switching is actually a function of changes in an individual's strength of ethnic identity which may vary according to social context (Gumperz, 1978, 1976; Valdes Fallis, 1980). Thus, it may be that the Stayman and Deshpande model could be improved with the conceptualization of social surroundings as an antecedent condition to felt ethnicity and not simply as a moderator of the felt ethnicity and behavior relationship.

Another potentially rich modification in the model involves the addition of a new variable, cultural identity. While Stayman and Deshpande found that situation-specific felt ethnicity is a better predictor of

FIGURE 1
Casual Model of Situational Ethnicity and Consumption



behavior than non-situation specific or self-designated ethnicity, the differences in R-square among the three conditions are not highly significant. This implies that the construct, felt ethnicity, can be improved. In going back to earlier work of Deshpande (Deshpande, Hoyer, and Donthu, 1986), it appears as though Weber's definition of "ethnicity" was used in early theorizing. According to Weber (1986), ethnicity is a common inherited and inheritable trait that actually derives from a common descent. Viewed in this way, ethnicity is seen as a stable trait. One way to view ethnicity as having both stable and varying properties is to suggest (as does anthropological theory) that ethnicity functions in two distinct ways: a cultural identity which is stable and a social identity which varies (Fitzgerald, 1974). Social identities, then, vary to suit the social surroundings. The individual shifts behavior with each adaptation to new situational demands. Social identification facilitates change; and opens the individual up to experiences that produce new identities or new social stances. In anthropological terms, social identity refers to the phenomenon of "acculturation." This is the integration of ethics at the primary level (i.e., kinship, neighbors, and close friends) (Alba, 1976, Gallo, 1974).

Cultural identity, on the other hand, refers to one's basic group identity. It refers to identity at the group level vis-a-vis some other group. A sense of cultural identity supplies a unifying "identity" thread as people strive toward consistency from one situation to another. McGuire et al. (1978) suggests that individuals in a multi-ethnic society such as the United States are likely to have a set of ethnic and other identities that may be differentially salient. Thus, there appears to be theoretical support for the addition of both social surroundings and cultural identity to the list of variables that predetermine felt ethnicity. The second hypothesis to be tested is:

H2: *Felt ethnicity is a function of self-designated ethnicity, antecedent state, social surroundings, and cultural identity.*

In essence, I am suggesting that the more elaborate situational ethnicity model (see Figure 2) is a more promising representation of reality than the Stayman and Deshpande model presented in Figure 1. In using structural-equation modeling to test this proposition, I submit the final hypothesis:

H3: *The modified situational ethnicity model is a good fit to the observed data.*

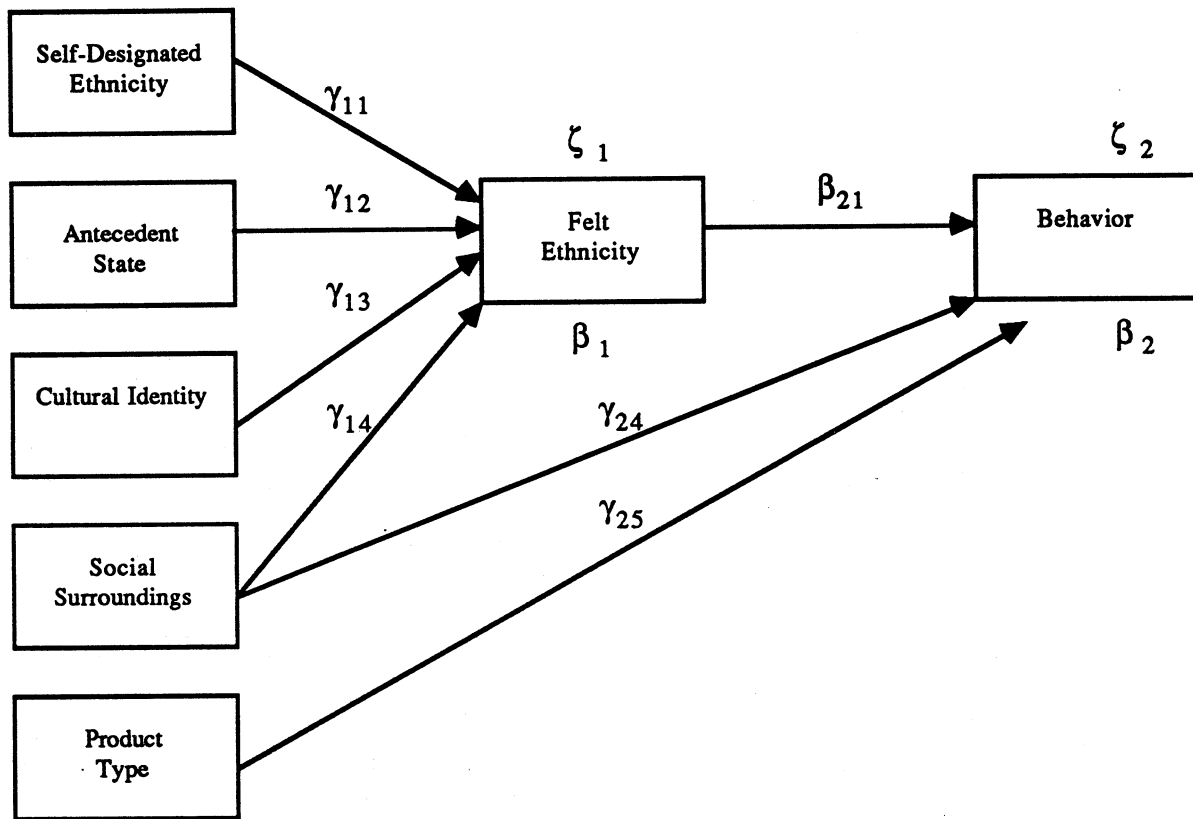
METHODS

Design

This study is a sub-study, using data collected in a 1989 Telephone Survey of Hispanics in the Los Angeles Metropolitan area, conducted for the *Los Angeles Times* newspaper. This researcher was a member of the team that conducted the study in July/August 1989. The researchers followed two criteria in drawing a stratified sample representative of the area: (1) random digit sample production of households in all zip codes which contained at least 20% Hispanic population; (2) Spanish surname random sampling in all zip codes with less than 20% Hispanic population; and (3) purposive sampling of Hispanics without telephones. A total of 1,733 Hispanic adults, including 165 in non-telephone households were interviewed in summer 1989. A total of 420 non-Hispanic interviews were conducted as comparative data, using a random digit sample. From this larger sample, the subsample for the present study was selected. A primary goal of the study was to develop a theory on the dynamics of ethnicity in a multi-cultural society and effects on consumer behavior. Thus, Hispanic subcultures were used as the subsample: Mexican-Americans, Mexicans, and Central Americans (N=1337).

Three survey instruments were developed: (1) English language; (2) Spanish language; and (3) non-Hispanic. The Spanish language questionnaire was concurrently developed with the English, and then back-translated to English to identify and resolve any problems with disequivalency of language.

FIGURE 2
Proposed Situational Ethnicity Model



Bilingual/bicultural interviewers conducted the interviews.

Measurement

The *Los Angeles Times* questionnaire contained a number of questions from which measures of the variables of the study were operationalized. The measures for the exogenous variables are as follows. Self-designated ethnicity was measured using the emic self-report method asking, "What is your ethnic background?" Antecedent state, as conceptualized by Stayman and Deshpande, is measure of "how ethnic one feels". Their assumption is that perception of discrimination would affect this state. For purposes of my analysis, the variable was measured on a 4-pt. scale of agree-disagree with the statement, "being too Hispanic gets you more problems than benefits." The new variable, cultural identity, was measured on a 4-pt. frequency scale in answer to the question: "Would you say you go to social gatherings with non-Hispanics?" (frequently, sometimes, seldom, never). The assumption underlying this measure is that Hispanics would frequent such gatherings as they assimilate. Thus, the stronger the assimilation score, the weaker the cultural identity. Social surroundings is a dichotomous variable measuring the presence of "change" in behavior from one type of social situation

to another. This operationalization is conceptually equivalent to the Stayman and Deshpande manipulation of social surroundings in their experimental design. The items from the *Los Angeles Times* survey used to measure this concept was: "What language do you use when you talk to your parents?" and "When you talk to your co-workers?"--only English, mostly English, both, mostly Spanish, only Spanish. A dummy variable was constructed of change, no change. Product type was also a measure of the presence of "change", using the dummy variable technique. The items chosen concerned the change in use of language in the context of two different product types--a media product (newspaper) and a banking product (loans).

Endogenous variables were measured in the following manner. Felt ethnicity was a measure of strength of ethnic identification. A 5-point scale of frequency of attendance at local Hispanic community festivals was used. The assumption was that strong ethnic identifiers would attend such festivals more frequently than weak ethnic identifiers. Behavior was a measure of a consumer choice between a Spanish-language newspaper and an English-language newspaper.

TABLE 1
Correlation Matrix

	Felt	Behav	Eth	Anth	CultID	SocID	Ptype
Felt	1.0						
Behav	.10	1.0					
Eth	-.01	-.10	1.0				
Anth	-.05	-.06	-.03	1.0			
CultID	.07	-.36	.07	-.01	1.0		
SocID	-.01	-.14	.08	.06	.11	1.0	
Ptype	.10	.23	-.02	-.11	.07	.19	1.0

Analysis

The original data file was used in the re-analysis of *The Los Angeles Times* survey data. Descriptive statistics and a correlation matrix were estimated using SYSTAT. The structural-equation parameters were estimated using the LISREL VII program. The correlation matrix (see Table 1) was input to the LISREL VII program. Each correlation coefficient is based on 1336 cases.

RESULTS

Macro Results

Hypothesis 3 tested the overall fit of the model. The data did not provide well-founded support for this hypothesis. The initial iteration produced a model with $X^2=245.37$, $df = 4$, $p = .000$. The large value of X^2 , relative to the degrees of freedom, indicates that the proposed model did not fit the data well. The difference between the observed correlation matrix and that resulting from the hypothesized model was statistically significant. The Goodness of Fit Index (GFI) was .953; however, the Adjusted Goodness of Fit (AGFI) was .674. The AGFI takes into account degrees of freedom; therefore, it is a more accurate indication of the fit of the model. This lower AGFI indicates a problem model. A better fit might have been found if LISREL had been used to test the interaction between social surroundings and felt ethnicity or behavior. As the model was specified, the test becomes one of situational change in behavior but not change "specific" to a particular situation.

Micro Level

Hypothesis 1 tested the proposition that behavior is a function of felt ethnicity, social surroundings and product type. The R^2 for this equation was .088. Much of the variance was left unexplained. In terms of the individual links, the maximum likelihood estimates were: .138 for the link between felt identity and behavior; -.191 for the link between social surroundings and behavior; and .266 for the link between product type and behavior. All of these were significant at the .01 level.

Hypothesis 2 tested the proposition that felt ethnicity is a function of self-designated ethnicity, antecedent state, social surroundings, and cultural identity. The R^2 for this equation was .036,

indicating that much variance is left unexplained. The maximum likelihood estimates were: -.034 for the link with ethnicity; -.040 for the link with antecedent state; .001 for the link with social surroundings; and .122 for the link with cultural identity. Of these only the link with cultural identity was significant at the .01 level. The total coefficient of determination for structural equations was .104, indicating the presence of much unexplained variance in the whole model.

Post-Hoc Analyses

The modification indices, presented in the LISREL VII printout, indicated that the model could be significantly improved with the addition of a link between cultural identity and behavior. This link makes theoretical sense because of anthropological studies which indicate that cultural identity transcends situational adjustments and in doing so gives common meaning, stability, and predictability to the individual's behavior (Fitzgerald, 1974). With this rationale, another iteration of the LISREL analysis was conducted. In this second iteration, all the previous links were left "as is."

Macro Results

The second iteration produced a model with $X^2=11.43$, $df = 3$, $p = .000$. The smaller value of X^2 indicated a much improved fit of the new model with the observed data. The GFI was .998, and the AGFI was .977. The close match between the GFI and the AGFI indicates a good fitting model. Another indication of an improved model is found in comparison of the root mean square residuals between the first and second LISREL iterations. An estimate under .05 is considered acceptable. The estimate for iteration #1 was .076; the estimate for iteration #2 was .016. This parameter supports the good fit of the post-hoc model.

It must be noted that the chi square statistic tends to be sensitive to sample size, implying that the low chi square estimate obtained may be an artifact of the large sample size ($N=1337$). To test the robustness of the chi square obtained, the post-hoc model was tested against a null model. The null model hypothesized no links among variables, and this model was run in LISREL. Using a chi square difference test, it was found that a X^2 of 297.80 with 8 degrees of freedom is significant. It appears more likely that the post-hoc model is a good fit of the data.

Micro Level

The R^2 for hypothesis 1 was .218; it was much improved. In terms of the individual links, the maximum likelihood estimates were: -.363 for cultural identity; -.14 for felt identity; -.154 for social surroundings; and .285 for product type. All of these were significant at the .01 level.

The R^2 for this equation was .024, which is slightly lower than the first iteration. The maximum likelihood estimates were: -.006 for the link with ethnicity; -.040 for the link with antecedent state; -.001 for the link with social surroundings; and .121 for the link with cultural identity. Again, only the link with cultural identity was significant at the .01 level. The total coefficient of determination for structural equations was improved to .229.

DISCUSSION

This study lends support to the growing body of research on the link between ethnicity and consumer behavior. Most importantly, this study supports the notion of ethnicity as a dynamic, complex concept. The new variable, cultural identity, proved to be a significant addition to the Stayman and Deshpande model. Figure 3 illustrates the post-hoc model and reports the LISREL VII estimates of the parameters in this model. The model, as estimated, supports the proposition that behavior is a function of felt ethnicity, cultural identity, social surroundings, and product type.

However, the proposition that felt ethnicity is a function of self-designated ethnicity, antecedent state, product type, social surroundings, and cultural identity is only weakly supported. There is good reason to believe that problems may lie in the operationalization of the variable, felt ethnicity. The diagnostic information contained in the LISREL VII printout indicates that the standardized residuals for this variable are problematic (i.e., larger than 2.48 for the links with behavior, cultural identity, and product type.) The present study relied on data collected for a different purpose; and thus, the researchers were constrained by limitations in the pre-existing items. For this reason, several leaps in logic were made in operationalizing the variables. For example, the measure of felt ethnicity was behavioral rather than perceptual. Social situation was measured as situational change in general, rather than as a specific change in the situation under which a particular behavior was performed. While the study suggests an improved model of the ethnicity and consumption relationship, the results are limited.

In examining the relationship between ethnicity and consumption, this study suggests that cultural identity may have a greater influence on behavior than felt ethnicity. In order to fully explore the implications of this finding, it is necessary to examine more closely the conceptual differences between a social identity and a cultural identity. As was mentioned previously, social identities are assumed to vary situationally, while cultural identities have been conceived as stable. Evidence has been mounting since the 1970s that the phenomenon of situational variance in ethnic identity exists.

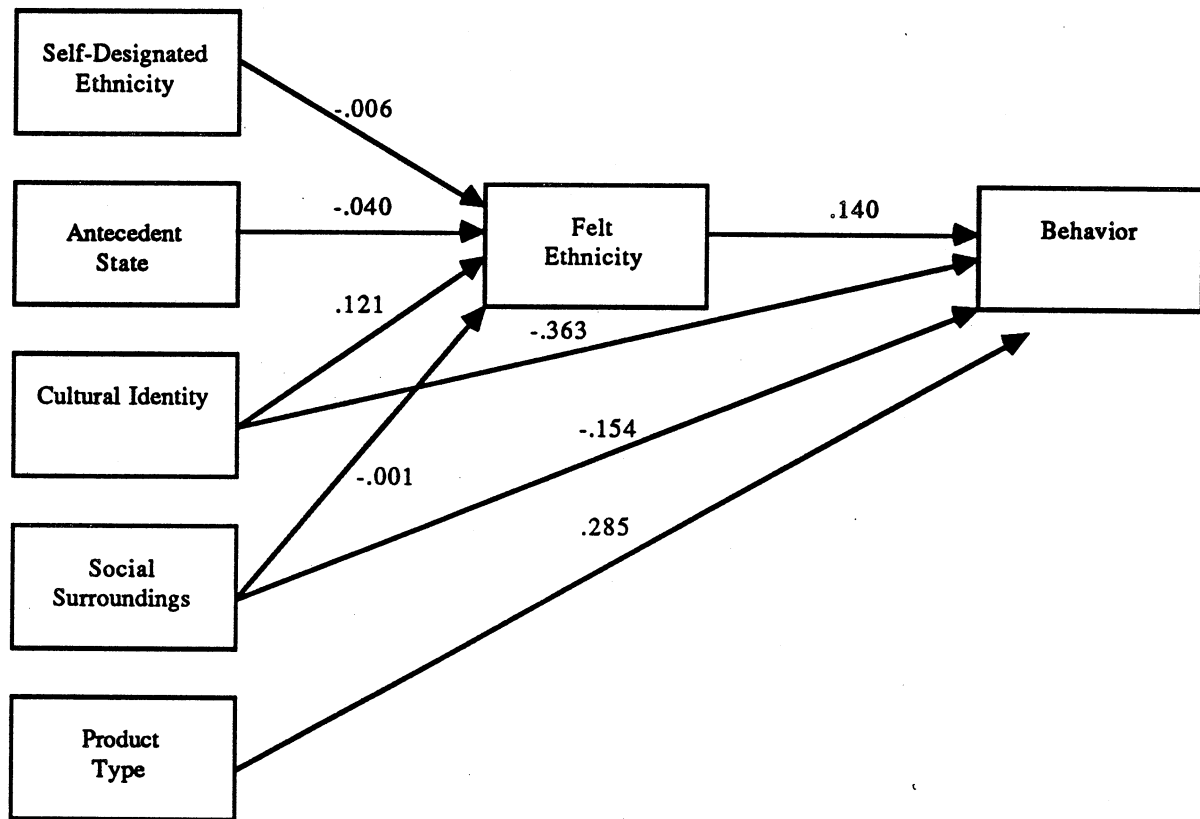
Theorists, such as Stein and Hill (1977), Gans (1979), and Padilla (1985), discuss the situational aspects of ethnicity as strategic or symbolic manipulations. According to Webster's Ninth New Collegiate Dictionary, situation can be defined as "relative position at a certain moment." When people shed, resurrect, or adopt ethnicity at certain moments only, it can be assumed that they do so out of "choice." If so, then race would act as a constraint on the range of choices. Therefore, Whites would enjoy a great deal of freedom in terms of situationally choosing ethnic identities; those defined in racial terms as "non-White" would enjoy much less freedom. Then in terms of situational ethnicities, the important research questions should be: how and why people choose a particular ethnic identity from a range of possible choices. The recognition of such questions has led to a recent increase of work investigating the conditions for choosing identities among White ethnics (Waters, 1990; Alba, 1990). It is suggested that further research investigate the differences in situational effect between Whites and non-Whites, with the hypothesis that situational effects will be stronger among Whites. As Coleman and Rainwater (1978) argue, Whites do not perceive ethnic discrimination to be a threat to their individual life chances, and their ethnic identity can be used at will and discarded when its psychological or social purpose is fulfilled.

This view that Whites are more likely to be "situational ethnics" should not be taken to mean that non-Whites do not exhibit situational variance in behavior. In fact, the present study documented the situational variance in language use among Hispanics. Bilingual Hispanics are likely to speak Spanish with their parents and English with their children. However, the range of possible choices for situational variance is much less among Hispanics than among Whites.

The more fundamental way in which ethnic identity influences consumption could be through cultural identity. Cultural identity is comprised of what people have inherited (e.g., race, origin, history, religion, language) and of what they have acquired (e.g., language, nationality) (Isaacs, 1975). As was mentioned previously, cultural identity could be the "stable" dimension of an individual's ethnic identity as it refers to one's basic group identity. Of importance, differences in consumption patterns have been evidenced by culture. In the U.S., for example, evidence exists that Hispanics are brand-loyal (Saegert, Hoover, Hilger, 1985; Segal and Sosa, 1983). While cultural identity does influence behavior, its strength of influence is dependent upon the importance attached to a particular identity. It is likely that the level of importance one attaches to a particular cultural identity will vary. Presumably, some individuals will attach a great deal of importance to that identity. For others, a cultural identity will be intermittently important, and still others will assume the label and little else.

Theory supports the notion that one's cultural identity is not stable but dynamic. Because what people acquire can be constantly new and changing, their cultural identity under certain conditions (e.g.,

FIGURE 3
Post-Hoc Situational Ethnicity Model



immigrant status) is dynamic — almost in a continuing state of becoming. Thus, the strength of influence of cultural identity on consumption behavior is dependent upon the level of importance placed on that cultural identity. For any given member of an ethnic group, the level could vary. For this reason, it is suggested that further research explore the varying strength of ethnic identification among individuals of a particular ethnic or minority group. In a follow-up study currently in progress, the researchers are testing the differential effects of a cultural identity on behavior on a large sample of Hispanics in three cities: New York, Miami, and Houston. The study was specifically designed to test the associations between cultural identity and behavior as well as the dynamic nature of culture identity given the process of assimilation. It uses a full LISREL model that combines both a measurement model and a theoretical model. Such information is useful to the prediction of consumer behavior which relies both on knowledge about individuals within a particular cultural context and on knowledge about individuals in their social relations.

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"All the World's a Stage": Drama and Consumer Research Introduction¹

Barbara B. Stern, Rutgers University

SESSION OBJECTIVE

The purpose of this session is to integrate various streams of research on *drama* in order to encourage synergy among a multiplicity of approaches. The session aims at facilitating better communication among diverse drama researchers in marketing, sales management, advertising, and promotion. By presenting diverse perspectives on drama in the context of consumer research, the session is designed to generate rich answers to the question, "How does drama affect consumer behavior?" Multiple approaches to a single question may help researchers ascertain *what* engenders consumer effects and *why* these effects occur. To this end, the goal of this session is to bring together researchers whose views may complement each other, conflict with each other, or simply go off in different directions, in order to stimulate lively interchange and a spurt of creative borrowing among all of those interested in the protean concept of drama.

MULTIPLE PERSPECTIVES

Drama is a broadly defined category, for recent practitioner and academic research affixes the label to products, sales encounters, advertisements, and people. The session presents researchers representing humanistic, sociological, and psychological perspectives who locate the phenomenon of drama in different places. The humanistic tradition (Stern) is represented by qualitatively-oriented research that adapts Aristotelian language and concepts to study drama in advertising text. The sociological approach (Grove and Fisk) examines drama in service experiences in order to understand marketplace exchanges. The psychological approach is twofold, including a theoretical consideration of consumer "performance" in the marketing theatre (Deighton) and an information-processing model of consumer empathy (Boller and Olson). To date, these varied descriptive, analytical, and empirical perspectives have operated independently of each other, thus forfeiting the opportunity for seeds sown in one area to blossom in another.

CONCEPTUAL AND METHODOLOGICAL ORIENTATION

On a *conceptual* level, the session includes a range of perspectives spanning both traditional and innovative schools of drama criticism. The participants present dramaturgical concepts ranging chronologically from Aristotle's works on Greek tragedy (Stern) to modern cinematic theory (Boller and Olson), and conceptually from Bruner's psychological concept of meaning (Deighton) to Goffman's dramaturgical view of social behavior (Grove and Fisk).

Stern's presentation, "*What's in a Name?*" *Aristotelian Criticism and Drama Research*, begins by introducing terminology and concepts drawn from the Aristotelian tradition, the well-spring of dramaturgy and the foundation for later theories. Her presentation introduces basic Aristotelian elements such as "plot," "character," and "theme" as terms whose meanings provide a groundwork for coherent discussion. Her purpose is to provide a generally accepted vocabulary for discussing drama to ensure that multiple participants in the dialogue mean the same thing when they use these terms.

Next, Grove and Fisk's paper, *The Service Experience as Theatre*, presents a modern theory of drama as a metaphor of human behavior in the service experience. They draw from Goffman's dramaturgical theory to examine the traditional aspects of drama -- actors, setting, and performance. Their purpose is to study the service experience as a performance by analyzing the relationship of service characteristics to their theatrical counterparts.

Deighton's presentation, *Sincerity, Sham, and Satisfaction in Marketplace Performance*, proposes consideration of two aspects of marketplace performance - the concepts of "quality" and of consumer satisfaction. He employs Bruner's theory of dramaturgics to address the paradox of consumer enjoyment of theatrical performance as authentic versus distrust of marketing performance as insincere. His purpose is to revise the model of consumer satisfaction by adding the element of satisfaction with performance.

Last, Boller and Olson's paper, *Empathy and Vicarious Performances of Meaning During Exposure to Commercial Dramas*, focuses on empathy as a consumer response to a dramatic advertisement. The paper defines empathy as a response to dramatic advertisements -- those that present a story about one or more characters' experience -- and examines empathy in terms of consumer identification with the characters. The purpose is to present a model of processing that focuses on empathy as the key to understanding the power of persuasion in drama advertising.

Wells's discussion adds practitioner/academic insights, for his research and practical experience permit a multi-faceted overview of the concepts presented by the panelists. He provides a summary of the session's eclectic view of drama research and an evaluation of drama concepts from the practitioner's point of view.

On a *methodological* level, the session represents a cross-section of multidisciplinary research by utilizing methods drawn from the humanities as well as from the social sciences. Stern uses humanities methodology adapted from literary criticism, and Boller and Olson borrow from cinematography to develop a model of consumer processing. Deighton turns to psychology and

¹This paper is the introduction to Special Session 6.4.

marketing science, and Grove and Fisk rely on social interaction theory to analyze drama as a performance/response phenomenon. In this way, the session encourages the free flow of communication among researchers unfettered by disciplinary boundaries so that knowledge generated in one field can become the property of all.

In sum, the session proposes that multiple perspectives on drama in products, personal sales, and promotion can shed light on its behavioral and attitudinal effects on consumers. Both managerial/advertising practitioners and academic researchers can benefit from greater understanding of the nature of drama and its unique ability to evoke consumer responses. To this end, the session's comprehensive outlook affords the ACR audience an opportunity to sample a variety of drama research products with one-stop shopping convenience.

"What's in a Name?": Aristotelian Criticism and Drama Research

Abstract¹

Barbara B. Stern, Rutgers University

One genre may generate another....Or one genre might supplant and replace another as the historically or situationally dominant form of "social metacommentary" (to use Geertz's illuminating term). New communicative techniques and media may make possible wholly unprecedented genres of cultural performance and thus new modes of self-understanding (Turner 1981, p. 155).

Advertising as a form of cultural performance (Levitt 1970; Schudson 1984; Spitzer 1962) has generic affiliations with the textual family known as *drama*, one of the three major genres of literature (the others are poetry and the novel). The term "drama" has come into widespread use to describe a variety of marketing, advertising, and consumer behavior phenomena, perhaps as a sign of the importance of "the drama of consumer satisfaction" in marketing strategy (Leiss, Kline, and Jhally 1986, p. 232). Since recent research on products, consumers, sales encounters, and advertisements uses "drama" to refer to things, people, and text, a problem arises in terms of what the concept means in varied research streams. Better communication among researchers might be facilitated by adoption of an accepted vocabulary for discussing drama, for at present no common set of definitions prevails. The purpose of this paper is to alleviate that situation by introducing a vocabulary based on terminology and concepts from Aristotle's *Poetics* (Fergusson 1961). Our aim is to disseminate a clear technical language so that researchers coming from different perspectives can be sure that they are discussing the same phenomena.

Because drama is an umbrella term for a large genre of works, it is first necessary to clarify the species to which researchers refer. Ordinarily, when advertisements are labeled "dramas," the reference is to the theatre of realism, rather than to the "theatre of the absurd" (but see Stern 1990). In this regard, advertising dramas have been termed "capitalist realist art" (Schudson 1984), "tractor realism" (Berman 1981), "slice of life" (Ogilvy 1985), and *cinema verité* (Rossiter 1987). Perhaps because the categorization of advertising as realistic drama rests on the assumption that everyone knows what drama is, some important pre-questions have gone unasked. These are, "What is an advertising drama?" "What are its component parts?" And, "How can we analyze or explicate (Stern 1989) the elements in individual advertisements?" These questions can be addressed by turning to Aristotelian criticism as the most accessible source of the technical vocabulary of drama. The concepts and definitions are familiar to anyone who has taken a

college English course, read a theatre review, or glanced through a playbill.

This paper begins to answer the definitional questions first by identifying the basic elements of drama and next by analyzing a sample advertisement as text. Since our purpose is limited to setting forth a language for conducting multidisciplinary research, we do not venture beyond the definitional issues that emerge in close examination of the stimulus. The link between dramatic stimuli and consumer responses is the province of the other presentations in the session, notably those of Boller and Olson and Deighton.

SIX ELEMENTS OF ADVERTISING: ARISTOTLE'S FRAMEWORK

Drama is the literary form designed for theatrical performance, in which actors take the roles of characters, characters perform the actions, and characters utter the written dialogue (Abrams 1988). It is composed of separate but connected elements, much as a product is composed of distinct but related attributes. Aristotle's framework defines drama in terms of six basic elements: plot, character, theme, diction (choice of words), "spectacle" (visual aspects such as settings, costume, make-up and hair-styles), and "music" (the sounds of words as well as songs/musical compositions). The terminology has been refined over the centuries to fit ever-changing notions of what constitutes theatrical performance, and adaptation of this vocabulary to advertisements represents but one more instance where one genre generates another (Turner 1981).

Plot

Most of what the critical tradition has handed down about plot comes from Aristotle's *Poetics* (Martin 1986), where its essence is identified as "imitation of action." "Imitation" refers to the art of "showing" characters in action that distinguishes dramatic performance from narrative "storytelling" (see Martin 1986; Wells 1989). "Action" refers to a series of related events (Brooks and Warren 1959) with a unified meaning, in that the arrangement of events (Fergusson 1961) answers the question, "what happened?" (Holman 1980).

A plot imposes order on the raw material of events (Frye 1973) by following a set of conventions (or rules) for their arrangement. In dramas, the purpose of the actions is to enable characters to display their personality traits, behavioral modes, and moral nature. Realistic plots imitate the action of life by following temporal chronological order -- they have a beginning, a middle, and an end. However, even realistic drama lends structure to life's shapelessness by arranging the incidents into a unified and meaningful whole. Plot progression involves both chronology and causation, for plots

¹This paper is an abstract of the presentation for Special Session 6.4.

provide not only a record of what happens, but also the reason why things happen.

Some key terms used to describe various aspects of the plot are conflict, complication, crisis, suspense, surprise, and solution. Many plots contain *conflict*, defined as an oppositional relationship between two characters or forces. A *complication* occurs when the conflict works itself out in one or more *crises*, often arousing *suspense* when there is uncertainty about what is going to happen (Abrams 1988). A *solution* is reached when the crisis is resolved, frequently by means of a *surprise* ending. In its negative sense, a surprise ending is one in which the author resolves the plot without adequate earlier grounds in characterization or action. The solution is manipulated by the introduction of a forced or improbable coincidence -- a *deus ex machina* or god descending on stage. In its positive sense, a surprise ending is realistic when it turns out, in retrospect, to have been grounded in what has gone before (Abrams 1988).

Character

Aristotle's second principle of drama is character, defined as the imaginary person(s) created by the author (Holman 1980) and presented in a dramatic work. Characters are endowed with moral, dispositional, and emotional qualities that are expressed in what they say (dialogue) and what they do (action). A character's personality is revealed by his/her words, deeds, and gestures; the words and deeds of others in relation to him/her; and the settings (Barnet 1985). The basis for speech and action that are rooted in a character's temperament, desires, and moral values constitute his/her *motivation*. The chief character in a work is called the *protagonist* (alternatively, the hero or heroine), and if s/he is pitted against an important opponent, that character is called the *antagonist* (Abrams 1988).

Theme

Theme describes the underlying idea of a text, its view of life, and its *gestalt* meaning (Barnet 1985). It refers to a general claim, or doctrine, whether implicit or asserted, which an imaginative work is designed to incorporate and to make persuasive to the reader (Barnet 1985). It is, in brief, what a drama is about.

Diction

Dramatic language or diction includes everything that the words mean, encompassing not only denotation (literal dictionary definitions) and connotation (associations and imagery), but also grammatical structure, length, and complexity of syntax. The language of drama is no longer considered limited to dialogue (Esslin 1969), for it also refers to deeds, facial expressions, and body movement associated with a stage performance (Barnet 1985).

Setting

This is the composite bundle of indicators that signify place and circumstances: the physical background described or shown, consisting of

geographical location, occupation and lifestyle of characters, time of action, and general socio-economic environment (Barnet 1985; Holman 1980). The setting of a dramatic work includes everything about the locale -- the historical time, physical surroundings, and social circumstances -- of the action. It denotes the visible or picturable items on stage in a theatrical production, also called *décor* or *mise en scène*, terms denoting the scenery and the properties or movable objects ("props"). Nearly everything on stage falls under the rubric of setting, for the purpose of *visibilia* is to reveal character. Setting also includes the positions of actors in a scene (Abrams 1988), because their entrances, exits, and on-stage movements occur in relation to scenery, props, and costumes.

Music

Music refers to the sound of words -- the rhythm and rhyme patterns as well as to the songs and/or musical compositions incorporated in a performance. Its importance in advertising lies in its connection to the *chorus*, a group of characters in classical drama who sang or chanted verse and engaged in dancelike movements. As drama evolved, it abandoned music and dance, and the choral group developed into a single choral character who served as the author's spokesperson. The "choral character" now refers to any character within the play itself who stands apart from the action and by his/her comments provides the spectators with a perspective for viewing the characters in action (Abrams 1988). This character may also represent the author, a communal point of view, or the perspective of group norms, since his/her function is to provide the point of reference by which the audience can judge the play.

While music in its own right (Scott 1990) serves rhetorical purposes in advertising, the modern manifestation of a choral character represents an important link between advertising drama and its classical antecedents. In classical drama, direct authorial commentary was considered intrusive and amateurish -- Aristotle evaluated an author's skill in terms of his ability to present action without resorting to explanatory comments. However, in advertising drama, some narration is considered necessary (see Deighton, Romer, and McQueen 1989; Stern 1991) to direct attention to the sponsor's message. In this regard, the choral character may be viewed as an ancestor of the advertising announcer, for just as the chorus emphasized the author's point of view, so too does the announcer emphasize the sponsor's point of view. The need to ensure audience comprehension by guiding attention to the intended meaning suggests that interpolation of commentary into modern commercial messages resembles earlier instances of the hybridization of narrative and dramatic techniques.

The tradition of a choral character seems to underlie advertising's blend of show and tell, for few examples of dramas that "show" all but "tell" nothing can be found (Stern 1991). Rather, advertisements more often begin with "a word from the sponsor" and end with a sponsorial reminder to purchase the product (the action close). In sum, while we can define the

basic elements in drama by turning to Aristotelian concepts, we can expect advertising to tailor genre conventions to suit its own needs. The genre has historically been flexible enough to move in multiple directions, and the value of learning its lineage and its language lies in increased awareness of the longevity and power of dramatic art. Jameson's comment (1975, p. 157) reinforces our view of commercial drama as a new tributary of an ancient stream:

So generic affiliations and the systematic deviation from them, provide clues which lead us back to the concrete historical situation of the individual text itself, and allows us to read its structure as ideology, as a socially symbolic act, as a prototypical response to a historical dilemma.

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The Service Experience as Theater

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INTRODUCTION

The increased interest in services marketing during the past decade reflects a growing appreciation of the role services play in the economies of the United States and the world. Nearly 70 percent of the Gross National Product of the United States and other industrial nations can be traced to services (Lovelock 1991), while up to three-quarters of those employed in some countries labor in service sector occupations (Bateson 1989).

Scholars and researchers have given significant attention to how the marketing of services differs from the marketing of goods (Berry 1980; Sasser 1976; Zeithaml, Berry and Parasuraman 1985; etc.). One key characteristic that distinguishes services marketing is the simultaneity of production and consumption of the service product (Bateson 1989; Berry 1980; Zeithaml, Berry and Parasuraman 1985). Services exist only in the time in which they are rendered and are living processes that cannot be disassembled (Shostack and Kingman-Brundage 1991, p. 243). Essentially, services are fashioned from the interaction between service providers and customers and, as such, service quality is comprised of both process and outcome dimensions (Grönroos 1982; Parasuraman, Zeithaml and Berry 1985; Sasser, Olsen and Wyckoff 1978). These various aspects of service delivery underscore the notion that services are complex, behavioral phenomena that can be quite difficult to understand or describe. A review of the services marketing literature compiled by Fisk, Tansuhaj and Crosby (1988) reveals that less than fifteen percent of the total service literature to attempt to conceptualize the service experience. In short, conceptual frameworks are needed (Bowen 1990; Upah, Berry and Shostack 1983; Lovelock 1991) that demonstrate common characteristics of services, capture the processual nature of services, and address the "descriptive language problems" (Shostack 1984) plaguing the services literature.

In an effort to satisfy this need for conceptual frameworks, the discussion that follows posits a general framework for services marketing based upon the metaphor of behavior as drama. The underpinnings of the drama metaphor are presented, along with several key concepts that it offers for the description of services marketing. The service experience as theater is further developed and implications ensuing from the framework are given. Finally, some research issues are examined and concluding comments are given.

BEHAVIOR AS DRAMA

The metaphorical depiction of behavior as drama is the basis for a distinct model of human interaction that offers insights most forcefully when examining face-to-face interactions among individuals (Brissett and Edgley 1990). As such, it is particularly relevant as a means to describe service encounters. As

a sociological school of thought born from the symbolic interactionist paradigm, the behavior as drama metaphor has generated wide attention. Writers such as Kenneth Burke (1945, 1950, 1968), Erving Goffman (1959, 1967, 1974) and R.S. Perinbanayagam (1974, 1982, 1985), have contributed much to the development of the dramaturgical perspective. Underlying their observations is the tacit understanding that people are symbol users who interact with each other based upon the meanings they assign to the sundry elements present at any behavioral setting. Dramaturgy, then, is greatly concerned with the broad issue of communication, both discursive (speech and language) and nondiscursive (gestures, clothing, and other objects), and the connection between the two (Brissett and Edgley 1990). Definitions of reality emerge as action occurs and those present strive to make sense of behavior situations. Social reality, then, is not simply like drama, it is drama in so far as it is a discourse involving articulation, definition and interaction (Perinbanayagam 1974, p. 533).

The application of the drama metaphor to behavior is probably best represented in the scholarly efforts of Goffman (1959, 1967, 1974), and most readily in his work, *The Presentation of Self in Everyday Life*. Goffman describes social behavior as theatrical "performances" in which "actors" present themselves and their actions in such a manner as to fashion desired "impressions" before an "audience." During interaction actors continually adjust the expressions which they "give" and "give off" in the context of a "front region." To a large extent, the success of the actors' front region performance (i.e., how believable, sincere and/or authentic it appears) is enhanced by rehearsal in "back regions," away from audience's view. Here critical aspects of actors' presentations are planned and practiced to arrive at a general coherence among the dramaturgical elements necessary to staging a believable performance. Through it all, however, is the realization that performances are fragile processes that are easily undermined by the most minor of mishaps.

The role of the audience in developing and maintaining a definition of an interactive situation cannot be ignored. The audience's evolving expectations and continuous communication (verbal and nonverbal) of its responses to a performance as it unfolds provide the actors with needed information to guide their behavior toward a desired outcome. While the meanings and interpretations that an audience assigns to a behavioral encounter may be partially a function of previous learning, their validation occurs during or following the interaction. In other words, meanings are not absolute or static characteristics of the world, but are the result of a continuous social process (Burke 1945). Further, it is important to note that this negotiation of a definition of the situation occurs, whether or not it is by design, since all

behavior is ostensibly expressive in nature (Zicklin 1968). Actors may vary with respect to their awareness of the dramaturgical character of behavior; being aware simply enables one to transform the impression formation character of his/her behavior to impression management (Miller 1984).

The metaphor that behavior is drama and the various principles that it engenders provide a framework for describing, understanding, and communicating about services experiences. Based upon the metaphor and, to a significant degree, some of Goffman's (1959) observations, we develop a view of services experiences that unifies and extends beyond much of the extant services principles. In essence, our contention is that services themselves are drama and may be understood as theatrical performances.

SERVICES AS THEATER

The nature of services marketing and the proposition that behavior is drama share several parallel characteristics. Both are concerned with the tactics and strategies employed by people to create and sustain desirable impressions before an audience. Both, also, suggest that one way to achieve this is by careful and prudent management of the actors' expressive behavior and the physical setting in which it occurs. Reflecting observations of services scholars, Goffman (1959) notes that in their performance "... service personnel ... enliven their manner with movements which express proficiency and integrity .. to establish a favorable definition of their services or product" (p. 77). Clearly, Goffman recognized that services issues are resplendent with dramatic character.

Many of the drama concepts and principles may be used to capture the service experience. Among those most central to services understanding are actors/audience, setting and performance.

Actors/Audience

Similar to a theatrical production whose success relies upon the acumen of those on stage, the quality of one's service experience is largely affected by the service's contact personnel. The service's actors, the performers of the service, are often perceived by their audience, the customers, as the service itself (Grönroos 1985). Their appearance and their actions are central to the audience's service experience. Consequently, just as theatrical performers must commit themselves to a plethora of considerations to stage a believable performance, the service "actors" must subscribe to a variety of concerns to foster a desired impression before their audience. Among these are the actors' manner and appearance, (their "personal front" in Goffman's (1959) terminology), their ability to enact their service role properly, and their overall dedication to the service performance.

One's dress, grooming and demeanor impart an attitude, mood and/or identity to others (Solomon 1985) and can add tangibility to a service (Berry 1980). The actors' skill may be reflected in their knowledge, courtesy, competence and communication

abilities, each of which represents an aspect of service quality (Parasuraman, Zeithaml, and Berry 1985). Diligence in learning and performing one's service roles contributes quality to the consuming audience's overall impression of service excellence (Shostack 1977; Zeithaml, Parasuraman, and Berry 1985). The actor's commitment to a service production is likely to be at least partially a function of a service organization's internal marketing effort (Grönroos 1985; Sasser and Arbeit 1978) that is designed to impart a consumer orientation. The various dimension of the actors' service performance are most critical in service encounters that rely on a high degree of personal contact with the customer, such as restaurants, hospitals, cruises, etc., or that are characterized by repeated contact, such as banks, the postal service, etc. Among these industries there exists the opportunity to create a competitive advantage through service actors, a notion discussed by Berry, Parasuraman, and Zeithaml (1988) as the "people factor."

Of course, it is impossible to discuss actors' performance without implicitly or explicitly considering the audience. The audience plays a critical role in the determination of a service production across many diverse services. In many services, the audience (customer) must be present for the service to occur (e.g. hairstyling, air travel, etc.). This is a circumstance recognized by services scholars as inseparability of production and consumption (Berry 1980; Lovelock 1981, 1983; Shostack 1977). In short, the person receiving a service or other audience members present at the service encounter may affect the quality of the service's delivery and/or outcome (Booms and Bitner 1981; Lovelock 1983; Parasuraman, Zeithaml and Berry 1988; Pranter and Martin 1991). A customer's unwillingness to cooperate in a service production or inappropriate, disruptive behavior on the part of other customers sharing a service experience can destroy a service performance.

Similar to the audience of a theatrical production (that has a measure of responsibility to ensure that a satisfying performance is staged by adhering to certain standards of behavior), the customers of a service are also obliged to embrace various behavioral rules. Among these are expectations that the customers will refrain from disrupting others' service experiences, learn how they can aid the actors in producing a satisfying show (e.g., provide service personnel with the necessary information to perform their responsibilities properly) and be tolerant of slight imperfections in the service production to preserve the sanctity of the overall performance. These considerations are particularly important in high contact services, in self-service operations whose outcome is so reliant on the audiences' participation (Lovelock and Young 1979), and in services that demand a high degree of customization (e.g., physician services).

Setting

Another key component in the depiction of services as theater is the physical setting in which the

service is delivered. As in the staging of a theatrical production (that uses scenery, lighting, props, and other physical cues to influence the audience's perceptions), a service's "setting can play an enormous role" in affecting consumers' impressions of a service (Shostack 1977, p. 78). The various features of a services setting combine to help define and facilitate the service exchange (Baker 1987; Booms and Bitner 1982; Zeithaml, Parasuraman and Berry 1985) and provide evidence and tangible cues of its reality. As in theater, by manipulating and/or mixing the elements of the physical setting in different ways, the audience's perceptions of the service can be changed or variously rearranged. Consider the perceptual differences created by different settings found at a Motel 6 versus a Hyatt Regency Hotel or at a Denny's restaurant versus a Bennigan's restaurant.

The setting plays an important role in positioning a service organization and attracting a specific clientele (Booms and Bitner 1982). Further, it can be used to inform new customers as to the nature of a service (e.g. upscale or mass appeal) or aspects of the service delivery (e.g. full service or self-service).

Performance

Performance is the set of activities that occur before an audience. Likening the process of service delivery to a theatrical performance seems a reasonable proposition given the role that the setting, actors and audience play in both. The service performance, like its theatrical counterpart, relies upon the of many elements: (1) those operating in the back region who support the front stage "show"; (2) the management of the front region's setting; (3) the actors' commitment to the importance of sustaining a believable performance; and (4) the coordination of the overall effort among the various cast members.

The importance of region behavior is based upon Goffman's (1959) observation that a perceptual barrier bounds a front area where a performance occurs and a back area where actors may act out of character, rehearse their routines and plan the front stage action. Behavior in the front region is devised to meet an audience's approval, while behavior in the back region is normally not open to the audience's inspection. In fact, in most service designs, it is imperative to keep the two regions separate so as to avoid compromising the credibility of the performance. The audience is not normally granted access to back regions of restaurants (kitchen area), auto repair (the garage itself), hospitals (doctors and staff lounges), etc. Nevertheless, much of what contributes to a satisfying front stage performance occurs in the back area.

One function that often takes place back stage is the management of the physical setting. The control of the front region's atmospherics, (e.g., lighting, temperature), the coordination of the physical evidence with the actors' service (e.g., ensuring the props, equipment, and other tangible cues are available, maintained and properly expressive) and the overall service design are part of the back region activity. A physical setting breakdown may profoundly damage the audience's perception of the service performance.

Another component of performance is the actors' overall commitment to the show, as evidenced by their adherence to various "defense practices" (Goffman 1959). Involved here are service workers' subscriptions to dramaturgical loyalty (acceptance of a moral-like responsibility to sustain a believable performance), discipline (commitment to learning one's part and avoiding gestures or mistakes that might compromise the performance) and circumspection (determination in advance of how best to stage the show). These considerations collectively comprise the foundation of service workers' ability to project a performance which the audience finds satisfying. Whether contact personnel in restaurants, hospitals, professional offices, airlines, hotels, or other such services, their performance is enhanced through internalization and adherence to these dramaturgical principles.

The success of a service performance, like that of a theatrical production, requires that all involved cooperate as team members to stage the performance. A single actor in the front region or support personnel in the back can undermine the overall effort simply by failing to sustain vigilance during the show. The audience's perception of service quality is a fragile phenomenon that is easily affected. Consequently, service workers must share a common respect for the importance of the performance.

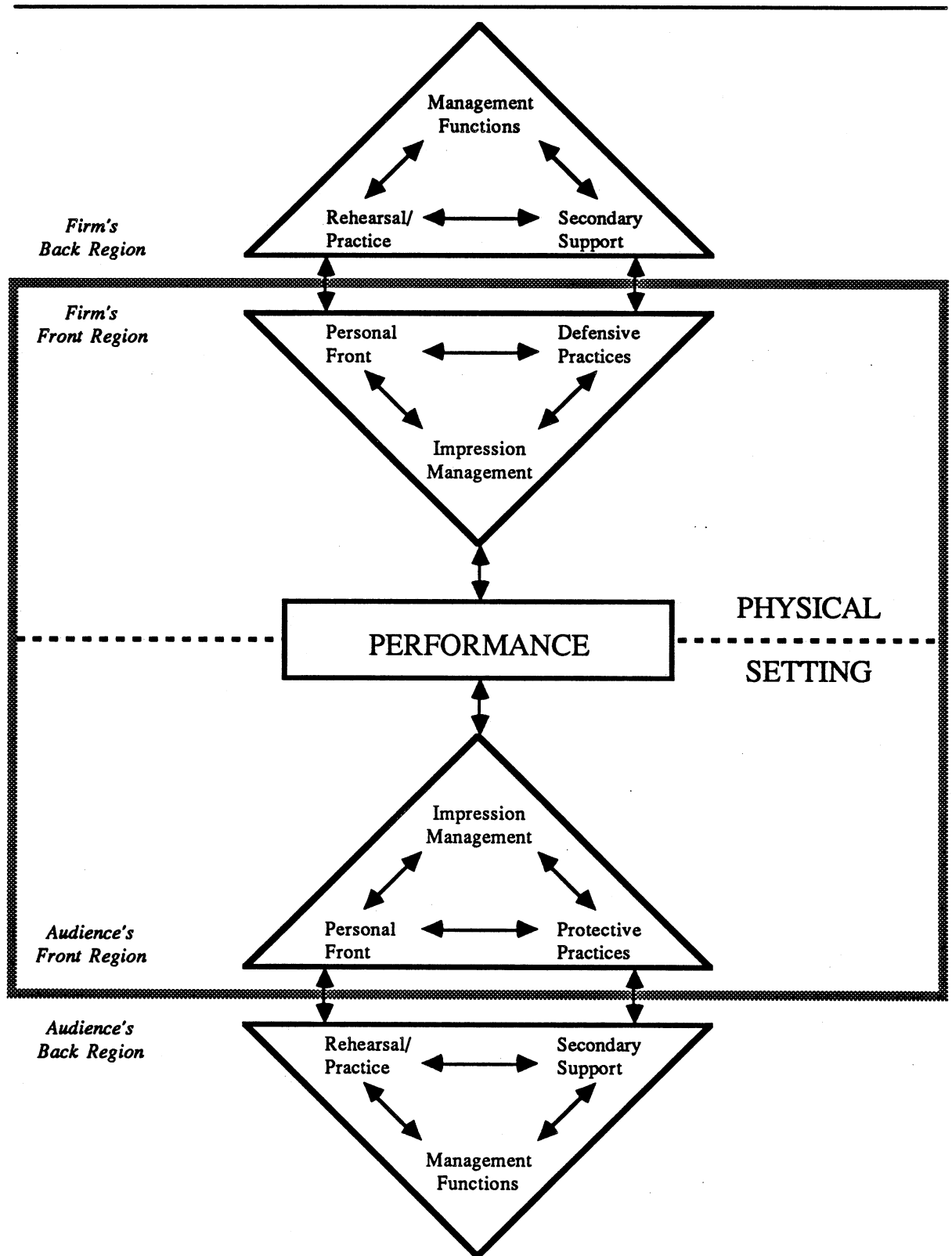
MODELING THE SERVICE EXPERIENCE AS THEATER

Figure 1 conceptually models the service experience as theater. At the heart of every service experience is the performance. Both the firm and the audience share in the creation and continuance of the performance. Surrounding the performance is the physical setting. Typically, the physical setting is owned or controlled by the firm. However, if a service is delivered to people's homes, then the physical setting is owned or controlled by the audience member.

The "physical setting" of the firm includes the furniture, decor, and atmospherics in the front region of the service theater. Most service organizations are sensitive to the influence the physical setting of their service theater may have on the audience. The architecture of a service firm's building conveys first impressions to customers. A well-chosen architectural design can make the service organization much more approachable (Donovan and Rossiter 1982). The internal furnishings and decor of the service theater are especially important influences on consumers. For example, the Olive Garden restaurant chain follows through on its name by decorating with large quantities of living plants to make its restaurants garden-like.

Surrounding both the performance and the physical setting is the front region. This includes both the firm's front region and audience's front region, which overlap. In the "front region," the performance is given in "public" and is open to the audience's inspection. Behaviors in the front region must meet the approval of the audience. Of course, the firm and the audience each have a back region.

FIGURE 1
The Service Experience as Theater



Normally, the back region and front regions are kept quite separate. In the model, arrows are shown connecting the front and back regions to highlight the fact that information, people and things must pass between the two regions. Audiences that are allowed access to the back region of the firm may witness behavior inappropriate for the front region (cursing, slovenly demeanor, complaining, and other "out of character" activity). To prevent mishaps, the corridor between the front and back regions is routinely closed to the audience. Further elaboration on the model in Figure 1 will be structured around the front and back regions.

The Firm's Front Region

The firm's front region is a complicated mixture of personal front, defensive practices and impression management. The "personal front" concerns the appearance and behavior of those representing the firm. All customer contact personnel present a personal front to the audience. A major part of the training given service employees concerns teaching them to successfully convey the proper personal front. In some service organizations, this is little more than smile training. In others, extensive training is provided. Walt Disney Co. puts new employees through Disney University to indoctrinate them in guest relation procedures. New Disney employees are also taught the "Disney Look," which includes specified make-up colors for women and the absence of facial hair for men.

"Impression management" relies upon the actors' adherence to the "defensive practices" of loyalty, discipline, and circumspection (Goffman 1959, pp. 212-218). In terms of loyalty, the service actor learns to avoid any behaviors that might destroy the impression for the audience. Discipline concerns actors' learning their parts thoroughly and avoiding unwittingly committing gestures or mistakes, which are potentially disruptive to the desired impression. Discipline includes keeping one's personal problems away from the front regions and exercising self-control in difficult situations.

The Firm's Back Region

The firm's back region exists to facilitate the firm's front region. Many back region activities are indispensable to a successful service production but are not, by their nature, appropriate for front region observation (e.g., rehearsal of routines, attention to defensive practices, etc.). In the back region, actors often drop their "personal front" and step out of character. Also, service performers may use the backstage to memorize their scripts or rehearse their parts.

A well-staged performance depends upon the ability of secondary support staff to provide the correct inputs. Secondary support can include a technological dimension. For example, restaurants must depend on the proper operation in the back region of ovens, stoves, food preparation appliances, and dish washing machines. Also, much like a theater, most service management functions occur behind the

scenes. The traditional management functions of planning, organizing, staffing, directing and control occur in the back region.

The Audience's Front Region

Like the firm, the audience's front region is a complicated mixture of personal front, protective practices and impression management. The "personal front" concerns the appearance and behavior of the audience members. The issue of how to behave in public (i. e., on stage) is quite significant to consumers. Every consumer has personal anxieties concerning the potential embarrassment of inappropriate public behavior. A major part of the consumer training given to children by their parents concerns teaching them to successfully convey the proper personal front in public settings.

Consumers learn through experience that some service organizations expect their audience to arrive bathed, shaved, coiffed and dressed in formal style. Such expectations are common for gourmet restaurants, the opera, a courtroom appearance, or a college graduation. Other service organizations are less rigid in their expectations. A consumer entering a convenience store is often greeted with a sign at the door saying "No Shirt, No Shoes, No Service."

"Impression management" as practiced by the audience relies upon "protective practices." Protective practices are the audience's efforts to overlook occasional miscues or problems with the performance in the interest of preserving the impression fostered by the actors. While there are limits to the customers' willingness to protect a performance, quite often one may overlook a dirty utensil or a slight billing error in order to allow the "show to go on." Challenging such minor errors may create a major disturbance and affect the delicate balance of the interaction. Therefore, there is a implied understanding or expectation that the audience should endeavor to allow the actors and their performance some measure of latitude.

Also, to a limited degree, it may be said that the audience engages in "defensive practices" on its own behalf. Loyalty means that they avoid behaviors that convey negative impressions about themselves or their companions. For example, a married couple seeking a home improvement loan from a bank would seek to convince the loan officer that they were both good money managers. Discipline refers to the actors' obligation to learn their parts thoroughly and avoid committing mistakes, which are potentially disruptive to the desired impression. The couple that has a fight in a restaurant or the child who throws a temper tantrum in the grocery store disrupts the performance for other audience members.

The Audiences's Back Region

The home is the audience's back region. It is a place of refuge from public performances. At home, consumers may dress and act according to their own rules. Consumers are known to go to great lengths to protect the privacy of their back regions. This may include unlisted telephone numbers, the use of

answering machines, and the creation of "rules" as to when the person can be contacted at home.

At home, consumers mentally rehearse their parts in planned service experience. This might include reviewing what to tell a physician about the symptoms of one's illness or what to tell a travel agent about one's vacation travel needs. The home is also a source of secondary support, though usually done by the consumers. These activities would include wardrobe maintenance and personal grooming. Secondary support would also include maintenance of a car for transportation to the service theater. Further, the consumer must manage the back region, which includes planning future service needs and budgeting for service expenditures.

RESEARCH IMPLICATIONS OF THE SERVICE EXPERIENCE AS THEATER

The experiential nature of services suggests that the service experience as theater may be effectively researched with observational research techniques that capture the processual and subjective nature of the service product (Grove and Fisk 1991). One promising observational method is participant observation (Grove 1986; Hirschman 1986). In participant observation, information about the effectiveness of various drama devices (actors' personal fronts, the physical setting, defensive practices, etc.) for creating and maintaining a desired impression may be gathered by observers who participate in the service encounter. Participant observation is a technique well-suited to dramaturgical analysis (Meltzer, Petras and Reynolds 1978). In addition, participant observation has been employed via "secret shopper" programs to investigate the service delivery of several organizations. For example, Walt Disney Co. routinely hires professionals to shop its parks and rate its stores, amusements, personnel, etc., all under a condition of concealment to protect against "unnatural" respondent behavior (Meister 1990).

The Critical Incident Technique (Flanagan 1954) is a promising observational technique for studying the service experience as theater. The Critical Incident Technique uses in-depth interviews with customers to assess specific instances of services experiences that were especially satisfying or especially dissatisfying. A recent study of airline, hotel and restaurant services resulted in an extensive classification of critical incidents that affect customer satisfaction/dissatisfaction (Bitner, Booms and Nyquist 1990). Similar critical incident studies could focus on the actors, audience, setting and performance as sources of satisfaction or dissatisfaction.

Other qualitative and/or unobtrusive data gathering methods might prove valuable for investigating the services experience as theater. Focus group research, case studies and non-directive interviews represent additional means for studying drama aspects of the service experience.

CONCLUSION

In depicting the service experience as theater, we have assumed that the sociological concepts of

dramaturgy can be fully applied to services. This assumption is a mild one. Dramaturgists claim that all human interactions can be assessed from a dramaturgical framework.

The service experience as theater framework captures many of the experiential dimensions of a service. From the marketer's perspective, attention to the dramaturgical details of a service exchange may enable the marketer to deliver consistently higher levels of consumer satisfaction. From the consumer researcher's perspective, the service experience as theater offers a novel perspective for describing and analyzing consumer service experiences.

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Sincerity, Sham and Satisfaction in Marketplace Performance

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"... the giant swarm of poor moths and gnats, rushing silently and madly into the enticing flame! What unanimity in agreeing to let oneself be deceived! Here quite clearly there is in operation a general human need, implanted by God Himself in human nature ... an indispensable device in life's economy."
Confessions of Felix Krull: Confidence Man
Thomas Mann

This talk explored the implications of the idea that fraud is marketing at its most artful and consumer judgment at its most inept. It contended that the mechanics of a successful fraud should show us the points at which consumers make errors in processing evidence and the methods by which these errors can be magnified. A confidence trick, or con, was identified as the most revealing form of fraud for this purpose.

THE DRAMATIC STRUCTURE OF A CON

The structure of a con maps well into the language of dramaturgy: roles, setting, plot, script and so on (Brissett and Edgley 1990, Leff 1976, Nettler 1982).

Four roles are common to most scams. The *mark* is the victim, selected on the basis of some psychic susceptibility to the appeal, much as a marketing prospect is psychographically profiled. The *roper* is the prospector who seeks out, or 'bird dogs' the victim. The scam depends on the mark's confidence in the roper, so the characters and interests of mark and roper are similar. In some scams the roper works alone, but in many there is a confederate, or *inside man*. Finally there is the character, usually offstage for the entire drama, who is the source of the *bundle* or fictitious payoff.

A prop common to many con stories is the *poke*. This is a reward received by the mark as bait to increase the probability of the *score* or ultimate act of defrauding. Poke and bundle are usually in the same currency, often money but in some cases affection, respect or affiliation.

The objective of the perpetrator of a con (and indeed of the initiator of any transaction) is to convince the mark that playing his or her part in the transaction will bring returns greater than the value of what is given up. To make this belief credible, a *spiel* or plot is needed that asserts mutual gains from trade between the mark and the roper.

SOME PARTICULAR PLOTS IN THE GENRE

The bald structure of a con as just outlined is not the source of its interest, any more than the fascination of generations with Romeo and Juliet could be attributed to its 'boy meets girl' structure. The phenomenon of interest is the tensions and resolutions in a particular plot.

One particular plot is the *pigeon drop* plot (McCormack 1976). In the preamble to this solution the roper selects a mark and arranges for the mark to find a 'lost' wallet or notebook or diary. This item discloses that a third person, the inside man, is engaged in a very profitable illegal enterprise, for example the fixing of gambles in a syndicate. Roper and mark return the article, and in gratitude the inside man invites them to participate in a round of his enterprise. In this way the mark is compromised, and receives the poke in the form of a small win.

The score then follows. The inside man announces that he wants to exit the syndicate. He would like to make a last, very large, win, but to place the bet would tip off the syndicate to his intentions. So the mark is invited to conduct the last transaction, pooling his money with that of the inside man and sharing the winnings. The drama ends and the mark emerges into reality when the inside man defects with the stake.

The *Ponzi* is a variation of the structure. The roper tells the mark that he will give extraordinary returns on any investment. The mark tries a small investment, and receives back a large fraction of the stake (the poke). The mark tries larger stakes, and lets on to others that they can do the same. When the roper is satisfied with the size of the potential score, he defects. This plot, once started, becomes self-sustaining. The challenge is to start it.

Charles Ponzi started it in Boston in 1920 by saying that, in the aftermath of the First World War, several European currencies were trading at rates far below the rate at which the US Postal Service would exchange their International Postal Reply Coupons into dollars. His scheme, he said, was to use dollars to buy the foreign currencies, then buy the Coupons, remit them to Boston and sell them for dollars. He advertised in Boston newspapers that he would give fifty percent interest on ninety day unsecured deposits to raise the capital to run the scheme. While his statement about exchange rates was correct at the time of the first announcements, he in fact never purchased any coupons. Investors sent him \$15 million within months from which he returned them their interest. The scale of the response took Ponzi by surprise and he was arrested before he could score.

The consumer's qualm in a Ponzi scheme is not why he or she is being offered the deal. The deal is advertised to anyone smart enough to see its merit. So the issue is whether the deal is as good as it seems. Ponzi constructed a story good enough to pass this test. As the story came under public scrutiny, however, experts hastened to explain its defects. The story's fictional quality became clear, in every respect except the payment of interest, which was quite real. Consumers then faced the question of whether to continue to act in a fictional drama paying them real money. The choice amounted to calculating whether the fiction could go another round, and the consumer's

analysis of this question was clouded by the desirability of the answer being yes.

The *Trinity Church* con, which took place in lower Manhattan in the 1920's, cast the mark as entitled to the bundle by birth. Willis Gridley identified thousands of descendants of one Anneke Bogardus, whose children had sold the church in 1705. He approached them with a spiel that asserted that there had been an error in the conveyancing, so that each was heir to a share in the property. His drama involved no poke, yet three thousand of the descendants paid him \$50 each to press the claim.

Nettler, Gwynn (1982) *Lying, Cheating, Stealing*. Cincinnati: Anderson Publishing Company.

MARKETER-CONSUMER INTERACTION

When an interaction between marketer and consumer is compared to the interaction between roper and mark in a confidence trick, three crucial similarities appear.

1. *Enticement*. The marketer allows the consumer to glimpse a vision of the desired end state of product use. Just as the con depends on the pull of the bundle, so consumer action is driven by the enticing sense of a future with the product.

2. *Scripted Action*. The marketer contrives a role for the consumer to play which is well-defined and leads plausibly to the bundle. Levi's 401 Jeans work hard to coach consumers on how to walk, how to talk, how to be and where to be in their jeans. American Airlines tell business executives how they will have to act if they want to earn the right to be 'something special in the air.' Ed Debevec's restaurant employs gum-snapping, brassy waitresses to paint patrons into the roles that will ensure that they will feel they are having a good time.

3. *Confirming Experiences*. Corresponding to a poke in a con, a satisfying consumption experience contains a steady stream of small rewards that convince the consumer that he or she is on track toward the glimpsed vision of ultimate satisfaction. As we have argued elsewhere (Deighton 1984), marketers are more tempters than adversarial debaters. Their claims easily find partial confirmation in a consumer's experiences.

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Feminist Theory and Marketing Thought: Toward A New Approach for Consumer Research

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ABSTRACT

This paper looks at the effect of feminist theory on the conceptualization of marketing thought. Specifically, it examines the effect of feminist theory on the formulation of research in marketing generally and consumer behavior in particular. Finally, it discusses implications of feminist theory for the marketing paradigm.

INTRODUCTION

Over the past fifteen years, feminist scholarship has had a significant impact on a number of disciplines, including anthropology, literature, psychology, sociology and history (see Langland and Gove 1981; DuBois et al. 1987). This scholarship argues that hidden assumptions about men and women have influenced standard academic subjects. Such assumptions are embedded in the theoretical frameworks, the formulation of research questions, the methodology and data collection, the interpretation of results, and the conclusions drawn.

Feminist theory may influence the fields of marketing and consumer behavior differently from the way it has affected disciplines such as history and literature or even social sciences such as psychology and anthropology. In these latter fields, feminist theory provided a totally new perspective. Because marketing theoreticians and practitioners have always focused on "women as consumers," the feminist perspective may not *initially* appear to offer something new and unique. We argue, however, that by incorporating the tenets of the feminist perspective, consumer behavior theory can be significantly enriched.

This paper first describes the foundations of the feminist perspective as they are applied to research. It then poses questions such an approach raises concerning the conceptualization of consumer behavior theory and research. Finally, it develops implications for reshaping the consumer behavior, and, more generally, the marketing, paradigm.

Questions to be considered include:

- 1) How does feminist theory affect research?
- 2) How does gender affect the formulation of consumer behavior research?
- 3) How do researchers in consumer behavior and marketing view their subjects? How does the researcher/subject relationship affect research and its outcomes?

- 4) What is the effect of gender on our research methodologies?
- 5) What is the interdisciplinary dimension of research in consumer behavior and marketing?

These questions stem from a feminist approach to research. Such an approach extends beyond consideration of women's issues into a fundamental investigation of gender differences and their impact on a discipline's body of knowledge. Several of these issues have received attention in the marketing literature, without being seen in a specifically feminist context. Exploration of all these areas should lead to new insights which can ultimately operate to influence the paradigm.

A FEMINIST RESEARCH PERSPECTIVE

A feminist perspective is one that challenges and questions underlying assumptions in the discipline that have to do with gender (see Gergen 1988; Childers and Grunig 1989). This process allows scholars to see how these assumptions have affected research approaches and the development of thought in a field. Langland and Gove have articulated this usefully, writing that "A feminist perspective...seeks to correct the bias present in our academic disciplines by uncovering and questioning the hidden assumptions about men and women that have shaped and informed standard academic subjects" (1981:3).

A feminist approach however, does not *only* focus on women and gender, although that is its fundamental perspective. However, it also takes a holistic view of research, recognizing the interrelationships that exist between constructs within a domain. The perspective advocates a nonhierarchical methodology, wherein subjects are treated as equal partners with an investigator. It maintains that research cannot be value-free, because both the values of the researcher and the traditions of the discipline guide inquiry. A feminist approach fundamentally questions the status quo, forcing researchers to explore the assumptions they hold. As applied to consumer research this perspective would allow us to re-examine consumer behavior theory, consumer research agendas, and more generally, the academic marketing discipline overall.

The marketing discipline as a whole is ripe for such re-examination; as Shelby Hunt has pointed out, according to the definitions set by Thomas Kuhn (1970), marketing is actually "pre-paradigmatic," still in that first stage of debate over what constitutes the scope and content of the discipline, what the important questions are. It is not yet firmly shaped and solidified (see Hunt 1991: 332; see also Firat, et al 1987: xii-xiii). In this sense the feminist point of

¹ Authorship of this paper is equal. A longer, more general version of this paper was presented at the 1991 Conference on Gender and Consumer Behavior.

view can simply join all the other points of view competing for inclusion, as marketing sets an agenda in terms of its content, methodology and epistemology. It is crucial that the feminist perspective be considered now, and, where relevant, incorporated, since the discipline's paradigm sets the rules for research formulation and administration. As one scholar has noted:

A paradigm (1) serves as guide to the professionals in a discipline for it indicates what are the important problems and issues confronting the discipline; (2) goes about developing an explanatory scheme (i.e. models and theories) which can place these issues and problems in a framework which will allow practitioners to try to solve them; (3) establishes the criteria for the appropriate 'tools' (i.e., methodologies, instruments, and types and forms of data collection) to use in solving these disciplinary puzzles; and (4) provides an epistemology in which the preceding tasks can be viewed as organizing principles for carrying out the 'normal work' of the discipline. Paradigms not only allow a discipline to 'make sense' of different kinds of phenomena but provide a framework in which these phenomena can be identified as existing in the first place (William J. Filstead, quoted in Deshpande 1986: 113).

However, despite its early stage of development, the marketing discipline already operates from some basic assumptions, values and methodologies which often go unchallenged and which affect research in consumer behavior. Marketers do not necessarily recognize that they are influenced by these beliefs in choosing what they consider to be salient research problems, appropriate research design and methodology, and proper analysis. Using a feminist approach forces us to uncover and reexamine those beliefs, particularly as they relate to gender.

APPLICATIONS OF FEMINIST THEORY

Feminist Theory and Research

The feminist approach to research builds in part on the work of those who have examined gender differences in personality, cognitive development and socialization, work which holds strong implications for scholars in consumer behavior (see, for example, Carlson 1971; Miller 1976; Gilligan 1982). This body of research has found differences between males and females in processing skills and cognitive structuring. These lead to different world views, which in turn result in the preference for alternative approaches to seeking knowledge and to conducting research. Such gendered cognitive and social differences between males and females affect both female scholars in the marketing profession generally, and perceptions and research about female consumers. (Such gender differences are *learned*

behavior, thus are culture bound. This paper reviews studies pertaining predominantly to men and women in the United States).

Women, feminist scholars conclude, frequently interpret experiences in relatively interpersonal, subjective, and contextual ways. Men, on the other hand, frequently interpret experiences of self, others, space, and time in individualistic, objective and distant ways. For example Carlson (1971), in studying personality and gender, used conceptions of *agency* and *communion* to differentiate the aggregate of males from the aggregate of females. As she defines it,

Agency is seen in differentiating of self from the field, in intellectual functions involving separating and ordering and in interpersonal styles involving objectivity, competition exclusion and distance. Communion is seen in merging of self with the field, in intellectual functions involving communication, in interpersonal styles involving subjectivity, cooperation, acceptance and closeness (Carlson 1971:271).

Carlson found that men were more selective in the information cues they use in interpreting and acting upon the world; women were found to be more comprehensive in cue perception and more likely to consider problems within a context or frame of reference.

Gilligan (1982) and Belenky, et al. (1986) reached similar conclusions about gender differences. Like Carlson, they reported that women exhibit greater complexity of constitutional-psychological processes, and that they are more concerned with interpersonal relationships than men. Gilligan (1982) attributed differences in personality and cognitive structures to fundamental developmental differences that had not previously been recognized. She and Belenky et al. (1986) studied the developmental and socialization processes of females and found them to differ significantly from those of males. Through examining developmental differences these authors have identified men's knowledge as "separatist." Men (and women adopting this pattern) use impersonal procedures for arriving at the truth. This can be contrasted with women's "interconnectedness," in which truth emerges through empathy and understanding (Belenky et al. 1986: 102). Where men, as separate knowers, prefer to separate out or extrapolate a singular factual error or logical contribution as a basis for analysis, women have a tendency toward a more holistic view. Belenky et al. (1986) defines this interconnectedness as "constructed knowing." Women, according to these researchers, integrate knowledge of self (that which is personally important) with knowledge gained from others. Such "constructivist" thinkers understand that the answers to all questions vary depending on the context and the frame of reference.

Meyers-Levy (1989) has reviewed much of the research on gender differences and proposes a theory called the "selectivity hypothesis." She argues that

men and women select different cues from the environment, and interpret them in dissimilar ways. This affects their modes of inquiry. For example, Meyers-Levy notes, females engage in comprehensive information processing and attempt to assimilate all available cues; males used heuristic devices to select singular cues and tend to be driven by reliance on those that are highly available and particularly salient in the focal context. Males' processing is characterized by efficiency-striving heuristics whereas females' is characterized by pronounced attempts toward maximizing the comprehensiveness of processing of available cues.

Belenky et al. (1986) concluded that "women tend not to rely as readily on hypothetico-deductive inquiry, which posits an answer (the hypothesis) prior to data collection as they do on examining basic assumptions and the conditions in which a problem is cast" (p.139). Hence, the positivist approach, the scientific method, seems more appropriate to male information processing and research than to that of females. In addition, recent studies have pointed to the differential nature of the graduate school learning experience for women and men (see e.g., Aisenberg and Harrington 1985; and Belenky, et al. 1986). This could result in female scholars perceiving and choosing research issues in new areas, and framing research questions differently than males.

Women now represent approximately 20% of the AMA educators, and since 1986, nearly 50% of the doctoral degrees in marketing have been granted to women (National Center for Educational Statistics 1988). The marketing profession generally is recognizing the growing number of females coming into the field, with special sessions at the last three AMA education conference, as well as at ACR and AMS meetings within the past year. These sessions addressed issues such as problems encountered by females being trained predominantly by men, and the difficulty of developing research agendas on topics of interest to women and/or those using a feminist perspective. Historically, however, students of the marketing profession have been trained in a male-dominated environment.

While few studies in marketing have attempted to determine how gender affects the conceptualization and administration of research, a study has been conducted recently on female marketing academics (Carsky, Kennedy and Zuckerman 1989; Carsky, Kennedy and Zuckerman 1990b). The results show that research interests of female educators center on consumer behavior and promotion, while those of male educators are divided evenly among subfields including management, strategy, channels, sales, pricing, promotion and consumer behavior (Kennedy, Carsky and Zuckerman 1990).

Gender and the Framing of Research Questions

In framing research questions, we are of necessity guided by the paradigm of the discipline. We frequently frame our questions in light of prior research. We critically review the literature, looking for important issues left unsolved by previous

research. We formulate the problem and design the study based on this. But to what extent do we look beyond the scholarly body of literature to inquire about the validity of prior research? How often, for example, do we question the accuracy of prior research in reflecting the issues, concerns, attitudes, and behaviors of consumers interacting in the marketplace? Feminist theory would suggest that when conducting an inquiry on marketplace behaviors, the research begin by asking potential subjects about their conception of reality. It is essential to consider a broad frame of reference, to view situations and issues within a context as opposed to using a "separatist" perspective (see Gilligan 1982; and Belenky et al. 1986). Often this calls for unstructured information gathering on a large scale preceding the use of structured questions, to increase the likelihood that the information to be quantified reflects the circumstances of the respondents' lives.

More specifically, we need to consider whether or not we are asking the right question, focusing on relevant gender differences in behavior. Have we, for example, acknowledged male and female differences in processing and conceptualization which can impact our research findings? To what extent have we, in consumer behavior, relied primarily on men to provide us with information about women? To what extent has the literature previously developed accurately recorded women's experiences, providing a reliable foundation and context for studying issues salient to female consumers?

For example, the supermarket has provided researchers with a rich environment in which to study consumer purchase decisions, particularly with respect to information processing and the selection of informational cues. Although studies report that up to 40% of food shoppers are men, *women* are still primarily responsible for food shopping and food purchasing decisions within the household (*Food Marketing Institute* 1989): 63). In recent years a number of studies have examined the use of nutritional information in the store. For the most part, these investigations relied on sales data as the dependent measure. In five separate studies, no change in the sales of the "most nutritious brand" was found (Carsky 1988). In none of these studies were food shoppers asked about 1) their perception of nutritional differences between brands, 2) the importance of nutrition for selected products, 3) whether nutrition decisions were made at the brand level, and/or 4) whether the format of the information display was comprehensible or important enough to warrant notice. No consideration was given to these issues, or to the context in which food shoppers made decisions. The design of each of these studies relied upon the previous literature. McGrath et al. (1982) has suggested that the worst method to choose for taking a step forward on a research problem is any method that has been heavily used in the past. Yet, because of traditions in the discipline, that is often precisely what is done.

We might also ask whether the experiences of men are represented as the norm, those of females as different, as other. An historical example illustrates

how such a construction can occur over time. When the Curtis Publishing Company put out a promotional brochure about consumer behavior called *Selling Forces*, it contained a section called "Selling to Men," and another called "Selling to Women" (Curtis Publishing Company 1913). In 1952, Curtis issued a new book by the same title. This updated and revised version again contained a section called "Selling to Women," but none on selling to men; it was assumed that men, the norm, formed the target of all other advice in the book (Hobart and Wood 1952). Similarly, some marketing and consumer behavior texts have discussed women, a numerical majority in this country, as a sub group (see, for example Shiffman and Kanuk 1987: 520-535).

The association of women with the private and men with the public sphere, documented by feminist scholars (Rothman 1978; Evans 1989), may also affect research formulation. Research in the social sciences (from which much consumer research theory and methodology has derived) has often operated under assumptions and techniques developed to examine the public sphere. These techniques frequently fail to provide sufficient information about the private sphere. For example, Graham offers a critique of survey methodology, a technique frequently used in consumer research. She notes four assumptions made about units of analysis: 1) units are single and complete; 2) units are equivalent; 3) units and their products have an object-form external to the individual; and 4) units and their outputs are measurable (Graham, cited in Driscoll and McFarland 1989). These assumptions remove the individual from his/her social context. This masks the structure of social relationships and treats patterns of action and attitude as personal characteristics rather than dimensions of social structure. Graham points out that the assumptions behind survey measurement presumes a precise definition of social phenomena, which in and of itself is inherently ambiguous. Finally, she argues that measurement is "closely tied to the marketplace, where activities are quantified and regulated through the medium of money," thus tied to the public sphere (Graham, cited in Driscoll and McFarland 1989: 189). This analysis is particularly salient to the marketing discipline generally which initially developed to solve the problems of the distribution of goods, and hence, was concerned primarily with the public sphere. Marketing only came to recognize the importance of measuring consumer behavior (played out at least in part in the private sphere) in the 1960s. Marketing's long tradition of focusing on the public sphere has undoubtedly spilled over into the way it assesses the private. The effect of this spillover needs to be examined.

Researcher-Subject Relationship

A feminist approach calls for a non-hierarchical methodology. Feminist scholars believe that researchers, subjects and the knowledge that emerges from the research process are interconnected, rather than independent (Gergen 1988: 94). This means recognizing what the scholars Childers and Grunig describe as "the interconnectedness between

scientists' gender and their relationship to subjects and facts" (Childers and Grunig 1989).

Interconnectedness between researcher and subject is not the norm in research about consumers, even when the research seems on the surface to deal with feminist or woman-oriented issues. For example, when the women's liberation movement reached a peak in the late 1970s, a number of marketers focused their research on women and gender effects, most notably in the field of advertising. A flurry of studies were conducted (Sexton and Haberman 1974; Poe 1975; Venkatesan and Losco 1975; Venkatesh and Tankersley 1979; Venkatesh 1980; and Skelley and Lundstrom 1981), which looked at stereotyping of women in advertisements, effectiveness of various portrayals of women, comparison of portrayal of men and women, and media readership and viewing by sex. Yet none of these studies fundamentally questioned the nature of the researcher-subject relationship in doing this work; none of the researchers (male and female) questioned their own formulations or views (and stereotypes) about their subjects.

No studies in consumer research have been uncovered which examine the effect of gender on research. In psychology, however, a meta-analysis performed on a series of research topics revealed significant effects for sex of researcher on the outcome (Eagly and Carli 1981; and Eagly and Crowley 1986). The investigators found that authors are more likely to report behaviors that are socially desirable for members of their own sex. Other studies have found interactions between sex and the task characteristics in experimental designs. Results have indicated that some tasks are not gender-neutral, and that either males or females are more likely to excel (see Deaux 1971; Deaux and Taylor 1973; Major and Deaux 1982; Deaux 1984).

The feminist analysis of the researcher-subject relationship is clearly in line with the interpretivist stance which Hudson and Ozanne describe, writing that:

Interpretivists hold that researcher and people under investigation interact with each other creating cooperative inquiry. If the social reality is based on individuals' or groups' perceptions, then in order to be able to understand those perceptions, these individuals must be involved in creating research process. Thus, the individual who is studied becomes a participant in the experiment, guiding the research as well as supplying information. Interpretivists believe that in the social sciences the scientist is a member of social reality; no privileged Archimedean vantage point exists. This view results in emerging research designs that require ongoing adaptability on the part of the researcher. From the interpretivist's point of view, the merging designs are better able to take into account the subject's knowledge (Hudson and Ozanne 1988:512).

Similar statements on the importance of mutual interaction between the researcher and the subject (informant) can be found in Hirschman 1986; Levy 1981; Thompson et al. 1989, and others who have contributed to a growing body of "crisis literature" (Hunt 1990).

Whether or not one cares to conduct inquiry using the interpretivist or phenomenological path to knowledge, one should at least attempt to understand the "reality" of the individuals under study. Where we have sound evidence, through the accumulation of studies on gender, that males and females conceptualize differently, we should, at a minimum, keep this in mind when investigating phenomena where such distinctions are important.

Research Methodology

Empirical knowledge is always contingent on the methods, populations, situations, and underlying assumptions involved in the process by which that knowledge was captured. As Driscoll and McFarland note, "Feminist research methodology is oriented toward contextualizing the research process, the researcher, and the subject of the research based on a nondualistic world view" (1989). While calling for a holistic approach, a feminist perspective does not negate the validity or usefulness of the scientific method, with its attendant experimental design and statistical analyses. It does, however, posit that knowledge requires a convergence of substantive findings derived from a diversity of methods of inquiry. It advocates the multi-method approach advanced by Campbell and Fiske (1959), which suggests knowledge acquisition through a convergence of findings, involving observations, humanistic inquiry, and experimental studies. For statistical analyses, the feminist approach would imply greater use of causal modeling techniques and multivariate statistics, as it maintains that multiple influences exist for any behavior.

In consumer research, the experimental design is perceived to be the "purest" form of research. The true experiment allows us to isolate a construct, to measure it with precision and accuracy, thus forwarding the advancement of knowledge and building of theory. For example, we often examine the "behavior" of college students when given an artificial task, in a contrived setting, and then generalize this into consumer behavior in the marketplace. The experiment is seen to be value-free, as it seeks to eliminate the threats to internal and external validity. The feminist perspective would question how well an isolated task performed in a contrived setting actually represents consumer interaction in the marketplace. It also would argue that this is not value-free research. The conceptualization and framing of the experimental questions, along with their method, are steeped in the traditions of the discipline, with current research often mirroring past research.

Interdisciplinary Dimensions of Research

Just as they believe in interconnectedness of knowledge, so feminist scholars stress the importance

of an interdisciplinary approach to research (see e.g. Keller 1987). In order to understand and comprehend the complexities of any phenomenon it must be examined from several perspectives. The salience of an interdisciplinary approach to understanding human behavior is self-evident.

In this area the consumer behavior discipline appears very strong. By incorporating psychologists, anthropologists, home economists and economists, it draws on a variety of disciplines; the Association for Consumer Research specifically notes that it is an interdisciplinary body. Consumer research has often been at the vanguard of interdisciplinary and innovative perspectives (e.g. Firat, et al. 1987). It has been within this domain of marketing that logical empiricism or logical positivism as the only legitimate mode of seeking knowledge has received the most attention. The work of scholars from divergent backgrounds with different philosophical methodologies and ontological frameworks are provided with a forum for presenting alternative world views of the consumer environment. While Anderson (1983) suggests that paradigmatic conflicts cannot be resolved as they require too great a "conceptual leap," the emergence of new paradigms arising from the interdisciplinary nature of ACR and its journal may occur as a result of exposure through this association that acknowledges the legitimacy of different philosophies and methodologies.

IMPLICATIONS FOR RESHAPING THE PARADIGM

Marketing has moved from a study of products and services, to a study of social interactions (human behavior). When considering the design of a product, for example, we are interested not in the product itself, but rather in the benefits that will accrue to the user of the product. Marketers' inquiry then must turn to understanding the attitudes, motivations and desires of the actors involved in the exchange transaction. Yet as suggested more than twenty-five years ago (Halbert 1964), there is no simple route to understanding human behavior: "...our scientific research must be turned inward as well as outward. We must study marketing operators and marketing scientists... and we must study ourselves. Only after we know what we do and how we do it can we begin to do it better" (1964: 32).

The feminist approach offers a conceptualization and suggests methodologies for studying such social phenomena, and behavior by consumers. It emphasizes the context or milieu in which individuals operate in the exchange relationship, with each acting in his or her own self interest to maximize the perceived benefits and minimize the costs of the transaction. If a general theory of marketing is to be developed, we must study actors in the transactions within the natural environment, something a feminist perspective facilitates. Through the tenets of interconnectedness, a holistic view, anti-elitism, and a non-hierarchical research methodology, a better understanding of marketing phenomena will be realized.

In defining marketing as the behavioral science that seeks to explain relationships, Hunt (1983) delineated four sets of marketing explananda, which apply to consumer behavior as well, including: 1) the behavior of buyers directed at consummating exchanges; 2) the behavior of sellers directed at consummating exchanges; 3) the institutional framework directed at facilitating exchanges; and 4) the consequences on society of the behaviors of these parties. The feminist approach can broaden marketers' perspective in each of these areas.

Women have long been the primary target for the marketing efforts of producers and distributors of many consumer goods. Feminist theory offers an understanding of women's ways of knowing--of the female mode of conceptualization and processing of information that will lead to better comprehension of the manner in which women engage in the selection, consumption and disposition of goods, and how it may differ from that of men. The theory specifies that most women view things in a context. To separate out one minute aspect of the purchase process for study is inappropriate for understanding their buyer behavior.

Knowledge about the behavior of sellers can also be furthered by using a feminist perspective. To understand why sellers produce, price, promote and distribute as they do requires anti-elitism and a non-hierarchical research approach. We must, as feminist theory suggests, seek to empathize with the position of the seller, to utilize interactive modes of inquiry in which both the research and researched learn from the process. We must use inductive and qualitative methodology. As women now fill the ranks of the industrial salesforce, we should also examine the differences in the ways men and women operate within the occupation. In light of the feminist scholarship on cognitive differences between the sexes, we might find that male and female salespeople respond to customer service needs differently. Successful salespeople of the two genders may differ both in their routes to success and in their reasons for success.

In examining marketing's institutional framework, we must employ an historical methodology, one which looks at the societal environment in which institutions have evolved over time. In viewing this history we need to consider the societal conditions involving not only the public sphere of marketplace transactions populated principally by men, but also the private sphere, typically the domain of women. We need to examine the interactions between these two arenas, and how this interaction might have influenced the development of institutions important to marketing. For example, changes in the nature of women's work in the home influenced the development of department stores in the nineteenth century. In more recent years, the changing role of women, the dual earner family, and smaller household size have forced changes in the retailing community.

To look at changing institutions without considering the last of the four explananda, the effects on society, would be to examine one aspect of the environment out of its context. From the end of the last century women have been instrumental in

spearheading movements to improve working conditions, the safety of products, and the inequities of the marketplace. They have been leaders in the environmental movement and the consumer protection movement. We must study what particular factors motivate women to take up and/or support a cause, and investigate how and why they are frequently earlier than men in spotting inequities and spillover effects of production. By understanding the world view of women, we can better learn to identify potential problems with our marketing efforts and correct them as they are about to occur.

In summary, the feminist approach calls for a rethinking of consumer behavior. In so doing, it will enrich the field. As Belenky et al. note, to see "knowledge as a construction and truth a matter of the context in which it is embedded greatly expand(s)... the possibilities of how to think about anything, even those things we consider to be the most elementary and obvious" (1986: 138). Conversely, consumer research tools and analysis can be used to explore more deeply and understand more completely gender construction in our society. The areas outlined here point to new areas of inquiry for consumer researchers, feminists, and feminists within the consumer behavior discipline.

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Are the Models Compatible for Empirical Comparison? An Illustration with an Intentions Model, an Expectations Model, and Traditional Conjoint Analysis

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ABSTRACT

Before models are compared empirically, it must be ascertained that they are indeed comparable at a theoretical level. Unfortunately, the literature does not contain a standard procedure for making theoretical comparisons of models. The authors attempt to fill this lacuna by suggesting a scheme for checking the compatibility among models prior to empirical comparison.

Currently there is a plethora of models and techniques in marketing. These have emerged from several perspectives. Some are based on economic utility theory, some are purely attitudinal in nature, and others appear to be based on both economic and psychological perspectives. There are also those that are based on the interface of economics and probability theory, and some are purely stochastic in nature. Unfortunately however, our understanding of marketing phenomena in general and the prediction of consumer behavior in particular does not appear to have reached a reasonable level of perfection (Hoyer 1984; Jacoby 1978). One way to enhance this understanding is to significantly increase the extent of empirical comparisons of existing models and techniques in a variety of situations within the consumer-marketplace domain. The revelations from such comparisons would aid not only in model selection for various situations but also in the building of new models and techniques.

However, before models are compared empirically, it must be ascertained that they are indeed comparable. A theoretical comparison of the chosen models would reveal whether or not the models are actually comparable and if not, it would reveal the specific points of incompatibility among them. In some cases, it may be possible to get around the points of incompatibility and then make a "correct" empirical comparison. Currently, there does not seem to be any standard procedure for carrying out theoretical comparisons of models and techniques. In this paper, we suggest such a scheme, and then illustrate it with three selected models.

A SCHEME FOR CHECKING COMPARABILITY OF MODELS

The suggested scheme for a theoretical comparison of models is depicted in Figure 1, and consists of six main steps. Step 1 deals with the *contextual terms* (e.g., reliability, involvement, perceived control etc.) pertaining to the impending empirical testing. In this step, a clear explanation of the test context, and a semantic as well as a methodological clarification of the contextual terms figuring therein are furnished. In step 2, the selected

models are compared in terms of *purpose*. This essentially involves answering the following questions: (a) What is the main reason for the existence of each model? (b) What can be accomplished through the use of each model? (c) Is there compatibility among the chosen models with respect to (a) and (b)? In step 3, the models are compared on *focus*, and this involves answering two questions, and they are: (a) In a theoretical sense, what does the model basically stress? (b) What is the required level of analysis, individual or group? In step 4, the models are compared on *theoretical base and structure*. In step 5, their *boundaries and constraints* are compared.

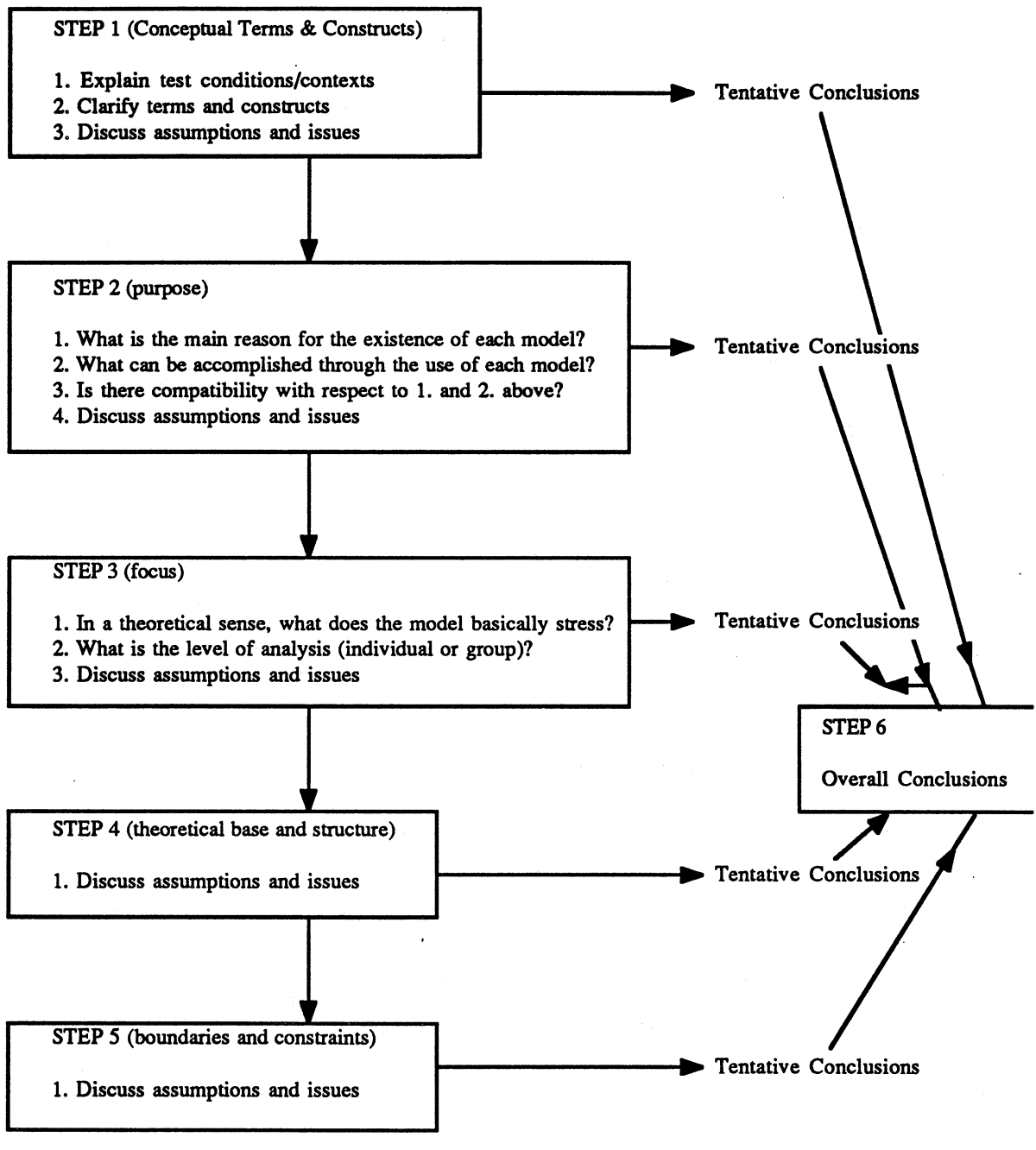
In each of the above steps, the assumptions of the models are taken into account at appropriate junctures. Relevant issues (if any) are raised and discussed in light of the above assumptions, and tentative conclusions are drawn. Based on all the tentative conclusions, overall conclusions are drawn (step 6), which pave the way for speculations on performance of the models.

An Illustration

Let us assume that a researcher wants to empirically compare the external predictive validity of a behavioral intentions model, a behavioral expectations model, and traditional conjoint analysis in a reasoned choice situation within the consumer-market place domain; note that any other set of models would be just as effective in illustrating our scheme. Since the theory of reasoned action (Ajzen and Fishbein 1980) has been the most widely adopted attitude framework within social psychology (Warshaw and Droge 1985), we choose it as our behavioral intentions model. For our behavioral expectations model, we use a modified version of Warshaw (1980)'s behavioral intentions model. We have picked conjoint analysis (Luce and Tukey 1964; Green and Rao 1971) mainly because, in recent times, it is probably the most widely used marketing research tool in the industry for measuring consumers' multiattribute utility functions (Green 1984). The surveys conducted by Cattin and Wittink (1982; 1989) provide evidence for the increasing use of conjoint analysis in the industry.

Note that in the interest of making the illustration clear and effective, a hybrid conjoint model was not chosen. The self-explicated part of hybrid conjoint models bears a close resemblance to attitudinal models in the sense that both rely on direct consumer input. Consequently, if a hybrid conjoint model is chosen, the distinction between "compositional" and "decompositional" would become blurred, thereby reducing the "contrast" effect between the attitudinal models and conjoint analysis.

FIGURE 1
A Scheme for Theoretically Comparing Models and Techniques



Since it was felt that having such a clear "contrast" would enhance clarity and comprehension of our scheme, traditional conjoint analysis was chosen for this illustration.

To ascertain theoretical compatibility among the above models, we apply our scheme as follows:

Step 1

Here, there are two contextual terms, *external predictive validity* and *reasoned choice*. The term

external predictive validity refers to the extent of agreement between what is predicted by a model and what actually occurs in reality. The qualification "external" warrants that the test setting be real and not contrived or hypothetical. The term *reasoned choice* is an off-shoot of the term "reasoned action" (Ajzen and Fishbein 1980) and simply refers to "reasoned actions" in a choice situation; the qualification "reasoned" refers to rationality.

Step 2

Here, the three models are compared in terms of their purpose. To facilitate presentation, the acronyms TRA, BEM, and CAS are used to refer to the theory of reasoned action, the behavioral expectation model, and traditional conjoint analysis respectively.

TRA: Ajzen and Fishbein (1980) have renamed the Extended Fishbein model and promoted it as a viable theory to predict and explain virtually any type of human behavior. Since they view consumer behavior as just any other behavior of interest, and that no novel or unique processes need to be invoked to explain or predict it, TRA may be used to explain and predict consumer behavior. Further, Ajzen and Fishbein (1980) recognize that consumer behavior is human action involving a choice among various alternatives. In view of this, by restricting its generality to consumption choice, TRA may be used for predicting consumer choice. The hypothesis underlying the application of TRA to consumer choice situations would be that a consumer has a certain level of "intention toward choosing an alternative" (the predictor of choice behavior) for each of the alternatives in the choice set, and would end up selecting that alternative for which the consumer has the highest level of the above predictor.

BEM: This model has been designed specifically for the purchase situations which is, by and large, characterized by the choice process. Therefore, the use of BEM as a predictive model of consumer choice is justified. The hypothesis underlying the application of BEM to consumer choice situations would be that a consumer has a certain level of "expectation toward choosing an alternative" (the predictor of choice behavior) for each of the alternatives in the choice set, and would end up selecting that alternative for which the consumer has the highest level of the above predictor.

CAS : In an essentially pragmatic discipline like marketing, CAS is used to estimate consumers' preferences among multiattribute stimuli. However, the ultimate purpose of doing this is to aid the marketer in the task of prediction of behavior in the market place with greater exactitude (Leigh, Mackay, and Summers 1984). This seems to be an accurate assessment of the role of CAS because for whatever intermediate purpose it is used in marketing, there is always the implicit assumption that it will help in the revelation of the behavioral tendencies of the consumer based on which better marketing strategies could be developed. Thus, the ultimate purpose is to help in the prediction of choice behavior in the market place. The hypothesis underlying the application of CAS to consumer choice situations would be that a consumer has a certain level of "total utility toward choosing an alternative" (the predictor of choice behavior) for each of the alternatives in the choice set, and would end up selecting that alternative for which the consumer has the highest level of the above predictor.

Issues: The proponents of TRA and BEM imply that the algebraic formulations in their approaches correspond to the consumers' cognitive processes, and thus, the models are primarily concerned with

explanation of behavioral phenomena. Prediction is relegated to secondary status. In contrast, CAS does not assume that consumers actually process cognitively according to the maximization principle (subject to constraints) but only that consumers choose as if they did. Thus, in a sense, CAS is more concerned with the end result rather than any cognitive process that may occur in the mind of the consumer prior to the end result. Perhaps because of this, Green and Srinivasan (1978) have opined that users of CAS have been concerned more with prediction than explanation.

Tentative Conclusions: In light of the foregoing, it may be concluded that if the purpose is prediction of consumer choice behavior in the purchase phase, then the three models are definitely comparable.

Step 3

In this step, the models are compared in terms of their main focus. TRA and BEM stress the subjective perceptions (salient subjective consequences) and evaluations rather than objective measures. It is to be noted that the saliency concept inherent in these models implies individualization in that the salient beliefs about the consequences of behavior may be different from individual to individual. In the ideal application of any of these two models, the analysis (including the elicitation of salient beliefs) should be done totally at the individual level, and conclusions drawn at the individual level only. In other words, the ideal application in the consumer choice context would be to explain and predict *individual* choice behavior.

CAS focuses on the characteristics of the choice objects. In other words, it is really an object based approach. Objects are analyzed in terms of certain basic features (attributes), whose juxtaposition in a particular product is viewed as the basis of choice. Thus, the preference is initially defined on individual attributes (e.g., prefer low price; prefer black color), and choice is effected on the objects (e.g., prefer a low priced, black colored car among the many cars). However, there is the implicit behavioral assumption that preferences are a manifestation of the subjective perceptions and evaluations of the individual. Further, the saliency aspect figures in CAS also, but in the form of salient attributes of the object. As regards the level of analysis, it is the same as in TRA or BEM. The ideal application of CAS would be to elicit salient attributes for every individual, conduct analysis at the individual level, and draw conclusions on preferences (or choice behavior) only at the individual level.

Issues : In the operationalization of any of these three models, the ideal application referred to above, does get diluted in rigor. From a marketing decision point of view, behavioral prediction at the individual level is of very little use because that would be like the extreme of treating every individual as a separate segment. This, of course, would be realistic and proper in many industrial marketing situations. For most consumer good situations however, unless these individual predictions can be meaningfully aggregated and some concrete conclusions drawn at the

target market level, realistic and economical marketing strategies cannot be formulated. But aggregation dilutes theoretical rigor. For instance, in the operationalization of TRA or BEM, aggregation actually takes place in two stages. First, the saliency aspect gets diluted because individual salient beliefs are aggregated and a few modal salient beliefs are obtained. These are then used in a questionnaire designed for the entire sample. The purity of measurement and analysis at the individual level gets tarnished at this stage itself because some of the modal salient beliefs may not be salient to every respondent. The second dilution takes place when the results of the individuals are aggregated to draw conclusions at the sample level.

In CAS, the salient attributes (and levels) of the product for each individual are aggregated, and only a few modal salient attributes (and levels) are used to construct profiles or attribute-level combinations. In other words, the perceived attributes (and levels) are assumed to be constant across individuals in the sample. This assumption of homogeneity of perceptions has been questioned by Ritchie (1974). Despite the implicit assumption in CAS that differences in perception are captured totally by the individual preferences, this homogeneity of perceptions assumption can only be deemed as the first dilution of the saliency or the individual level analysis aspect. The second dilution in CAS takes place when the results are aggregated to draw conclusions at the target market level. However, it must be pointed out that in applications of CAS, the individual differences are retained to a relatively greater degree because the second aggregation takes place usually through a choice simulator, which is a relatively more rigorous method.

Tentative Conclusion: In light of the foregoing, it may be concluded that despite the difference in focus, there is compatibility among the three models because they are all essentially individual level models, and the ideal application of any of these models would be at the individual level. But in the operationalization of these models, this ideal state gets tarnished in every model owing to aggregation. However, it is realized that without aggregation, there would be very little use for these models in a pragmatic discipline like marketing. So it seems that it does not serve any useful purpose to debate the comparative theoretical rigor of these models because they all lose rigor when they are operationalized, at least in marketing scenarios.

Step 4

Here, these models are compared in terms of their theoretical base and structure. TRA is based entirely on concepts of social psychology. BEM is based on a mixture of social psychology (attitudinal formulation), economics (utility maximization/satisficing principle), and mathematical psychology (probability theory). However, both models belong to the compensatory type, and rely on direct consumer input. Further, each one uses a compositional

approach in that responses obtained on simpler components are combined in some fashion to yield a numerical representation of the main component (behavioral intention or behavioral expectation depending on the model). However, there are important structural differences between these two models.

Figure 2 furnishes a pictorial description of TRA. As per this, behavioral intention is the immediate antecedent of behavior. Intention is determined by an attitudinal (personal) component and a normative (social) component. The model can be symbolically stated as,

$$B \sim BI = w_1 (A_B) + w_2 (SN) \text{ where,}$$

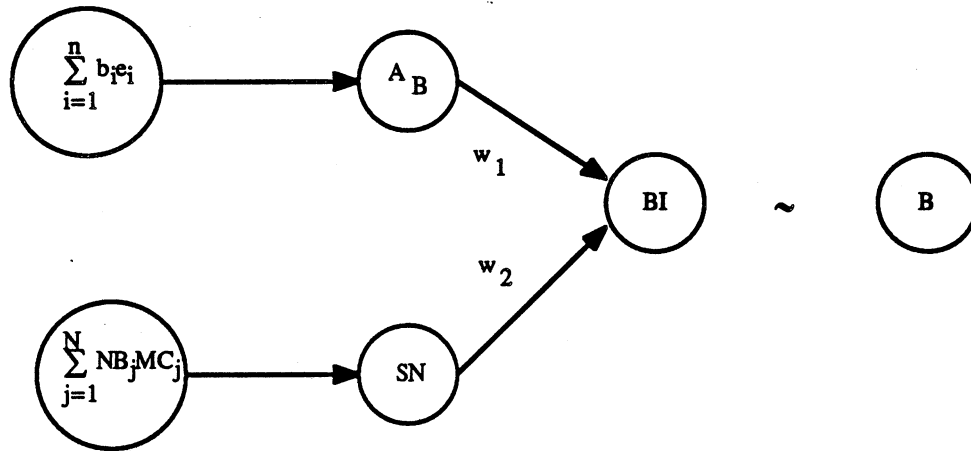
B is Overt behavior, BI is Behavioral intention (subjective probability of intending to perform behavior B), A_B is Attitude toward performing behavior B (e.g., attitude toward buying a brand; note that this is not attitude toward the brand itself.), SN is Subjective norm (normative influence; the collective perceived influence of "important others"), and w_1 and w_2 are empirically determined weights denoting the relative influence of the two components. A_B is determined as $\sum b_i e_i$ where, b_i is the subjective probability that performing the behavior will result in outcome i , e_i is the individual's evaluation of outcome i , and n is the number of salient outcomes. SN is determined as $\sum NB_j MC_j$ where, NB_j is the belief that referent j thinks the individual should/should not perform the behavior, MC_j is the individual's motivation to comply with referent j , and N is the number of salient referents.

BEM emerges when the behavioral intention model proposed by Warshaw (1980) is treated as a behavioral expectation model after necessary modifications in the constructs. Essentially, the logic in the model is based on "working backwards" from the antecedents of behavior and deriving a framework of cognitive constructs and their interrelationships with each other and behavior. Assuming that the subjective probability (expectation) of performing a specific behavior (e.g., purchasing the New York Times) is often conditional upon the formation of more global antecedent expectations (e.g., purchasing a newspaper), an operational equation for product purchase contexts is derived, which may be stated as,

$$BE_y = BE_Y \times BE_{y/Y} \text{ where,}$$

BE, behavioral expectation, is the individual's estimation of the likelihood that he/she will perform some specified future behavior, Y refers to the product type, and y refers to the specific brand of Y. $BE_y =$ Expectation to buy specific brand y, $BE_Y =$ Expectation to buy product type Y, and $BE_{y/Y} =$ Expectation to buy brand y assuming purchase of product type Y.

FIGURE 2
The Theory of Reasoned Action

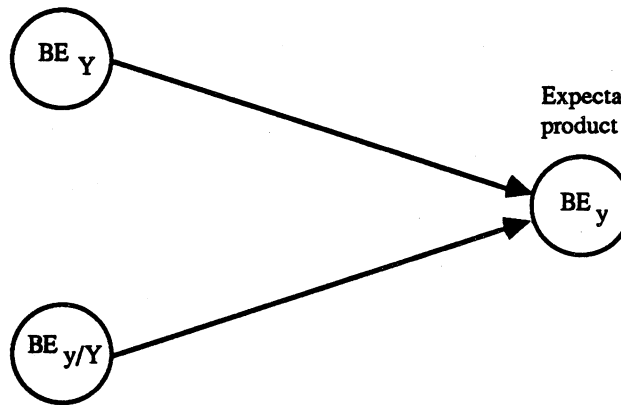


Source : Based on Ajzen and Fishbein (1980)

FIGURE 3a
The Behavioral Expectation Model

Determinants of Brand Specific Expectations (BE_y)

Expectation of purchasing product type Y



Expectation of buying brand y of product type Y

Expectation of buying brand y assuming purchase of product type Y

Source: This is a modified version of the diagram furnished by Warshaw (1980).

Figure 3a illustrates the above formulation. Figure 3b furnishes the antecedents of BE_Y and $BE_{y/Y}$. Product type expectation, BE_Y , is stated to be a function of purchasability (X_1) of product type Y and felt need or desire (X_2) to purchase product type Y. The antecedents of (X_1) and (X_2) are as shown in Figure 3b.

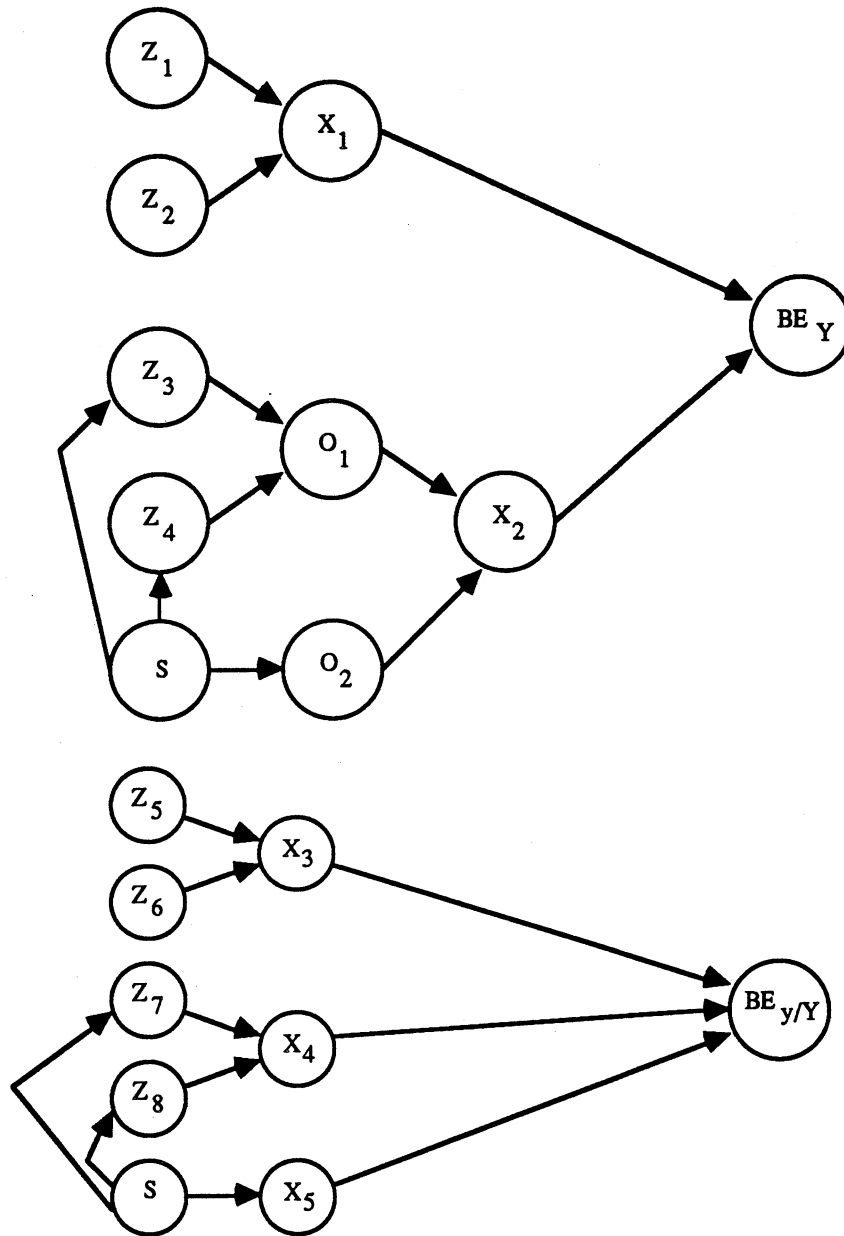
Brand choice expectation assuming purchase of product type, $BE_{y/Y}$, is stated to be a function of

relative purchasability of brand y (X_3) as compared with alternative brands of Y, relative ability of brand y (X_4) to satisfy own product use needs (for instance, in the case of a newspaper, international news, sports coverage etc.), and felt pressure (X_5) from others to buy brand y instead of some alternative brand of Y. The antecedents of (X_3), (X_4), and (X_5) are as shown in Figure 3b.

While the origin of conjoint measurement can be traced to the work of some economists of the last

FIGURE 3b

Determinants of BE_Y and $BE_{y/Y}$



Z_1 = Affordability of product type Y; Z_2 = Accessibility of product type Y; X_1 = Purchasability of product type Y; Z_3 = Own actual need to buy product type Y; Z_4 = Own longing to buy product type Y; O_1 = Own desire to purchase product type Y; S = Societal norms; O_2 = Felt pressure from others to buy product type Y; X_2 = Felt need or desire to purchase product type Y; BE_Y = Expectation (likelihood) of purchasing product type Y. Z_5 = Relative affordability of brand y; Z_6 = Relative accessibility of brand y; X_3 = Relative purchasability of brand y; Z_7 = Relative ability of brand y to satisfy own actual product use needs; Z_8 = Relative ability of brand y to satisfy own product use desires; X_4 = Relative ability of brand y to satisfy own product use needs; S = Societal norms; X_5 = Felt pressure from others to buy brand y instead of some alternative brand of Y; $BE_{y/Y}$ = Expectation (likelihood) of buying brand y assuming purchase of product type Y

Source : This is a modified version of the diagram furnished by Warsaw (1980).

century, the field of conjoint analysis formally came into existence only with the work done by Luce and Tukey (1964). Since that article, the field has developed rapidly in a theoretical as well as an applied sense, and consists of a variety of models and generalized techniques (see Green 1984; Green and Srinivasan 1978). CAS is based on the fundamental principles of maximization and decomposition in decision making by rational human beings, and makes use of the occurrence of polynomial structures in the various fields of study. It uses a decompositional approach in the sense that overall judgments of the main component (attribute-level combinations) are broken into numerical measures for simpler components (attribute levels).

Compensation also comes into play here in the sense that the respondent may rate a particular combination that is weak (for the respondent) on one important attribute level highly if other attribute levels in the combination are strong. For a simple mathematical exposition of CAS, we refer the reader to Rao (1977).

CAS essentially involves asking the respondent to give overall or global judgments/evaluations about a set of alternatives and then decomposing these overall judgments/evaluations into separate utilities or part worths that, given some type of composition rule, are most consistent with the respondent's overall judgments or evaluations. In other words, the technique yields utilities from which the original global judgments or evaluations can be closely reconstituted. Note that a part worth is simply the value or importance of an attribute level as perceived by the respondent. Note also that the utility measures (parameter estimates) are statistically derived.

Issues: The general model of conjoint measurement is, strictly speaking, context free and does not provide ground rules to develop some kind of usage typology (what model would be suitable for a particular situation) for conjoint models (Rao 1977). This forces researchers to either rely on past empirical research concerning the performances of various conjoint models or use a trial and error approach or simply assume that a particular model would be suitable for a particular situation and use it. This situation is unlikely to be altered unless - as Rao (1977) has pointed out - a theory for evaluation of multiattribute stimuli akin to multidimensional psychophysics is developed. In contrast to this, with TRA or BEM, a change in context does not alter the basic structure of the model itself. In other words, the same model is applicable in all contexts. However, the basic model accommodates a change in the belief structure of the individual whenever the context is changed.

Tentative Conclusions: Despite differences in the theoretical bases and structure there seems to be compatibility among the models on a broad theoretical level. All these models assume human rationality to prevail in decision making. Also, each model has some form of compensation coming into play in its application. However, there are two key

differences between TRA and BEM as one group, and CAS. First, while the attitudinal models adopt a compositional approach, CAS adopts a decompositional approach. Second, whereas the attitudinal models rely on direct input from the respondent for parameter estimation, CAS relies on statistical techniques to derive parameter estimates.

Step 5

Researchers (Bagozzi and Warshaw 1990; Warshaw and Droge 1985; Warshaw et al. forthcoming) have stated that TRA actually applies to a relatively circumscribed domain, and have pointed out its boundary conditions as follows: (i) Behavior is restricted to mean single, observable, reasoned acts performed by an individual. (ii) Outcomes experienced by an individual are explicitly excluded, unless the individual fully has the means to achieve those outcomes, intends to do so, and there is no intervention (and possible prevention) in the form of external situational forces to the achievement of the outcomes. (iii) i and ii are tantamount to saying that behavior is completely determined by one's volitions, and performance is typically under one's self control; in other words, total volitional control must be there for both behaviors and outcomes. It follows therefore that TRA does not make a distinction between a behavior and an outcome; in reality, one typically has much less control over outcomes. Consequently, TRA does not regard succeeding in a race, gaining stamina, lowering cholesterol level, etc. as behaviors because "complete control" will typically not be there in any of them. Thus, TRA does not apply in cases of behaviors occurring because of non-volitional psychological processes (habit, impulse) or situational contingencies (fear, coercion). (iv) Further, phenomena such as goals (desired end-states), plans (mental procedures for achieving these ends), and behavioral expectations (self-predictions of the likelihood of goal attainment and/or behavioral performance -Warshaw and Davis 1985), which act as antecedents to the initiation and/or actual performance of acts, are outside the scope of TRA. It must also be realized that under some circumstances, to state an intention is to express a goal, plan, and expectation. These mental events are often distinct, and combinations of these states can occur. These are brought out in the following examples. One may have a firm intention to stop eating desserts yet possess no plans to do so; one may even believe that such stopping is unlikely. One may have a strong expectation that he or she is going to drink some wine yet at the moment neither intend nor plan to do so. But such combinations of states of intentions, goals, plans, and behavioral expectations do not fall within the boundaries of TRA except when intentions equal expectations. In view of the above, it would be more correct to view TRA as a model designed to explain and predict a wide range of *voluntary* and *reasoned* behaviors of interest, and not as a model that can explain and predict virtually any type of behavior as contended by Ajzen and Fishbein (1980).

Strictly speaking, TRA is an unconstrained choice model in the sense that constraints are not endogenous to the model. However, this does not mean that the proponents of TRA have not talked about constraints; constraints are assumed to be in the form of exogenous factors (situational forces that may impede the enactment of behavior). In a sense, TRA implicitly assumes that the individual takes constraints into consideration in decision making. However, there is nothing explicit in this regard in the model.

The boundaries of BEM, by virtue of its design, are restricted to purchase situations. Constraints pertaining to the purchase situation are also introduced (e.g., affordability). It is, therefore, a constrained choice model in the domain of purchase behavior.

A common feature of the two attitudinal models, TRA and BEM, is that they incorporate a normative (influence of important others) aspect through the subjective norm construct (TRA) or the social norm construct (BEM). Another common feature is that no interaction of any kind is considered by them, and other researchers (e.g., Miniard and Cohen 1979; 1981; 1983) have raised questions concerning TRA in this connection.

CAS essentially estimates only preferences even though conclusions about choice behavior are drawn through likelihood of purchase type of measurement, and /or through the use of a choice simulator. The latter method is, strictly speaking, an extension of basic CAS. This is in the same vein as the extension of mathematical programming to predict choice behavior (Bernardo and Blin 1977). Regarding constraints, there is nothing explicit in the model itself. However, users of CAS can create contexts for the respondent, and thereby expect the respondent to take contextual constraints into consideration while rating attribute-level combinations. But this is, no doubt, an assumption that actually stems from the greater assumption of human rationality. Further, the constraints (assumed) are treated as fixed across individuals. Also, there is nothing normative (what ought to be or ethical or both) about the conjoint model. However, CAS, in contrast to the attitudinal models, accommodates interactions among attributes.

Issues: The extent of realism in the choice scenario would particularly affect the effectiveness of BEM. For instance, if a "forced choice" scenario were to be adopted (which is often the case in comparative tests), the effectiveness of BEM would be considerably eroded because the first stage of the model becomes irrelevant ($BE_{\gamma} = 1$, and so X_1 and X_2 become meaningless).

Tentative Conclusions: In a theoretically rigorous sense, TRA and CAS are unconstrained choice models. On a less rigorous level however, they may be considered as constrained choice models because constraints are there, albeit implicitly. BEM accommodates constraints to choice behavior, and can therefore be considered, both theoretically and pragmatically, as a constrained choice model even though its domain of application is limited to purchase situations.

Step 6

Here, we arrive at overall conclusions. Figure 4 provides a gist of the results of the foregoing structured theoretical analysis. While it is very clear that each of them can be used individually to predict (if not explain) consumer choice behavior in suitable settings, a meaningful comparison of their predictive abilities can take place only when, 1. the choice behaviors are all reasoned behaviors, and 2. the test setting involves a real life choice scenario in the purchase phase with all its vagaries and uncertainties. Any limitation(s) imposed on the test setting that cuts into realism would in turn cut, particularly, into the richness of BEM. In view of the above, while the universal constraints of time and money always interfere with the desires of researchers (forcing them to adopt scenarios that lack realism), it is important to realize that a fair comparison of these three models *cannot* be done in artificial settings.

Conclusions

In this paper, we have suggested a general scheme for theoretically comparing models *before* empirical comparison, and determining, given the test setting and other criteria (external predictive validity or efficiency) whether in fact they are comparable under all conditions or only under some conditions or not at all. It should be noted that this is *not* a comprehensive scheme for discussing the results from an empirical comparison of models. In other words, we are not looking at the problem of determining which is truly a better orange given two oranges. Instead, we are looking at two fruits and determining whether they are both oranges. In the process, one may turn out to be an orange and the other a banana, or one may be a grapefruit and the other an orange, or both may turn out to be oranges of the same strain or different strains. The scheme would also enlighten as to the criteria under which two somewhat different models may be compared meaningfully. For example, a tangerine may be compared to a tangelo or a clementine on sweetness, juice content and vitamin C content.

It should also be noted that we have given only an illustration of the scheme; other illustrations may be given. Naturally, the specific items discussed under the dimensions of our scheme would depend upon the test setting and other criteria specific to the particular impending empirical comparison. However, it does not alter the logic of the scheme. It may also be noted that while alternative structures are possible, the proposed structure lends itself to a logical step by step flow, and thus has "programmable" or "flow chart" appeal.

The desire to sensitize researchers to the need for rigorous theoretical comparisons of models prior to actual empirical comparisons was the sole driving force behind this paper. By suggesting a scheme for doing this, we have endeavored to instill some degree of standardization in the task involved. It is our hope that the suggested scheme would contribute to creating order out of anarchy in model comparisons.

FIGURE 4
Findings of the Comparative Analysis

Purpose and Focus

TRA and BEM	CAS
EMPHASIS ON PREDICTION AND EXPLANATION	EMPHASIS ONLY ON PREDICTION
SUBJECTIVE PERCEPTIONS AND EVALUATIONS	OBJECT BASED APPROACH
SALIENCY ASPECT IN BELIEFS	ESSENTIALLY ESTIMATES PREFERENCES
IDEAL APPLICATION IS AT INDIVIDUAL LEVEL	SALIENCY ASPECT IN ATTRIBUTES
NORMATIVE ASPECTS	IDEAL APPLICATION IS AT INDIVIDUAL LEVEL
	NO NORMATIVE ASPECTS

Theoretical Base and Structure

TRA	social psychology based; assumes rationality to prevail; compensatory; compositional; direct consumer input; no interactions of any kind
BEM	social and mathematical psychology based; assumes rationality to prevail; compensatory; compositional; direct consumer input; no interactions of any kind
CAS	mathematical psychology based; assumes rationality to prevail; compensatory among attributes; decompositional; statistically derived measures; interactions among attributes allowed

Boundaries and Constraints

TRA	single, observable, reasoned acts; assumption of total volitional control; behaviors and outcomes indistinguishable; constraints are implicit
BEM	strictly for purchase situation; constraints are explicit
CAS	essentially estimates preferences but conclusions about choice behavior may be drawn by Luce's axiom or through choice simulator; essentially context free; constraints are implicit

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Ho, Ho, Woe: Christmas Shopping for "Difficult" People

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ABSTRACT

This study is a qualitative examination of gift selection strategies used by Christmas shoppers. While conducting this study, we noticed that shoppers described certain recipients as difficult to buy for. Thus, we explore the following issues: 1) who consumers identify as difficult; 2) why these recipients are perceived as difficult; and 3) what strategies consumers use in selecting gifts for difficult recipients. As such, this paper complements recent research by Sherry, et al. (1991a, 1991b) on the "dark side" of gift exchange behavior. Implications of the findings are discussed.

For almost two decades, consumer behaviorists have been interested in the study of gift exchange. Such issues as the influence of motivations (Wolfenbarger, 1990; Goodwin, et al., 1990), perceived risk (Heeler, et al., 1979; Mattson, 1982), balance (Belk, 1976) and involvement (Clarke and Belk, 1979; Belk, 1982) on such behavior have been explored. And while Belk (1979) compares the appropriate dimensions of gifts across some common occasions, researchers generally have not focused upon the gift exchange activities pertaining to a particular event.

However, some attention has been paid to gift exchange surrounding the Christmas holiday. Belk (1979) notes that Christmas gifts selected by parents often served as socialization agents. Caplow's (1982, 1984) studies of Christmas gift-giving behavior in "Middletown" reveal that people unknowingly follow specific rules pertaining to the display and distribution of gifts. More recently, Sherry and McGrath (1989) reaffirm Caplow's earlier finding that Christmas shopping is the "work of women" (p. 162). Lastly, Fischer and Arnold (1990) examine the influence of gender role attitudes upon Christmas shopping, and find that male and female shoppers with more liberal attitudes searched longer for, and bought more gifts, than did those with more traditional attitudes.

These studies have certainly improved our understanding of gift exchange at Christmastime. Yet the economic importance of the holiday -- with expenditures of Christmas gifts in America placed at \$37 billion in 1990 (Conference Board, 1990) -- makes the study of Christmas gift-buying and gift-giving worthy of continued investigation.

PURPOSE OF THE STUDY

The data for this paper emerged from a larger study on Christmas gift exchange. While collecting and interpreting our data, we noticed that most gift-givers categorized some of their recipients as particularly difficult to shop for. With this finding in mind, we have narrowed the focus of this paper to address the following research questions:

1. Who are the difficult people on gift buyers' Christmas lists?
2. Why are some recipients considered difficult to shop for?
3. What gift selection strategies do consumers employ in selecting gifts for difficult people?

By examining these questions, this paper complements the recent research by Sherry, et al., (1991a, 1991b) and Rucker, et al. (1991) on the "dark side" of gift-buying. Furthermore, it examines gift selection strategies used for a distinct subset of recipients.

METHOD

To recruit informants, we placed ads in a university paper and a local paper of a Midwestern city (population 100,000) during the first week of November, 1990. To solicit consumers with more complex Christmas shopping tasks, students were requested not to answer the ad. The copy explained that we wished to conduct two in-depth interviews with each informant, accompany them on two Christmas shopping trips and hold a brief follow-up interview in January. An incentive of \$30 was offered for participation.

Out of the 18 volunteers for the study, we chose the 15 consumers who indicated they would be accessible for all stages of the research. Each researcher was then assigned five informants.

In terms of demographic characteristics, 14 out of the 15 informants were women. The literature indicates that women are more involved in Christmas shopping (Caplow, 1982; Cheal, 1988; Sherry and McGrath, 1989). Thus, while we were disappointed by the lack of response by men, we were not surprised by it. The socioeconomic status of the informants ranged from lower middle class to middle class, and ages ranged from the early twenties to the mid-forties.

With the exception of the follow-up interview, the study was conducted from mid-November to one week before Christmas, 1990. To establish a basis for comparison across informants, we asked each one the same questions during the preliminary interviews. The first shopping trip occurred at least one week after the preliminary interview, so that we could acquire information about gift selection activity that we had not actually observed. As each of us became familiar with our informants' shopping tasks, we created specific questions relating to their tasks, a procedure similar to what Lincoln and Guba (1985) call "memoing."

TABLE 1
 "Difficult" People Specifically Mentioned by Informants

<u>Difficult People</u>	<u>Number</u>
In-Laws	10*
Fathers	7
Grandparents/ Elderly Relatives	7*
Steprelatives	6*
Mothers	4
Husbands	3
Sisters	3
Friends	3
(Opposite Gender)	
Friends	2
(Same Gender)	
Teachers	2
Other Affinal 2* Relatives (Niece, Cousin)	
Totals	47

*Affinal Relatives

The length of each shopping trip ranged from 1-2 hours. Informants chose the sites for all shopping trips. These included discount stores, department stores, drugstores, hardware stores and a wide variety of specialty shops.

RESULTS

Who Are the Difficult People on Gift Buyers' Christmas Lists?

Informants named 207 people as potential Christmas gift recipients. Of these, they specifically described 47 people as "difficult" recipients. Table 1 lists the relationships of these recipients to our informants. The largest number of difficult recipients are what Caplow (1984) terms "affinal" relatives, or people who are peripherally related to givers. However, a considerable number of more closely related family members were also considered difficult. Finally, some difficult recipients -- including friends and teachers -- are not related to informants at all.

Why Are Some Recipients Considered Difficult?

Our shoppers offered nine reasons why they categorized gift recipients as difficult:

1. *Perceived Lack of Necessity/Desire.* Almost one-fourth of "difficult" recipients were characterized as such because givers stated these people either did not want or did not need any type of gift. For instance, Anne¹ commented that her 94-year old grandmother has "got[ten] everything she ever wanted." Likewise, Betsy noted that her grandparents and her father were

difficult because they "have everything. There isn't anything I could buy them that they would want and wouldn't have. Or sometimes that they would even like."

2. *Fear of Being Unappreciated.* This category -- mentioned by seven of the informants -- emerged through descriptions of past gift choices that, in givers' opinions, had "flopped." Karen described her experience as follows;

K: One year my ex-husband and I, we made something for my Mom in the studio...between the two of us, we thought it was great. And as soon as we saw the look on my Mom's face, we knew that she didn't get it. It was a sculpture, she just didn't get it. We should have thought ahead of time, where is she going to put this, in terms of how she had decorated her environment.

Informants were also concerned with whether "difficult" recipients might appreciate gifts presented at the upcoming Christmas holiday. Patty commented on getting her husband a train set:

P: I want to get him something nice, and he doesn't want me to spend any money on him...Itold him it was a lot of money and he said,"Don't get me anything, don't get me anything." I said, "I'll go and get it and if you want to hurt my feelings and break my heart, and return it, then go ahead." He just laughed.

3. *Different Tastes/Interests.* Many recipients appeared problematic because their tastes and interests contradicted those of our informants. Hannah and Liz

¹All names have been changed to ensure anonymity.

both reported that their fathers' tastes were dissimilar enough to hamper their gift-buying efforts. Furthermore, the tastes of some "significant others" were cited as stumbling blocks to gift selection. Shopping with Kate, one of us observed:

[After looking at wrenches for her boyfriend, Kate] said she couldn't believe that her boyfriend wanted this, and what's more, that he would want her to buy it for him. She didn't know anything about them, couldn't he just buy them himself and let her get something else?

4. *Unfamiliarity with the Recipient.* Still other recipients were regarded as difficult because they were, for all practical purposes, strangers to informants. Many recipients described in this manner were affinal relatives, such as in-laws, cousins, uncles or stepparents. Karen described the dilemma of shopping for her stepfather as follows:

I don't know him very well. He married my Mom after I moved out. I like the guy, but he's my Mom's husband and I...after a certain amount of flannel shirts and tools, it's like...I just don't know what the man wants. So I find it very difficult to shop for him.

5. *Perceived Recipient Limitations.* We also observed that often, our informants regarded some aspect of a recipient's physical condition or personality to be a limiting factor in gift selection. For example, Anne described her boyfriend's mother in the following manner:

A: She's kind of an odd person...She doesn't do a lot...she can't drive, so she's at home all day. And what she does, she'll like sit on her bed and play cards...I, you know, have found so many things that could get her to do something and they don't work. It's like, I've just given up on that.

Other givers also discussed recipients' lack of hobbies as a stumbling block in the gift-buying process. Patty noted that her father "doesn't do *anything*...He's not into sports or anything, he really doesn't have a hobby -- except for sleeping. Get him a [sleeping] bag, I don't know."

Informants also mentioned that ill or elderly recipients were difficult to shop for. Furthermore, recipients who were passing from one stage of the life cycle to another were often categorized as "difficult." For instance, Rhonda noted that she "usually got her [mother] clothes for work but she was retiring soon, so that wouldn't be a good idea."

6. *Imposed Giver Limitations.* In contrast to the limitations described above were those imposed *a priori* on the gift-selection process by givers. Often, these took the form of pre-set spending limits. Lana, who had always spent just a few dollars on a gift for her niece, commented that "It was easy [staying in that price range] when she was little, now it's hard to find

[a] \$2-3 [gift] for a big girl." In addition, Hannah noted that she always had to choose "something small" for her father, because she mailed him his Christmas gift.

7. *Imbalance.* Desire for balanced gift exchange has been explored in the literature (c.f., Belk, 1976). For two of our informants, perceived imbalance appeared to explain why certain recipients were difficult. Betsy noted that because her in-laws always spent more on her and her husband for Christmas, she often found herself "going 'Oh God, what am I going to get them'?" Likewise, Patty described her husband's Christmas shopping as "very lavish, which is ironic...He just thinks it's OK to spend lots of money on you, but he doesn't want you to spend a lot of money on him."

8. *Personality Conflicts.* Many researchers (c.f., Barnett; 1954, Sherry and McGrath, 1989) have observed that the obligatory nature of much Christmas gift exchange may mean some gift-buyers find themselves buying gifts for people with whom they are experiencing conflict.

Our informants mentioned this situation five times. The most extreme example occurred with Anne. She had recently borrowed money from her grandmother. Unlike other relatives who had borrowed from her, Anne had to pay "dear old Grandma" back. Her bitterness over their arrangement could explain why Anne was so apathetic while shopping for her grandmother's gift:

After a few minutes of wandering [around the store] Anne said she needed to find domestics because that's where [a lap blanket] would be...She looked at all the various designs they had. They had some large ones which were more than she wanted to pay...Then she found one smaller lap blanket which was the price she wanted...She mentioned that would be "good enough."

9. *Thwarting of a Gift Selection.* While informants identified most "difficult" recipients early in the Christmas shopping season, some recipients appeared to "become" difficult when a gift idea that was either considered or actually purchased by an informant proved to be inappropriate. For example, Patty bought a stroller for her cousin, then learned that it was not the one on her cousin's list. Her frustration with this experience was revealed on the second shopping trip, when the researcher commented it appeared Patty was almost done shopping:

Patty agreed but said she was tired of the whole thing...She said she had just run out of steam and wasn't in the spirit of it at all. She mentioned that she was particularly frustrated about the stroller. She had even already thrown away [her cousin's] list and had to call her mother to find out what was on it.

What Strategies Are Used When Shopping for "Difficult" People?

Informants employed ten gift strategies when selecting gifts for difficult people.

Latching On. Of all the gift strategies used for difficult recipients, one we call "Latching On" occurred most often. With this strategy, the giver conducts fairly extensive external and/or internal search early in the Christmas shopping season, and then arrives at a gift idea for a recipient. Consumers mentioned using newspaper ads, catalogs, stores and the information they had in memory about the recipient as information sources. However, they rarely consulted interpersonal sources when employing "Latching On" for difficult people.

"Latching On" is so termed because once givers conceive of a gift idea, they focus their buying efforts upon finding an acceptable -- or even ideal -- representation of this idea. Furthermore, once an idea is generated by "Latching On," it is rarely discarded by the gift-buyer.

"Latching On" can take two main forms. "Same As Last Year" involves buying the recipient an item similar to something that the giver has purchased them previously. The rationale behind doing so stems from the fact that a previous gift has been well-received. For example, Liz describes how last Christmas, she gave an aunt who collected frogs a frog umbrella that had been her "favorite." This year, Liz looked at a stuffed frog, a frog perfume cachet, a frog whistle, a frog Christmas ornament, frog stickers and assorted frog jewelry before buying the stickers and a frog pin. Thus, "Same As Last Year" does not necessarily mean the giver *actually* duplicates a previous present, but rather that he or she offers the recipient a variation of it.

The second variation of "Latching On" was labelled "New This Year." Patty used this strategy when she saw a newspaper ad for a train set early in the Christmas season and thought it would be a "neat idea" for her husband. Over the next few weeks, Patty consulted numerous stores and ads, and compared prices for the set. In addition, because her husband did not want her to buy him an expensive gift, she actually negotiated with him so that she could spend more than usual. Thus, all of her activities for his gift centered around acquiring an item that she had seen in an ad early that Christmas season.

Impulse Purchasing We also observed that when some consumers shopped for difficult people, they appeared to almost grab items off of the shelves. These spontaneous urges to buy -- as well as recipients' excitement over what they had selected in this manner -- resembles what Rook (1987) calls "impulse buying." Yet informants also expressed some concern that an item they selected in this manner matched what they knew about the recipient.

We also observed that immediately before consumers employed "Impulse Buying," they experienced an instant recognition that a gift item in the store was appropriate for a difficult recipient. We called this phenomenon "sudden enlightenment." The following episode illustrates this occurrence:

[Karen] started talking about what she was going to get her brother and sister-in-law. She said that the only thing she knew [he] liked was boxing... I told her how we had just watched "Rocky" the night before. She kind of perked up and asked me how much movies cost. [We went into the movie store]...she was over in the music video section and she kneeled down. She picked up a video of the new "The Wall" concert...She stood up and said "That's it...Pink Floyd is one common interest that I know they have." [Total time: about 20 seconds.]

Making Gifts Many informants noted that making gifts was time-consuming, yet some stated they used this strategy for difficult recipients "out of desperation." This point is supported by the fact that often, informants did not begin making gifts for difficult people until close to Christmas. For example, Betsy could not decide what to give her son's teachers, and at the last minute made them food. Likewise, Rhonda decided two weeks before Christmas to make her father a lap blanket, but then did not have time to finish it. Thus, this strategy often seems to be a "last resort" for informants.

Pawning Off This strategy, used in four gift-buying instances, involved delegating the selection of gifts for a difficult person to someone else. For instance, Lana said that her husband "could figure out" what to get his brothers and uncles. Likewise, for the past few years, Jane let her children decide what to give their grandparents and teachers. And after two unsuccessful shopping trips, Andrew asked his girlfriend to pick out gifts for his female roommate because she "knew her tastes better."

Thus, "Pawning Off" can apparently take two forms. Namely, givers can either delegate the task of thinking of a gift idea, or they can delegate the entire search and purchase process as well.

Buy What I Like In using this strategy, informants simply bought recipients something they would like themselves. For instance, Hannah said she had no idea what to get her father for Christmas. During the shopping trips, she showed tremendous interest in tiny glass ornaments, often kneeling down at displays and telling the researcher exactly which ornaments she owned. On the last trip, Hannah told the researcher she was going to buy similar ornaments for her father.

Likewise, Kate said she had no interest in buying her boyfriend tools and other "practical things" he had requested. But she did buy him a magazine that she thought was cute and an ornament in a series that "they" were collecting (although she had purchased all of them).

Joint Recipients This strategy, in which one gift was selected that could be presented to more than one difficult recipient, was often used when the recipient was relatively unfamiliar to the giver. Karen used it when buying one gift for both her brother and sister-in-law. Likewise, Kate reported that she counted her boyfriend's parents as "one ...because I usually just try to get them one thing."

Recycling Two givers used the strategy of giving recipients items that they had bought for themselves, but for some reason had decided to discard. Apparently, this strategy was only used when the giver had little regard for the recipient. For example, Liz reported she did not get along well with her father. She later revealed that the shirt she had used for her Halloween costume was going to be her father's Christmas present. Likewise, Betsy was considering giving her husband's "old and mean" grandmother a scarf that she had bought for herself, but that her husband disliked.

Habitual Buying A few givers noted that they selected certain types of gifts for difficult people because they could not (or would not) think of anything else to get them. Rebecca stated that if she drew a man's name in the family gift exchange, she always bought him "a shirt...because there's nothing else to think of." Patty noted that she usually got her father tins of popcorn because it was one of the few things she knew he would like. This strategy differs from "Latching On," in that givers employ little or no new search when selecting these habitually purchased items.

Joint Giving One person used the strategy of actually "going in" with someone in her family to buy a gift for a difficult recipient. Specifically, because Rhonda's mother was retiring and no longer needed "clothes for work," Rhonda was at a loss as to what to buy her. During the second interview, Rhonda reported that her brother had "decided we should buy her a VCR for Christmas -- I was really relieved!"

Relationship-Affirming Gifts One giver chose gifts for difficult relatives that echoed or reaffirmed her relationship with them. For example, one shopping trip with Betsy revolved around trying to find a coffee mug that had the word "Grampa" on it. In addition, she gave her grandmother a suncatcher for her window. The poem on it began "Grandmothers are...."

INTERPRETATION

In examining the nature of the strategies we identified, it appears that they can be distinguished along two main dimensions. The first of these is whether a gift-selection strategy is more recipient- or giver-centered. Specifically, different strategies are apparently used, depending upon whether a gift idea is more influenced by the giver's or the recipient's desires. Thus, this is similar to Belk's (1979) distinction between self-directed and other-directed giving.

The second dimension that differentiates these strategies is whether the strategy helps the giver more to minimize social risk or psychological risk. Heeler, et al. (1978) note that the perceived social risk in a gift-buying relationship is in large part due to "the pressure to be perceived well in a close continuing relationship" (p.326). However, perceived psychological risk has yet to be defined for a gift-buying situation. Given the complexity of the Christmas shopping task for our informants, we define psychological risk as the perceived level of internal discomfort that a gift-giver experiences when he or she must grapple with an onerous buying task.

Figure 1 depicts how the gift selection strategies used for difficult people can be arranged with respect to these two dimensions. While it is likely that social and psychological risk are present in every gift exchange, it appears that consumers shopping for difficult people select a strategy that helps them minimize one type of risk over the other. For example, those strategies that help consumers select a gift acceptable to the recipient involve either extended search (e.g., Latching On), or some sort of personalization of a gift. Simply put, it would seem difficult to reject a gift such as a "grampa" mug, because to do so might be interpreted as rejecting the relationship as well.

Likewise, those giver-centered strategies that involve the lessening of the gift-buying task tend to result in either delegation of gift selection (Pawning Off or Joint Giving) or minimizing the effort of gift selection. Indeed, the most extreme form of minimizing, Recycling, involves skipping the purchase phase of gift selection entirely.

As would be expected, strategy use will vary greatly, depending upon the nature and salience of the giver/recipient relationship. It is therefore not surprising that the more demanding types of gift selection strategies -- in terms of search effort -- are usually used when the relationship with the recipient is more salient to the giver. Likewise, shoppers used those strategies that delegate or minimize gift selection for relatives who were less closely related or for people with whom they were experiencing conflict.

Several questions arise from our interpretation. First, it is unclear whether a recipient is categorized as difficult *before* a consumer attempts to use a gift-selection strategy, or after he or she attempts to use a strategy that then proves to be inappropriate. One clue stems from the fact that many of our informants appeared to have a favorite strategy for selecting Christmas gifts. Thus, a recipient might become "difficult" when a giver realizes that use of a preferred strategy would not result in an appropriate gift.

IMPLICATIONS

Many findings of this study should interest consumer behaviorists, marketers and consumers alike. Above all else, it appears that the Christmas buying task is a much more complex phenomenon than has been previously described. Furthermore, consumers may consciously or unconsciously weigh the social and psychological risk involved in buying a gift for each recipient on their list. They then employ a strategy that helps them to both select a gift and to alleviate what they perceive to be the most burdensome type of risk for that particular situation.

And it appears that there is a tendency for certain types of people -- e.g., in-laws, stepparents and other affinal relatives -- to be labelled as difficult. This categorization appears to stem from a lack of familiarity or communication with the recipients. As such, retailers and marketers might target their efforts toward helping customers buy gifts for these types of people. Indeed, one reason that consumers may curtail search when buying for "difficult" relatives is that

FIGURE 1
Gift Selection Strategies Used for Difficult People

	Alleviates Social Risk	Alleviates Psychological Risk
Source of Gift Idea	Latching On (New This Year)	Pawning Off
Giver's Taste	Relationship- Affirming Gifts Making Gifts	Buy What I Like Joint Recipients Recycling Joint Giving
Recipient's Taste	Latching On (Same as Last Year)	Impulse Purchasing Habitual Buying

advertising and marketing communications may not specifically help givers select gifts for them. Finally, it appears that consumers themselves might be able to ease the burden of Christmas shopping by taking matters into their own hands -- by actively seeking to enhance communication with those familiar with the needs and wants of gift recipients, or with the recipients themselves. Indeed, those gift-buyers who did so appeared to have fewer difficult people on their Christmas lists.

CONTRIBUTIONS AND LIMITATIONS

Our study: 1) explains the choice of gift selection strategy for difficult people both in terms of the origin of the gift idea and the type of risk the giver seeks to minimize; 2) reveals that Christmas gift selection strategies do not always involve the actual purchase of a gift; and 3) is the first examination of Christmas gift selection to enlist informants in a naturalistic setting, so that we can both observe gift selection processes and confirm our observations about such processes with informants. However, our study also had the following limitations: 1) we obviously could not observe every gift-selection incident that occurred; 2) our sample was comprised primarily of female middle-class shoppers; and 3) the informants that answered our ad obviously had an interest in our study, and in many cases appeared to resemble what Bellenger and Korgaonkar (1980) call "recreational shoppers." Thus, we may have examined gift selection behavior among people who invest more time and effort in Christmas shopping than is typical.

SUMMARY AND CONCLUSION

This study examines the gift-selection strategies used by Christmas shoppers for potential gift recipients who were labelled "difficult". The reasons why recipients were placed in this category were examined. We argue that the choice of gift

selection strategy depends upon the choice of the giver to minimize either perceived social or psychological risk and upon the nature of the giver/recipient relationship.

We believe that our examination of Christmas gift-selection strategies has provided new insight into the most complex gift-giving occasion in America today. Hopefully, other researchers will continue exploring the issues that arose from this study.

A list of references is available on request from the authors.

Thanks But No Thanks: Rejection, Possession and Disposition of the Failed Gift (Abstract)

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As illustrated in the model constructed by Sherry (1983), the gift giving process may be divided into three stages, namely, gestation, pre-station and reformulation. While a good deal of research has been directed at gaining an understanding of the first two stages, little attention has been paid to the third, including disposal of items. In fact, disposition of possessions from any source has been a generally overlooked area with a few notable exceptions (e.g., Belk, Sherry and Wallendorf 1988; Herrmann and Soiffer 1984; Jacoby, Berning and Dietvorst 1977; Soiffer and Herrmann 1987; Young and Wallendorf 1989).

The present study used interview data from 154 subjects to characterize the negative gift exchange experience and determine what actions are taken when the gift is not a wanted item. Gift disposition themes drawn from these interviews were then compared with general disposition themes reported in previous literature.

A classification of gift failures by product type indicated that clothing was mentioned most often as the worst gift received, followed by decorative household objects. The most frequent complaint was wrong style, followed by wrong color and fit. Although most of the complaints about gifts of clothing were directed toward specific attributes of the items, some respondents objected to the general concept of clothing as gift. Clothing was faulted as too utilitarian to be an appropriate gift.

Another classification was by relationship of the giver to the recipient. Three categories were formed, i.e., nuclear family, extended family and nonfamily. Overall, more failed gifts came from nonfamily than either nuclear or extended family members. However, most of this difference could be attributed to respondents in one ethnic category.

Ways in which respondents dealt with unwanted gifts included placing the item in storage, giving it to someone else, returning it to the retailer, and rejecting/returning it to the giver. At the time of the interviews, over 75 percent of the respondents still had the unwanted gifts in their possession. The data provided support for Young and Wallendorf's (1989) "Transition to Disposition" theme in that several respondents seemed to evaluate their connectedness to the giver and the gift before making a decision to transfer the items out of their inventory. There was also evidence for the "Disposition as Communication" theme. Some respondents noted that disposal could communicate disrespect for the giver whereas others worried about how passing along an undesirable gift would reflect on their own taste level.

Not being able to identify the store where the gift was purchased or not being located close to it were major impediments to exchanging an item for something else. In addition, respondents seemed to set a value below which going to a store was not worth the effort.

Respondents who did take their unwanted gifts back to the store mentioned several problems encountered in using this method of dealing with the items. As Corrigan (1989) found in his study of product distribution patterns, the site from which the gift was selected, as well as the gift itself, may be unacceptable to the recipient. Even if the store was considered to be an acceptable place to shop, inventories were generally low following a holiday, making it difficult to find a suitable replacement for the returned item. Several strategies are proposed to facilitate the gift return process for both the recipient and the retailer, including the establishment of some type of gift exchange clearing house.

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Special Session Summary

Consumer Behavior Research and its Implications for Product/nutritional Information Programs

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SESSION PARTICIPANTS

Characteristics of Successful Product Information Programs

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France Leclerc, Massachusetts Institute of Technology

Individual Differences in Consumers' Willingness to Use Nutritional Information

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The Effects of a Public Nutrition Information Program on Consumer Behavior: The Case of Informing the Public About the Risks of Dietary Fat"

Daniel S. Putler, Purdue University
Elizabeth Frazao, USDA

Nutrition Knowledge Levels about Dietary Fats and Cholesterol: 1983-88

Alan S. Levy, Food & Drugs Administration
Marilyn Stephenson, Food & Drugs Administration

Insights from Multiple Methods Regarding Food Consumption

Melanie Wallendorf, University of Arizona

SESSION OVERVIEW

On November 8, 1990, Congress updated the 1973 Food and Drug Administration nutritional labeling rule (Public Law 101-535). Previous to this law, the FDA only required a nutritional label on supermarket items when a company made a nutritional claim for a product. The label had to include information about the calories, sodium, fat, protein, and carbohydrates in a single serving. In addition it had to list the percentages of the USRDA for protein, five vitamins, iron and calcium. The new law requires label listing on more food items and more information about more ingredients.

This special session addressed two important and controversial questions about public nutrition programs. *First, what should be the consumer behavior objective of such programs?* This is an important but unresolved issue because the answer affects the criteria we use to evaluate such programs. One can ask whether these programs should simply attempt to increase the public's awareness about the value of nutritional information? Alternatively one can ask whether increasing consumer knowledge should be a goal? Finally, should we expect consumer eating behavior to change in a desirable way as a result of the public nutrition programs?

Second, what factors influence whether or not public nutrition programs work? The costs and benefits consumers perceive from using nutritional information are some important factors. Other influencing factors include individual difference variables (such as age, education, and social group). In addition, because food means more than just nutrition, these programs may not successfully change behavior even if they increase awareness and knowledge.

We brought together researchers who have attempted to answer these and related questions. The backgrounds of these researchers are rich and diverse, as are the methods which they have employed in the studies included in the session. These methods included literature reviews, surveys, experiments, econometric analysis, and household refuse analysis.

SESSION SUMMARY

The Russo and Leclerc research set a framework for the session by presenting results from a review of 28 field-tested product information programs. Their review revealed the characteristics that distinguish successful from unsuccessful programs. Programs which successfully change consumer purchase or consumption behavior are associated with increases in information benefits and decreases in processing efforts. They may also incorporate consumer input, especially through goal setting. In contrast, hortatory reminders to consumers that neither provide new benefits nor reduce costs are unsuccessful. Similarly a program's magnitude per se is unrelated to its success. The speakers concluded that a cost-benefit analysis of information use from the consumer's perspective should guide the design of product information programs.

Cole and Balasubramanian presented evidence from a preliminary field experiment. In this study, they observed shoppers who were selecting cereals in a supermarket. They told half the shoppers to select a cereal that met certain nutritional constraints; they gave no instructions to the other half. In the no instruction condition, most consumers were satisficers, selecting the first cereal that they inspected. These consumers virtually ignored the nutritional panel on the cereal. In a subsequent interview, most consumers could not recall much nutritional information about the cereals that they had just selected. When the researchers gave consumers the decision rule, they found that elderly consumers searched less extensively and made poorer choices than younger adults. However, accurate nutritional recall improved significantly for both age groups. Apparently to be successful, nutrition programs cannot simply make more nutritional information

available. Rather, in order to change buying behavior, programs need to instruct the consumer on how to use the information. In addition, these programs may need to provide additional instructions to groups such as elderly consumers. For example, dietitians might suggest that consumers write relevant information down.

Putler and Frazao noted that prior researchers have not assessed how public nutrition programs affect consumers' total diets. To remedy the deficiency, they studied changes in fat intake between 1977 and 1985, during public information campaigns on the fat/heart disease and cancer link. Consumers who are more aware of the relationship between fat intake and chronic disease have made relatively greater changes in their dietary sources of fat through time. However, the same consumers did not reduce their fat intake to a greater extent than consumers with lower awareness levels. This suggests that increases in diet/disease awareness have not translated into effective dietary changes. The authors speculated about reasons for this contradictory behavior. In addition, they made suggestions for improving the efficacy of public nutrition information programs.

The Levy and Stephenson study discussed findings from national telephone surveys conducted jointly by the Food and Drug Administration and the National Heart, Lung and Blood Institute in the 1980's. There has been a dramatic increase in consumer awareness of dietary fats and cholesterol as risk factors for chronic disease. However, there has not been a parallel increase in consumer knowledge levels about how to implement the dietary recommendation to eat less fat. For example, many people do not know what kinds of foods contain saturated and unsaturated fats, nor do consumers understand their co-occurrence in foods. In addition, consumers have substantial problems when they try to draw inferences from common label claims about dietary fats and cholesterol. The most knowledgeable consumers are more educated than less knowledgeable consumers. These results suggest that there is a gap between consumer awareness and effective dietary change. Consumer education initiatives that supply skills and knowledge could bridge the gap but these initiatives should also be easily accessible and understood. (Levy and Stephenson recommend broadcast media for the less-educated population groups.)

Wallendorf noted that a variety of research methods can be used to study food consumption including surveys, direct observation, participant observation and content analysis of household refuse. Each method contributes particular insights on consumers' beliefs about and practices regarding food and nutrition. Use of multiple methods can contribute to a deeper understanding of the confluence of consumer statements (e.g., "I am very concerned about nutrition") and seemingly contradictory consumer behaviors (e.g., observation of the person eating chocolate cake with a cup of coffee). This presentation relied on empirical reflections on these different methods to produce a set of guidelines regarding the contributions and problems of each research approach.

Future researchers should be especially careful to allow for differences across social groups (e.g., social classes, ethnic group).

CONCLUSION

This session has provided some answers to questions which arise now because of the 1990 update of the Food and Drug Administration nutritional labeling law. First, these programs should not simply try to increase the public's awareness of the value of nutritional information. Consumers need education regarding both nutritional facts and how to use that information when selecting foods, if buyer behavior is to be affected. Second, makers of public nutrition programs should be aware of factors which influence how these programs work. Specifically, target market characteristics such as age, education and social group should be considered. In addition attention needs to be paid to the market's perceptions of the costs and benefits of using nutritional information. Finally, programs are more likely to be successful if the programs explicitly recognize the expressive role that food plays in consumers lives. When future investigators assess program effectiveness, they should employ multiple research methods.

Influence of Problem Recognition on Search and Other Decision Process Variables: A Framework for Analysis

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ABSTRACT

Though Problem Recognition (PR) is a critical phase of the consumer decision making process, it has been relatively under-researched. Since PR frames the problem-solving situation, the remaining stages in the purchase decision are dependent on it. An analytic framework of problem recognition, consisting of four segments -- "new need," "product depletion," "expected satisfaction" and "current dissatisfaction" -- is proposed. A sample of 1056 new car buyers is used for empirical validation. The "new need" and "product depletion" groups differ significantly from the others in terms of several pre-search, search, alternative evaluation and satisfaction variables.

INTRODUCTION

The problem recognition stage in the consumer decision making process has been generally regarded as the event or "trigger" that initiates a purchase decision. It is the precursor of all consumer-initiated activities, such as pre-purchase information search, evaluation and choice processes, preceding any transaction. The idea that initial consumer actions affect future ones is both simple and intuitively appealing. First, the problem recognition phase frames the problem-solving situation. Second, other stages of the decision making process sequentially linked to the problem recognition stage have a dependent relationship with it. Hence we can expect this stage to have a crucial influence on all subsequent decision process activities. Surprisingly, despite the potential significance of the problem recognition phase, it continues to be an area of limited research (Bruner 1985; Bruner and Pomazal 1988), though its importance is recognized in most models of consumer behavior (Howard 1989; Engel, Blackwell and Miniard 1986; Wilkie 1990).

Some of the difficulties associated with problem recognition (PR) research appear to be the consequence of an inadequate theory of problem recognition and hardly any empirical specification of the construct. In this paper, we present an exploratory study which attempts to address both these issues to some degree. Given the preliminary nature of this investigation, we propose and test a theoretical framework of PR. We validate the proposed framework rather than test specific hypotheses.

First, we specify a theoretical framework of the problem recognition process, drawing upon previous PR research (Dewey 1910; Bruner 1986, 1985; Bruner and Pomazal 1988; Sirgy 1983) and existing descriptive concepts in consumer decision making models (Howard 1989; Engel, Blackwell and Miniard 1986; Hawkins, Best and Coney 1989; Wilkie 1990). Second, we attempt to validate our framework of the PR process using data from a large sample of new automobile buyers. The results of the empirical test

are then used to modify our framework of problem recognition.

PREVIOUS RESEARCH

Previous research on PR tends to view the construct in a variety of ways. For instance, Engel, Kollat and Blackwell (1968) describe PR as being caused by a significant difference between a desired state and an actual state, with respect to a particular want or need. While such a conceptualization is useful in understanding PR as the event or "trigger" initiating the consumer decision process, the operational aspects of the precedents to problem recognition, such as the definitions of the 'actual' and 'desired' states and their relative strengths are left unspecified. Similar descriptions of the PR construct are offered by Wilkie (1990) and Hawkins, Best and Coney (1989).

An abstract conceptualization of PR is provided by Sirgy (1983) who regards the construct as representing a homeostatic process disrupted whenever there is a significant incongruity between a "perceptual stimulus" and an "evoked referent." Also, a distinction is offered between problem and opportunity recognition. Essentially, a consumer is perceived to be vigilant and aware of the 'actual,' 'desired' and 'available' states. Bruner (1985, 1986) makes a contribution to our understanding by regarding the fulfillment of the discrepancy between the "desired" and "actual" need states as a matter of consumer style, rather than the manifestation of particular situations i.e. problem recognition is a person-specific construct, rather than a situation-specific construct. Bruner and Pomazal (1988) attempt a comprehensive model offering a process view of the PR construct, using the earlier conceptualizations. However, in their attempt at providing a detailed cognitive understanding of the PR process, they offer a model that cannot be easily specified and tested.

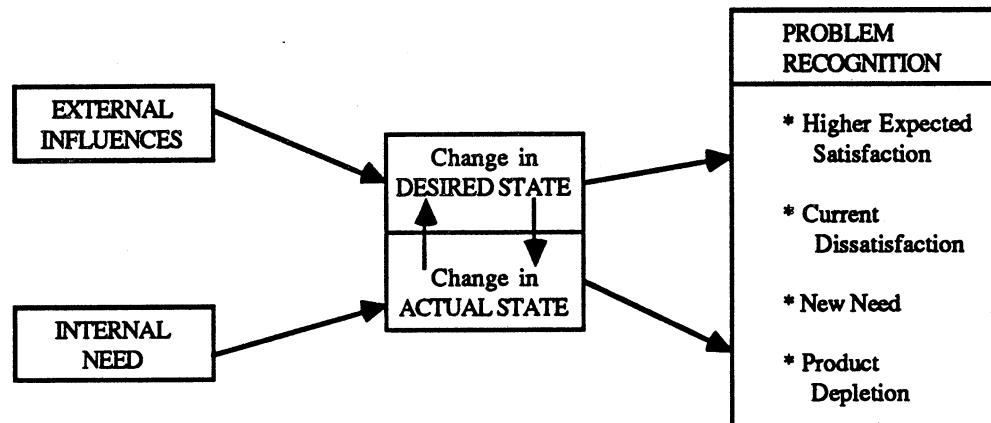
TOWARD A FRAMEWORK OF PR

A primary consideration in developing a framework for the PR process is the recognition that the framework be empirically testable to encourage further theoretical developments. A starting point would be a parsimonious conceptualization that retains the essence of the elaborate cognitive descriptions of the construct.

A second criterion deals with the importance of incorporating both the internal states of the consumer and the overt actions in depicting the PR phenomenon. Taking both aspects assists in developing an actionable framework of PR useful in developing marketing strategy.

A final consideration relates to the importance of linking PR to other aspects of the decision process. Ideally we would expect our framework to be both descriptive and predictive of the subsequent constructs

FIGURE
A Framework of Problem Recognition



and processes. However, the degree to which this might occur could vary across different purchase contexts.

Based on these considerations, we assume that PR may be regarded as a cognitive event that is simultaneously manifest as an overt action representing the start of the consumer decision process. We acknowledge that several perceptual and motivational sub-processes are likely to lead up to the PR event but these are appropriately viewed separately as they are quite different in character. Such a conceptualization allows us to consider PR as a construct rather than a process, thus providing an useful anchor for formulating an analytic framework.

A FRAMEWORK OF PR

A framework of PR is shown in the Figure. The main theoretical proposition in our framework is that the nature of the occurrence of the PR event influences the cognitive and physical resources utilized for the subsequent stages of the consumer decision processes. The cognitive and physical resources are measurable in terms of typical decision process activities such as the nature of presearch decisions, the amount of information search, decision time, usage of a purchase pal, etc. Thus corresponding to "routine" PR events such as replenishment, we can expect "routine" decision activities with a low degree of search, and in new purchase contexts, the expenditure of cognitive/physical effort would be akin to "extended problem solving" i.e. a greater degree of effort and decision time.

The second theoretical proposition in our framework is that the perceptual and motivational sub-processes which precede the PR event are predictive of it, thus providing an understanding of how and why various PR events differ from one another.

A third proposition in our framework refers to the role of long term memory in determining the decision process activities triggered in response to various manifestations of the PR event. We suggest that the latter serve as important retrieval cues in

facilitating the remaining steps in the purchase decision.

Finally, we posit that the nature of the PR event influences the criteria consumers use in assessing satisfaction with the purchase decision. For some contexts these criteria are likely to be of a satisficing nature, but not so for others.

Consistent with the literature, the present framework of problem recognition proposed in this paper assumes that the PR event occurs in response to a discrepancy between a desired state and an actual state with respect to a consumer need (generic PR) or want (selective PR). We may not be able to empirically distinguish between needs and wants because this difference merely influences the scope of the decision, and not the nature of it. Further, we assume that the desired state is typically influenced by external factors (i.e. culture, social class, reference group, lifestyle, household and marketer influence) while the actual state is generally influenced by factors internal to the decision maker (i.e. motivation, learning, memory, personality, etc.) The above partitioning is obviously a simplification, but it is consistent with those frequently used in understanding the multitude of influences on consumer decision processes (e.g. Hawkins, Best and Coney 1989). Furthermore, it parallels the distinction often made between the controllable and uncontrollable determinants of PR, from the viewpoint of a marketer.

In understanding the influence of the actual state with respect to a need/want on the PR event, we can see that there are basically two sets of internal circumstances that are likely to trigger the decision process. The first has to do with the depletion of the current product corresponding to a existing need/want, whereas the second relates to dissatisfaction with the current state or product performance. Turning to the influence of the desired state corresponding to a need/want on the PR event, we similarly find two major external conditions initiating the consumer purchase decision. The first condition relates to acquisition of a product representing a completely new

need/want, while the second corresponds to the possession of products promising higher satisfaction than the current one.

It is important to recognize that the time element (Bloch, Sherrell and Ridgway 1986) corresponding to both the depletion of current product and the acquisition of a product corresponding to new need is not explicitly modeled in our framework. For instance, in the former case the depletion can be sudden (like in a product failure/ breakdown) or more routine (like in planned replacement). In the latter instance, the acquisition could also be sudden (like in an impulse purchase) or more contemplative in nature. The incorporation of this time effect in our framework awaits additional research (see Bayus 1991 for current work in this area). Additionally, it is possible that the time effect is also related to the magnitude of the discrepancy between the desired and actual states, thus leading to the classification of certain consumer purchase problems as "active" or "inactive" (Hawkins, Best and Coney 1989). However, this is again in the realm of future research.

Hence our framework of PR proposes that discrepancies between desired and actual states is driven by completely new or routine product purchases at the extremes and by existing dissatisfactions (with current products) or potential satisfactions (with new products) at intermediate levels. It is important to note that the above four part categorization of the PR event captures the essence of the broad range of causes of PR currently considered in the literature (Wilkie 1990; Hawkins, Best and Coney 1989; Bruner and Pomazal 1988). Yet, it provides a parsimonious and empirically verifiable formulation of the first stage of the consumer decision process, as shown in the Figure.

DATA

The data used in this research were collected as part of a study of new car buyers in three geographically separate metropolitan markets. The sample consisted of households that had recently purchased a new automobile for personal use. A stratified sample (by make of car) was drawn from all new car registrations in the markets during a particular time period, and was obtained through R.L.Polk & Co. Potential respondents were contacted by telephone to solicit their participation in the study --and also to ensure that they belonged in the sampling frame. Approximately 2400 questionnaires were mailed to households that could be contacted via phone and 1056 usable responses were received, representing a 44% cooperation rate.

Prior to their use in the analyses, the data were subjected to a series of extensive consistency tests to identify biases that would require correction during the analyses phase. In almost all instances the data held up well to the verification checks. (For more details of the data, please refer to Punj and Staelin 1983).

TESTING THE FRAMEWORK OF PR

The main variable in this study is PR. Four groups corresponding to the Figure were formed. Details of the formation of these groups and

operational specifications of the other variables used in this study are given below.

Problem Recognition (PR): We recoded nine specific categories (and the open ended responses) which best described the reason that led people to think about buying their new car, into the following four PR groups, corresponding to the framework of PR presented earlier. Presenting respondents with the major possible PR scenarios and asking them to identify with the most applicable in their case appears to be a reasonable method of assessment. The task is simple and recall did not appear to be a problem.

Group I: *HIGHER EXPECTED SATISFACTION*

- * Had a car but wanted one more.
- * Old car ran fairly well, but the *new models had better styling.*
- * Old car ran fairly well, but could get *better gas mileage* with a new car.

Group II: *CURRENT DISSATISFACTION*

- * *Old car needed repairs too often* and was not reliable.
- * Old car ran fairly well, but *if it broke down, it would not be worth fixing.*

Group III: *PRODUCT DEPLETION*

- * *Old car stopped running* and had to be replaced.
- * Old car ran fairly well, but *it is best to trade every two or three years.*

Group IV: *NEW NEED*

- * Old car ran fairly well, but *wanted a car for a different purpose* -- recreation, hauling things, carrying more people (or fewer people).
- * *Did not have a car* and wanted to get one.

The sizes of the segments were appreciable, as seen from the Table. The four PR groups (labeled as Expected Satisfaction, Current Dissatisfaction, Product Depletion and New Need groups hereafter) account for 24%, 43%, 19% and 14% respectively. A fifth of the market (PRODUCT DEPLETION segment) is seen to exhibit regularity in product purchase. Two out of three buyers (combining the EXPECTED SATISFACTION segment and the CURRENT DISSATISFACTION segment) are susceptible to product promotions/new product introductions at any time. Apparently, a lot more buyers express dissatisfaction with the state of the currently owned car, compared to the buyers who can be attracted into the market with promise of new potential benefits, such as improved styling, new product features, design, etc.

The remaining variables examined in our study were split into four categories corresponding to the well known stages in the consumer decision making process:

- (a) Presearch Stage: This included the number of makes which consumers were willing to

TABLE
Results of Oneway Analysis on PR Groups

Variables	Problem Recognition Groups				Findings
	Expected Satisfac I	Current Dissatis II	Product Depletion III	New Need IV	
Size of Segment	228	399	176	133	—
NMAKES	3.10 (2.1)	3.13 (2.1)	2.61 (1.8)	3.40 (2.0)	a
PREDEC	1.32 (1.0)	1.28 (1.0)	1.70 (1.1)	1.10 (1.0)	a
DEC.TIME	2.55 (1.1)	2.71 (1.2)	2.02 (1.0)	2.59 (1.1)	a
ACTVTS	6.62 (2.6)	6.45 (2.6)	5.22 (2.9)	6.92 (2.4)	a
NON.STOR	17.2 (18)	17.7 (19)	14.6 (19)	19.6 (27)	b
RTL.SEAR	8.60 (8.9)	8.61 (9.8)	6.66 (7.8)	11.7 (11.8)	a,c
PUPL.USG	1.35 (0.9)	1.44 (1.1)	1.39 (1.0)	1.52 (1.2)	d
NBRNDS	3.63 (2.5)	3.94 (3.1)	3.30 (2.4)	4.80 (4.0)	c,e
RTL.VSTS	4.54 (3.3)	4.64 (3.8)	3.90 (3.1)	6.02 (5.2)	c,e
FNL.CER	5.82 (0.9)	5.85 (0.9)	6.02 (0.8)	5.77 (1.1)	a
SATISFAC	5.52 (1.3)	5.47 (1.3)	5.68 (1.3)	5.41 (1.4)	d

Standard deviations are shown in parentheses below the means.

a: Group III is significantly different ($p < 0.05$) from the other three groups.

b: Group III is significantly different ($p < 0.05$) from Group IV.

c: Group IV is significantly different ($p < 0.05$) from the other three groups.

d: No two Groups are different ($p < 0.05$).

e: Group II is significantly different ($p < 0.05$) from Group III.

consider seriously and the degree of predecisions about manufacturer/dealer at the start of the information search process.
(b) Information Search Stage: This consisted of the length of time from serious consideration of purchase to the actual purchase; the count of several search activities; the pattern of search, such as dealer/non-dealer; and use of others to assist in the decision process.

(c) Alternatives Evaluation Stage: This dealt with the number of models examined and the number of retail visits made, and finally
(d) Postpurchase Stage: We examined the self rating of buying performance and the satisfaction with the new car purchased.

Details of the operational specifications of the above variables are described below:

Number of Makes willing to consider for purchase (NMAKES): Respondents were queried as to the makes they were willing to consider buying, before visiting any dealer. The multiple choice format considered divisional level makes, such as Buick, Cadillac, Chevrolet, Dodge, Ford, Lincoln, Mercury, Oldsmobile, Plymouth, Pontiac, Honda, Toyota, etc. It is assumed that the NEW NEED group would be willing to consider more makes compared to those who engage in replacement purchases. Also, the EXPECTED SATISFACTION group may be expected to have a smaller latitude of acceptance compared to the CURRENT DISSATISFACTION group, since the latter would probably eliminate only their current make and show greater acceptance of the other alternatives in the market.

Degree of Pre-Decisions made (PREDEC): Responses to queries about whether manufacturer/model/dealer were known at the beginning of the search process were categorized into the following four groups: (a) Nothing was predecided, (b) Manufacturer pre-decided (like GM, Ford, etc.), (c) Specific make or dealer pre-decided, and (d) both the specific make and dealer were predecided. It may be expected that the PRODUCT DEPLETION group would exhibit the highest degree of pre-decisions compared to the other groups, whereas the NEW NEED group would show the least amount of pre-decision making.

Purchase Decision Time (DEC.TIME): The elapsed time between first considering a car purchase seriously and the actual purchase was recoded into the following four categories: (a) Less than a month (b) Between 1 and 3 months (c) Between 3 and 6 months, and (d) More than 6 months. Once again, we expected that the NEW NEED group would take the longest time for the purchase decision since it is a new problem-solving situation. The PRODUCT DEPLETION group which may be expected to have engaged in a lot of prior planning would take the least time for making the purchase decision.

Search Activities (ACTVTS): Count of the participation in the following activities: (a) Talking to friends/relatives about new cars or dealers (b) Reading books and magazine articles (c) Reading advertisements in newspapers and magazines (d) Reading about car ratings in magazines (e) Reading automobile manufacturer brochures and pamphlets (f) Driving to and from dealerships (g) Looking around the showrooms (h) Talking to salespersons and (i) Test driving cars.

The NEW NEED group may be expected to engage in the greatest degree of search and the PRODUCT DEPLETION group the lowest, due to the greater degree of prior deliberation in the latter case. It is difficult to make a distinction between the EXPECTED SATISFACTION group and the CURRENT DISSATISFACTION group since the source and degree of the dissatisfaction is unknown.

Non-store search (NON.STOR) is the difference of the total hours spent in information search and the time spent at dealerships. For the major part, it may be taken to reflect the effort spent in gathering of general or preliminary information about models

considered suitable for purchase. Generally, the decision about the make/model has to be made by a consumer before entering a dealership. Of course, the gathering of non-store information does continue concurrently while going through the process of dealer visits. Non-store information sources includes all non-dealer sources, such as friends/relatives, advertisements, brochures and auto ratings in magazines. Time is assumed to be a common denominator for measuring the effort expended across a variety of sources which may require differential cognitive resources.

Once again, we expect the NEW NEED group to spend the greatest effort in non-store search, since past experience may not be available to play a compensatory role, while the PRODUCT DEPLETION group would spend the least time due to better preparedness. The EXPECTED SATISFACTION group may conduct less non-store search compared to the CURRENTLY DISSATISFIED group, but as explained earlier, this depends on the nature and scope of dissatisfaction.

Dealer Search (DLR.SEAR) is the aggregate time, in hours, spent in visiting dealers. This represents focused search since dealer visits occur during the later part of the car buying process, usually after one has narrowed down the choice to some specific model(s). While some dealer visits may be made for information gathering or assessing the suitability of any model considered, some other visits might be accounted for by price shopping behavior. Non-Store search and Dealer Search constitute the pattern of information search considered in this paper and represent a dimension different from the degree of information search.

The NEW NEED group is expected to have the highest number of dealer visits due to the extensiveness of the decision process necessary whereas the PRODUCT DEPLETION group would have the lowest. The EXPECTED SATISFACTION group may be expected to be lower than the CURRENT DISSATISFACTION group if particular and desired feature(s) are not readily available.

Use of a purchase pal in the decision process (PUPL.USG): This is a dimension not commonly studied due to the assumption that the decision making is done by individuals, for the most part. However, it may be a joint decision to some degree, involving significant others such as friends/relatives/mechanics outside the immediate family. Respondents were queried whether such a purchase pal helped in deciding the new car to buy. It is a binary measure and does not capture the degree to which there was reliance on the purchase pal. It is possible to conceive of the PRODUCT DEPLETION group to have the least necessity of depending on someone to assist in the purchase decision, whereas the NEW NEED group would probably seek outside assistance. As before, the other two groups may not be distinguishable.

The number of models shopped for (NBRNDS): The respondents were queried on the number of models seriously considered for purchase during each dealer visit. NBRNDS is the aggregate of all the models shopped for during all the dealer visits. The NEW

NEED group is expected to have the highest number of models shopped for, because of less prior knowledge. The PRODUCT DEPLETION group is expected to have the fewest NBRNDS since the search process was initiated much earlier, compared to the other groups.

Number of retail visits (RTL.VSTS): This captures the store dimension found in studies investigating search across stores and brands. Consumers might be shopping for the same model across dealers or shopping for different models at the same dealer. Since the former is more likely, this measure can be expected to reflect inter-store shopping. The PR groups are expected to show a similar pattern, as discussed for NBRNDS.

Certainty about the purchase (FNL.CER): Buyers were asked to assess how good a buy they thought they had gotten when they first rode in the new car after the purchase. The response was gathered on a 7 point scale (1 = Worst buy, 7 = Best buy). We did not have any expectations on how this variable would differ across the PR groups.

The overall satisfaction with the decision made (SATISFAC) was measured on a 7 point scale (1 = Totally dissatisfied, 7 = Totally satisfied). We expected the NEW NEED group to have the lowest satisfaction due to cognitive dissonance, while the PRODUCT DEPLETION is expected to show the highest satisfaction, given prior purchasing experience. Relative to the CURRENT DISSATISFACTION group, we expected the EXPECTED SATISFACTION to have a greater score since this is the motivation driving the purchase for this PR group.

ANALYSIS AND DISCUSSION

Essentially, we were interested in determining whether there were any differences among the four PR categories, in terms of the patterns of relationships identified in the previous section. Hence, several one way analysis of variance were conducted to identify significant differences across the PR groups. Also, the mean and standard deviation for each variable across groups are shown in the Table.

The empirical results provide encouraging support for the PR framework postulated in this paper. At the extremes, the NEW NEED group and the PRODUCT DEPLETION group stand out distinctively. However, the EXPECTED SATISFACTION and the CURRENT DISSATISFACTION groups do not show any statistical significance ($p < 0.05$) between them. The nature and scope of dissatisfaction could be a reason for this finding.

To illustrate the results, consider the pre-search stage variables (NMAKES and PREDEC). As expected, the PRODUCT DEPLETION group shows the smallest value for NMAKES ($m = 2.61$, $s.d. = 1.8$). The other three groups differ significantly ($p < 0.05$) from this group, but not among themselves. The degree of pre-search decision making (PREDEC) follows an identical pattern, demonstrating consistency.

In terms of the alternatives evaluation stage, the results are stronger. The PRODUCT DEPLETION group differs significantly from the other three groups (for NBRNDS, $m = 3.30$, $s.d. = 2.4$). So does the NEW

NEED group (for NBRNDS, $m = 4.8$, $s.d. = 4.0$). The directional expectation of the means is most evident in this stage.

The most surprising finding in our study is that all the four PR groups do not differ significantly in terms of the satisfaction (SATISFAC) with the new car they bought. All's well that ends well? As long as customers engaged in whatever they deemed necessary and sufficient under the circumstances, which they appear to be controlling for, then they are satisfied with the new purchase made.

The findings indicate that the EXPECTED SATISFACTION and the CURRENT DISSATISFACTION group do not differ on any of the variables examined in this study. Yet, it is useful to conceptually distinguish between the two groups, since availability of an improved product causing PR is different from the case when it is caused by dissatisfaction with the currently owned product. However, the availability of better products may increase dissatisfaction with the currently owned brand and this might be the reason for the lack of statistical difference between the two groups.

We repeated the one way analysis of variance after collapsing the EXPECTED SATISFACTION and CURRENT DISSATISFACTION groups. As could be expected, the results showed the three groups being statistically different from one other for the following variables: PREDEC, DLR.SEAR, NBRNDS and RTL.VSTS. The PRODUCT DEPLETION group had significantly lower NMAKES, DEC.TIME, ACTVTS and higher FNL.CER, compared to the remaining two groups. However, in terms of satisfaction with the new car purchased, the three groups remained indistinguishable.

SUMMARY AND CONCLUSIONS

Problem Recognition, though recognized as being a critical part of the consumer decision process, remains relatively under researched. In this paper, we present a conceptual framework of Problem Recognition. The framework is tested using a sample of 1056 new car buyers. Results indicate that two segments -- a new need segment and a product depletion segment -- are clearly distinguishable in terms of the subsequent decision process variables. Two other groups, though conceptually distinct, do not reveal any statistical uniqueness. Additional research is needed to gain a richer and more precise understanding of how this important construct might actually frame and guide consumer decision making.

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Effect of Locus of Control on Information Search Behavior

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ABSTRACT

Locus of control (Rotter 1966) is a significant personality variable in psychology. Some people feel personally responsible for the things that happen to them -- the internals. Others feel that outcomes in life are determined by forces beyond their control (e.g. luck, fate, other people, etc.) -- the externals. In this study, we examine whether locus of control influences pre-purchase external search for information. A survey of 1401 new car buyers is used for empirical testing. Internals are found to engage in a greater degree of information search than externals. Process variables, such as perceived benefits and search effort, account for the difference. Controlling for decision importance, financial risk and product interest, locus of control is found to influence search behavior significantly.

INTRODUCTION

The influence of personality has been studied on a wide spectrum of consumer behavior: response to advertising and design features (Holbrook 1986, Wright 1975); interaction style (Richins 1983), perceived risk (Schaninger 1976), information acquisition (Schaninger and Sciglimpaglia 1981), and social consciousness (Brooker 1976, Webster 1975).

Since Rotter's (1966) influential work, locus of control has been an important area of study in personality research (Lefcourt 1982; Strickland 1989). In the consumer behavior literature, Howard and Sheth (1969) suggested that personality variables (including locus of control) influence the consumer decision making process, in which pre-purchase external search for information is an important component. Beside influencing many other behaviors, locus of control has been known to influence cognitive activity (Blass 1977; Lefcourt 1982). However, research investigating the relationship between locus of control and information search is presently non-existent in the marketing literature, as far as we are aware.

In this paper, locus of control as a determinant of consumer information search is proposed. Several process variables, such as beliefs about the marketplace, benefit expectations and search effort are examined to further understand the relationship.

BACKGROUND AND LITERATURE REVIEW

In most situations, individuals exert at least some potential control over the amount and nature of information they seek or receive about an object or event before a purchase. One factor that may influence information seeking is the internal vs. external control dimension. This variable was developed within the context of social learning theory (Rotter 1954; 1975) and denotes the degree to which

individuals believe that the occurrence of reinforcement is contingent upon their own behavior.

In general terms, locus of control refers to a person's beliefs about control over events. Some people feel personally responsible for the things that happen to them. These people may be labeled as internals. Others feel that outcomes in life are determined by forces beyond their control (e.g., fate, luck, and other people). These people may be labeled as externals (Blass 1977; Rotter 1966). Obviously, most people fall between the two extremes, forming a continuous distribution of locus of control beliefs.

In social learning theory, it has been hypothesized that when an organism perceives two situations as similar, then expectancies for a particular kind of reinforcement, or a class of reinforcements, will generalize from one situation to another. Expectancies in each situation are determined not only by specific experiences in that situation, but also to some varying extent, by experiences in other situations which the individual perceives as similar. Over a series of past behaviors in related situations (like information seeking before purchasing a durable), a person develops generalized expectancies (GE) about the occurrence of the reinforcement that will follow a particular kind of behavior.

Now, in the context of buying consumer durables, it is expected that information search precedes the purchase, since the amount of money expenditure is high and buyers would be rather involved in the purchase process (Srinivasan 1990). Also, search behaviors are known to be influenced by the consumer's learning experience of similar behaviors (Srinivasan and Ratchford 1991). Based on learning from past experience, consumers may develop GE of the reinforcement they would obtain by undertaking information search. In buying situations that are characterized by a certain degree of ambiguity, individuals will develop expectancies about the dependence of the outcome upon one's ability. Having a higher GE that reinforcements are contingent upon their own behavior, internals would make attempts to more effectively control their environment by seeking relevant information. On the other hand, externals would have less need to acquire information since outcomes tend to be perceived as less dependent on their own actions.

An individual's belief about locus of control has been studied as an antecedent to important social behaviors and psychological states, including information seeking in a variety of contexts. Trice and Price-Greathouse (1987) showed that locus of control predicted whether college women would seek information on AIDS. In an organizational setting which encouraged personal initiative in career development, internals were found to initiate more job moves and were more satisfied with career experiences than externals (Hammer and Vardi 1981).

Thorton (1978) also found more career planning activities and career information-seeking behavior by internals, compared to externals. Plumly and Oliver (1987) discuss the significant influence of locus of control on the job search process. Individuals with an internal locus of control are found to engage in more systematic exploration and have more information than externals (Noe and Steffy 1987). This suggests that an external orientation may reduce motivation to demonstrate certain types of exploratory behavior.

Davis and Phares (1967) observed that internals made more attempts than externals to actively seek information relevant to influencing the attitude of others. Internals were also more effective in using information in a delayed task (a week) than externals (Phares 1968). Seeman (1963) found that internals are superior in information recall only when the information is relevant to personal goals. Avner, Moore and Smith (1980) found that locus of control of information processing differentially affected performance in decision making, but not in routine tasks. It is also known that externals tend to exhibit less persistence at tasks (Ducette and Wolk 1972).

Based on the above literature, we propose the following hypotheses in a new car buying context:

- Hypothesis 1: Internals will engage in greater information search than externals.
- Hypothesis 2: Internals would perceive greater payoffs to search and less effort than externals (as a result of higher positive GE).
- Hypothesis 3: Internals will seek less social approval than externals.
- Hypothesis 4: Internals will rate themselves as more knowledgeable than externals.

DATA

A mail survey was conducted in a metropolitan area in the Northeast. Registration of new car owners with the Department of Motor Vehicles (as listed by R. L. Polk Company), formed the sampling frame. A sample of 3043 (every other name on the list compiled for the month of May 1986) was sent three mailings commencing in September 1986, at two-week intervals. A total of 1401 usable responses were received -- a response rate of 46%. The questionnaire was directed at the person mainly responsible for buying the new car.

While the study shares a common problem with other surveys of search behavior -- the need to rely on recall of past events, the average time interval between purchase and participation in the study, four and a half months, was shorter than in virtually all studies of search behavior known to the authors (a comparable time interval for Punj and Staelin (1983) was about 6 months). To test whether "forgetting" was significant, the responses were split into three

groups based on the return postmark. Since there were no significant differences (using t-tests and $p < 0.10$) between those who responded initially and those who responded later, we can discern no significant pattern of forgetting over the time span of data collection.

MEASURES

The primary measure used in this paper is locus of control (LOCUS). We used the short form of the James' Internal-External Locus of Control Scale (1957), consisting of eleven items (shown in the Appendix). The scale was borrowed from Robinson and Shaver's (1973) *Measures of Social Psychological Attitudes*. The James' scale was chosen for its simplicity and suitability for the study design employed. It has been reported to have split half-reliabilities ranging from 0.84 to 0.96, test-retest reliabilities of 0.71 to 0.86 and nonsignificant correlations with the Marlowe-Crowne Desirability Scale. The scale is unidimensional, i.e. all items were expected to load on a single factor and show no gender differences. A median split is taken: the bottom half is the INTERNALS and the top half belong to the EXTERNALS category. These categories should be understood to be relative to one another. We must keep in mind that the James' locus of control is a general personality measure and is not context-specific. Also, it is clearly seen that there is no obvious criterion contamination between locus of control and the various dependent measures used in this study.

We examined several other measures found in information search studies (particularly on automobiles) including time spent in search, number of search activities, number of dealers visited, number of models examined and number of cars test-driven (Brucks 1985; Olshavsky and Summers 1974; Punj and Staelin 1983). These are outlined next.

1. Time spent in information search (HOURS): Respondents were asked to estimate the approximate number of hours they spent in gathering information before buying their car.
2. Number of search activities (ACTS): A count is made of participation in the following activities: (a) talking to friends/ relatives about new cars or dealers, (b) reading books/magazines articles, (c) reading ads in mags/listening to ads on tv/radio, (d) reading about car ratings in magazines, (e) reading auto manufacturer brochures/pamphlets, (f) driving to and from dealerships, (g) looking around showrooms, (g) talking to sales people, and (h) test driving cars.
3. Number of models examined (NMODEL): The number of models considered during the purchase process was assessed as [1], [2], [3], [4], [5-7], [8-10] and [>10] cars.
4. Number of dealers visited (NDEAL): The number of dealers visited before buying their

TABLE 1
Locus of Control and Information Search

Measure	Internals Mean (SD)	Externals Mean (SD)	t-value (d.f)	p
HOURS	15.93 (20.7)	13.27 (19.7)	2.38 (1301)	0.018
ACTS	7.75 (1.5)	7.52 (1.7)	2.22 (970)	0.027
NMODEL	2.74 (1.4)	2.57 (1.3)	2.26 (1324)	0.024
NDEAL	3.35 (1.6)	3.17 (1.6)	2.10 (1347)	0.036
NTEST	2.59 (1.5)	2.31 (1.5)	3.28 (1332)	0.001

new car was determined using the same categories as for NMODEL.

5. Number of cars test-driven (NTEST): The number of cars test driven prior to buying their new car was obtained using the same categories as for NMODEL.

6. Importance of decision (IMPORT): The importance of choosing the car was assessed on a 7 point scale (1 = Very important decision, 7 = Very unimportant decision).

7. Interest in product category (INTRST): The new car buyers responded on a 7 point Likert scale (1=Strongly Agree, 7 = Strongly Disagree) to the statement: I have a great interest in cars.

8. Financial Risk in the purchase decision (FINRISK): The respondents were asked to estimate the probability (1 = Improbable, 7 = Probable) that the car purchase would lead to a financial loss due to poor warranty, high maintenance costs, and/or high monthly payments. They also reported the importance of the financial loss if it should occur (1 = Unimportant, 7 = Important). FINRISK is computed as the multiplicative function of the probability of the loss and it's importance (Peter and Ryan 1975).

The new car buyers also responded to several statements on a 7-point Likert scale (1= Strongly Agree, 7 = Strongly Disagree), including prior beliefs about the market, complexity of the informational environment, expectations from search, felt stress, social approval and subjective knowledge about cars. These statements are detailed in Table 2.

ANALYSIS AND DISCUSSION

The sum of the 11 items constituting the locus of control scale showed a mean value of 12.7 and a standard deviation of 5.1. There was no gender

difference, as expected. The eleven items loaded on a single factor (with 38% of the variance being extracted) demonstrating unidimensionality. The reliability of the scale (Cronbach's alpha) was found to be 0.83. A median split was done to obtain the INTERNAL group (LOCUS \leq 12) and the EXTERNAL group (LOCUS $>$ 12).

Table 1 shows the means and standard deviations of internals and externals across a variety of information search measures. Compared to externals, internals are found to spend more hours in information search, engage in more search activities, consider more models, visit a greater number of dealers and test drive more cars. Thus, across all the measures of search used in this study, internals are seen to exhibit a greater degree of information search than externals. Using t-tests, the differences are found to be statistically significant ($p < 0.05$) in all cases, thereby providing empirical support for Hypothesis 1.

Table 2 shows the analyses of the two groups across several statements, constituting a variety of process variables. Externals appear to believe in the stability of the marketplace more than internals. i.e. generalizability of information from the recent past. Externals also believe that sales are a signal of quality to a greater extent than internals. Not surprisingly, externals think that advertising is more credible than internals, though they are both skeptical. Externals also find the informational environment to be more complex. The implication of such beliefs about the marketplace is that externals need to search less than internals.

In a cost-benefit framework, it has been hypothesized that buyers would search for more information with increased benefits and that costs would act as constraints (Ratchford 1980). We find that expected benefits of search are, indeed, higher for internals.

Internals may be gathering more information to find out which cars are more suitable and get exactly what they want, thereby also convincing themselves that they are making the best buy. In addition, they appear to be gathering information so that they may advise family members and friends. Not only do

TABLE 2
Differences Between Internals and Externals

No.	ITEM	Internals	Externals	t (Sig)
<i>Prior Beliefs about the marketplace</i>				
1.	Before I shopped around for a new car, I believe the same models tend to be best year after year.	4.21 (1.7)	3.91 (1.7)	3.28 (0.001)
2.	The best models are usually the ones that sell the most.	4.71 (1.6)	4.29 (1.8)	4.55 (0.000)
3.	Heavily advertised models are almost always good products.	5.41 (1.3)	5.15 (1.5)	3.45 (0.001)
<i>Complexity of Information Environment</i>				
4.	Information sources about cars are so numerous that it is impossible to know everything at one time.	3.66 (1.8)	3.23 (1.6)	-4.66 (0.000)
<i>Expected Benefits of Search</i>				
5.	I learned which cars are suitable for me by shopping around.	3.14 (1.8)	3.43 (1.8)	2.84 (0.005)
6.	I got exactly what I wanted by searching enough before I bought my new car.	2.82 (1.8)	3.11 (1.9)	2.81 (0.005)
7.	By searching for more information, I am certain of making the best buy.	2.29 (1.3)	2.60 (1.4)	4.34 (0.000)
8.	Family members and friends seek my advice before buying a new car.	4.42 (1.9)	4.71 (1.9)	2.81 (0.005)
<i>Effortfulness</i>				
9.	Extensive shopping around makes it harder rather than easier for me to make a choice of what car I want to buy.	4.93 (1.8)	4.28 (1.9)	-6.27 (0.000)
10.	The process of purchasing a car is a stressful experience.	4.22 (2.0)	3.64 (2.0)	-5.38 (0.000)
11.	Searching for information before buying a new car takes too much time.	5.13 (1.6)	4.49 (1.8)	-6.74 (0.000)
12.	Searching for information before buying a new car takes too much effort	5.17 (1.6)	4.59 (1.7)	-6.21 (0.000)
<i>Social Approval</i>				
13.	Approval of my family and friends of my new car means a lot to me.	4.47 (2.0)	3.97 (2.1)	-4.53 (0.000)
<i>Subjective Knowledge</i>				
14.	Please rate <i>your</i> knowledge of cars compared to the average buyer (1= least knowledgeable, 7 = most knowledgeable)	4.61 (1.3)	4.26 (1.3)	4.85 (0.000)
15.	Describe <i>your</i> familiarity with cars (1 = not at all familiar, 7 = extremely familiar)	4.73 (1.3)	4.39 (1.4)	4.61 (0.000)

1 = Strongly Agree; 7 = Strongly Disagree. Standard deviations are shown in parentheses below the means in the first two columns. Differences of all means are statistically significant (p<0.05).

TABLE 3
Regression Results Using Search Measures

Search	LOCUS	IMPORT	INTRST	FINRISK	R ²
ACTS	- 0.10*	- 0.06	- 0.17*	0.01	.04
NMODEL	- 0.08*	- 0.03	- 0.02	0.13*	.02
NDEAL	- 0.05	- 0.13*	- 0.03	0.08*	.03
NTEST	- 0.09*	- 0.07*	- 0.08*	0.08*	.03

* indicates significant beta values (p<0.05).

externals have less of the above incentives, but they feel that information search takes too much time and takes too much effort. In fact, the car purchasing experience was felt to be stressful and extensive shopping was believed to make the purchase choice harder rather than easier. Overall, we find that the cost-benefit framework is substantiated, thereby providing support for Hypothesis 2.

Externals also seek approval of family and friends (item 13 in Table 2) to a greater degree than internals, supporting Hypothesis 3. If someone is less dependent on others' approval, it might be expected that they (i.e. internals) need to spend less time worrying about such things. They may also be more knowledgeable, or at least think that they are more knowledgeable.

Using Brucks' (1985) subjective knowledge scale (items 14 and 15 in Table 2), we found that internals do indeed rate themselves as being more knowledgeable and familiar with the product class than externals, thereby supporting Hypothesis 4.

Besides determining that internals search more than externals, we are able to find the underlying reasons: internals have restrictive beliefs about the marketplace, see greater benefits resulting from search, do not see it as requiring too much effort and consider themselves more knowledgeable.

In addition to distinguishing internals from externals and understanding some of the reasons possibly causing the difference, we were also interested in determining whether locus of control is a theoretically significant variable for explaining information search. In a study of consumer search, Potter and Coshall (1987) observed that perceived risk, interest in shopping, social status of the purchase, and the perceived time pressure influence the number of stores shopped at. Thus, if we controlled for interest in the product category, risk perception and importance of purchase, would locus of control have any influence on information search? We ran multiple regressions, using each count measure shown in Table 1 as the dependent variable. The independent variables were (1) locus of control, (2) importance of product choice, (3) interest in the product class, and (4) perceived financial risk. The beta values are shown in Table 3.

Overall, the four regressions were significant ($p < 0.05$). However, only for NTEST did each of the four independent variables reach statistical significance. For ACTS, NMODEL and NDEAL, only two independent variables were significant. LOCUS achieved statistical significance in three out of the four cases. Relative to the other independent variables, it can be seen that the influence of LOCUS is pretty stable and the beta values are comparable.

Though consumer researchers have frequently studied personality as a predictor of consumer brand and product choice, most studies that have used personality as a predictor of brand and product choice have failed to explain a meaningful degree of variance (Kassarjian 1971; Sheth, Newman and Gross 1991). This study is no exception. Locus of control is a general personality measure. By their very nature, general personality measures cannot be expected to have high predictive power in specific contexts. Such measures represent only one of many variables which enter the prediction of behavior. However it is worthwhile to first establish a relationship between a generalized construct and the behavior under study before attempting context specific modifications. By providing a theoretical grounding for our study and using a standardized personality test for an appropriate purpose, we seek to improve our understanding of search behavior.

The findings of this study may be generalized to hold for search behaviors for durables, where involvement is high, but may not hold for most nondurables. Whether involvement plays a moderating effect is left for future investigation. Besides, it would be useful to compare how the locus of control construct compares with involvement, product knowledge and other predictors of search behavior and the possible interactions. This is also left for future research. Another recommended area of investigation is the development of a specific personality measure -- locus of control for information seeking -- that would improve predictive power.

SUMMARY AND CONCLUSIONS

In this study, we investigated the influence of locus of control on external search for information. Internals are found to engage in a greater degree of

information search compared to externals, using a variety of measures -- hours spent, number of search activities, number of models considered, number of dealers visited and number of cars test driven. Internals perceive greater benefits to search and find the purchase process less stressful. Internals see the informational environment as less complex and their prior beliefs about the marketplace are also less constraining. Finally, locus of control is found to have a statistically significant influence on search. Further research for developing specific locus of control measures for information search would help to improve predictive power.

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APPENDIX

11 ITEM JAMES' LOCUS OF CONTROL SCALE

A number of statements were collected from different groups of people representing a variety of opinions. For each statement, there are large numbers of people who agree and disagree. There are no right or wrong answers. Please indicate whether *you* agree or disagree with each statement. Indicate your response by circling the number which most closely corresponds to the way *you* personally feel.

Strongly Agree	Agree	Disagree	Strongly Disagree
4	3	2	1

1. Many times I feel that we might as well make our decisions by flipping a coin.
2. Getting a good job seems to be largely a matter of being lucky enough to be in the right place at the right time.
3. It is difficult for ordinary people to have much control over what politicians do in office.
4. It isn't wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyway
5. When things are going well for me I consider it due to a run of good luck.
6. I have usually found that what is going to happen will happen, regardless of my actions.
7. Success is mostly a matter of getting good breaks.
8. There's not much use in worrying about things; what will be, will be.
9. Success in dealing with people seems to be more a matter of the other person's moods and feelings at the time rather than one's own actions.
10. I think that life is mostly a gamble.
11. Many times I feel that I have little influence over the things that happen to me.

Mapping the Relationship Between Preattentive Processing and Attitudes

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ABSTRACT

While prior research suggests that preattentively processed information can influence attitudes (Janiszewski 1988), it has not (1) provided independent evidence for the existence of preattentive processing or (2) demonstrated why preattentively processed material may influence attitudes. This study attempts to address both issues. First, implicit memory is used as a process measure to document the existence of preattentive processing and its relationship to ad affect. Second, three possible mechanisms underlying the effect of preattentive processing on affect (mere exposure, classical conditioning and mood) are investigated. The results suggest that mere exposure accounts for the preattentive processing effect. Further, results indicate that given equal levels of priming, affect change occurred only in the three exposure (not the one exposure) condition suggesting that the mere presence of an implicit memory trace is not sufficient to influence affective responses.

INTRODUCTION

Though it has been proposed that attitude formation is a cognitive process involving focused, conscious attention (Fishbein and Ajzen 1975; Hastak and Olson 1989, Lutz 1975; 1977, Olson et al 1982), recent literature in psychology and marketing proposes that attitudes can also be formed preattentively (Dixon 1981; Janiszewski 1988; Kihlstrom 1984; 1987; Moreland and Zajonc 1977; Wilson 1979). In an advertising context, for example, Janiszewski (1988) showed that ad attitudes can be influenced when information in the ad is processed at a preattentive level, and that some relationship exists between the nature of the material to be processed (visual vs. verbal) and the dominant hemisphere in which the information is processed (right vs. left).

While interesting, much needs to be learned about preattentive processing effects on attitudes. Specifically, greater effort is needed to clarify that preattentive (vs. conscious) processing has actually taken place. Furthermore, greater effort is needed to uncover the specific processes which may explain attitude formation under the preattentive processing route. The purpose of this paper is two-fold: (1) to explore a methodology for assessing the existence of preattentive processing, specifically through the use of implicit memory, and (2) to test three possible mechanisms-- mere exposure, classical conditioning, and mood-- as processes potentially underlying the preattentive processing effect.

The paper is divided into four sections. The first describes preattentive processing, defines key constructs, and identifies factors thought to affect preattentive processing. The second section identifies potential mechanisms underlying preattentive processing effects on ad attitudes, and their possible dependence on implicit memory. An experiment designed to test each mechanism and its link to implicit memory is described in the third section. The final section describes limitations and implications of the study, as well as directions for future research.

PREATTENTIVE PROCESSING

Discussion of preattentive processing first requires differentiating conscious from nonconscious experiences. Consciousness includes both monitoring and controlling ourselves and the environment so that memories and thoughts that influence behavior and cognition are both represented in phenomenal awareness and can be voluntarily initiated and terminated (Kihlstrom 1984). Nonconsciousness involves memories and thoughts which are not represented in phenomenal awareness and which cannot be voluntarily initiated or terminated (Kihlstrom 1984). Preattentive processing refers to information not in focal attention but which receives cognitive processing (Kihlstrom 1984), and hence can be analyzed for its emotional significance and semantic meaning (Dixon 1981).

Preattentive processing has been studied using a variety of methodologies (e.g., dichotic listening and masking paradigms). In consumer research the methodology used by Janiszewski (1988) involved two factors, hemispheric processing style and contralateral conduction.

The two hemispheres of the brain have been shown to use two different processing styles (Bouma 1978; Sergent 1983). The right hemisphere is said to have a holistic style, allowing the simultaneous integration of multiple pieces of information. This hemisphere uses a template matching process, invoking a template to give meaning to incoming information (Janiszewski 1988). Because of this holistic processing style, the right hemisphere is more compatible than the left with processing pictorial stimuli. The left hemisphere is described as unit-integrative, as it combines well-learned individual units into a meaningful whole (Janiszewski 1988). Because of this unit-integrative style, the left hemisphere is more compatible than the right with the processing of verbal stimuli.

Contralateral conduction refers to the fact that stimuli observed in the right visual field are processed in the left hemisphere of the brain, while stimuli observed in the left visual field are processed in the right hemisphere. Combined with the differences in hemispheric processing styles noted above, this phenomenon implies that visual stimuli presented in the left visual field should receive greater processing

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than verbal stimuli presented in the left visual field. Conversely, verbal stimuli presented in the right visual field should receive greater processing than visual stimuli presented in the same field.

Janiszewski (1988) extends notions of preattentive processing, hemispheric processing style and contralateral conduction to make predictions about the effect of preattentively processed stimuli on affective responses. Subjects' attention was focused on a task (e.g., an article) with a critical visual ad placed in subjects' peripheral vision to the right or left of the attended task (right or left visual field). This peripherally placed ad was the stimulus assumed to be preattentively processed. Following exposure to the article, subjects' attitudes toward the preattentively processed stimulus were assessed. The results indicated when the attended task was verbal, the pictorial critical ad was most preferred when it was placed in the left vs. the right visual field, even when subjects were unaware of having seen the ad.

While interesting, additional research in this area is needed to clarify that (1) preattentive processing did indeed take place and (2) what processes account for the observed effects. We propose a methodology (implicit memory) for assessing the existence of preattentive processing, and propose three potential processes as underlying the existence of the preattentive processing-affect relationship.

THEORY AND HYPOTHESES

Implicit Memory - A Process Check for Preattentive Processing

One problem with past research on preattentive processing in an advertising context is that the existence of preattentive processing is determined by its effects. However, using affect change as both an indicator of preattentive processing and as an outcome of such processing is problematic. Hence independent evidence for the existence of such processing is necessary to demonstrate the preattentive processing-affect relationship. By decoupling the measure of preattentive processing from that of its effects, it becomes possible to directly demonstrate that preattentively processed stimuli do influence affect formation processes. One indicator of preattentive processing is assessing whether stimuli supposedly processed at a preattentive level leave an implicit memory trace. As the implicit memory literature is just now burgeoning in psychology, and is unlikely to be familiar to most readers, a brief overview is in order.

Implicit Memory

Implicit memory refers to the expression of previously encoded information without conscious or deliberate recollection of prior exposure to such information (Schacter 1987). If information has been processed preattentively (e.g., the word *Stripe*), for example, this information is likely to be primed in memory, and hence more accessible, even though the individual may not tie the primed information with the preattentive processing task. Often implicit memory

is measured through indirect memory tasks which, unlike direct memory tasks, do not ask subjects to refer back to recently presented information when completing the memory task. In a stem completion task, for example, the subject may be presented with the stem *STR___* and asked to complete the word. If the word *STRIPE* has been primed in memory (through preattentive or other processes), one would expect a greater number of primed subjects to complete the above stem with the word *STRIPE* than with some other word.

Placement Effects, Implicit Memory, and Affect

Because not all stimuli are preattentively processed, evidence for preattentive processing effects should be demonstrated only in the conditions that favor preattentive processing. It is thus proposed that subjects in exposure conditions thought to be conducive to preattentive processing will demonstrate significantly greater priming for the exposure content than subjects in exposure conditions less conducive to preattentive processing. As indicated earlier, contralateral organization effects propose that the nature of the stimulus (visual or verbal) and its placement (left or right visual field/right or left hemisphere) produce effects that are more or less compatible with preattentive processing. Thus, we would expect greater preattentive processing (and greater implicit memory) when pictorial information is placed in the left vs. right visual field, and when verbal information is placed in the right vs. left visual field. As this study uses only visual stimuli to scale down the study size, we expect that:

H1: Subjects exposed to pictorial information in the left visual field will demonstrate significantly greater implicit memory traces for the visual information than subjects exposed to visual information in the right visual field.

If preattentive processing does promote affect, one would expect to replicate Janiszewski's (1988) finding of the relationship between placement effects and ad affect. Hence:

H2: Subjects exposed to pictorial information in the left visual field will demonstrate significantly more positive affect for the visual information than subjects exposed to visual information in the right visual field.

While the above hypotheses are geared toward establishing a direct linkage between exposure conditions, preattentive processing and affect, they do not indicate the process by which preattentively processed material results in more positive affect. Three potential processes by which this effect may occur (mere exposure, classical conditioning, and mood) are explored below.

Mere Exposure

Mere exposure theory asserts that a positive relationship can be found between the level of stimulus exposure and preference for the stimulus (Moreland and Zajonc 1977; Wilson 1979). Formally, the theory states that the higher one's objective familiarity with a stimulus, the greater one's preference for it. Note that mere exposure theory is concerned with objective, not subjective familiarity.

Uncertainty reduction, a proposed explanation for the mere exposure effect, asserts that cognitive elaboration during encoding reduces uncertainty, resulting in greater familiarity with, and hence greater positive affect toward the stimulus (Obermiller 1985). Suggesting cognitive elaboration during encoding does not eliminate the possibility that this process is done preattentively, for higher levels of mental processes involved in judgment and problem solving can all occur outside of phenomenal awareness (Kihlstrom 1987). If ad attitudes of preattended stimuli are affected in a manner suggested by the mere exposure theory, research which systematically manipulates exposure levels should find increasingly positive ad attitudes for preattentively processed ads as exposure increases.

If mere exposure does operate as a theoretical explanation for attitude effects observed from preattentively processed stimuli, pictorial ads placed in the left visual field should be most affected by an increase in exposure levels relative to pictorial ads placed in the right visual field. Specifically, uncertainty reduction (and hence mere familiarity) should occur only for those ads that are preattentively processed. Hence mere exposure theory posits that:

H3: When the stimulus is pictorial, ad attitudes will increase with increasing exposure rates, but only when the ad is placed in the left (vs. the right) visual field.

Classical Conditioning

Classical conditioning involves exposing subjects to a positively or negatively valenced unconditioned stimulus such as music (Gorn 1982) or visual images (Stuart et al 1987) along with or just preceding a neutrally valenced stimulus such as the ad or brand. Classical conditioning asserts that the pairing of a positively (negatively) valenced unconditioned stimulus with a neutrally valenced target ad (conditioned stimulus) will lead to positive (negative) affective response toward the target ad.

If ad attitudes of preattended stimuli are affected in a manner suggested by classical conditioning, research which systematically manipulates the valence of the attended task should find an interaction between stimulus valence (positive vs. negative) and placement (left vs. right visual field). Specifically, if the relationship between preattentive processing and affect is driven by classical conditioning, one would expect that:

H4: When the stimulus is pictorial, ad attitudes are most favorable when the

attended task is positively valenced and the ad is placed in the left visual field, and least favorable when the attended task is negatively valenced and the ad is placed in the right visual field.

Though conditioning can occur with the first paired CS-US exposure (Stuart et al 1987), it is hypothesized that greater exposures should strengthen the link between the CS and US, resulting in more extreme affect with greater levels of exposure. Valence and exposure levels should also interact with hemispheric compatibility. Specifically:

H5: When the attended task is negatively (positively) valenced, ad attitudes will be more negative (positive) with increasing exposure rates, but only when the stimulus is processed in the compatible hemisphere.

The use of the negatively valenced attended task helps differentiate classical conditioning from mere exposure. While both classical conditioning and mere exposure predict increases in ad attitudes when positive stimuli are used for the attended task, classical conditioning posits negative attitudes with repeated exposures for the negatively valenced attended task, while mere exposure posits positive attitudes with repeated exposures for the negatively valenced attended task.

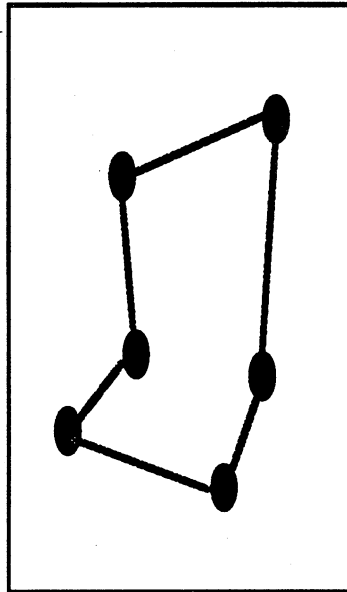
Distinguishing Classical Conditioning from Mood

It may be argued that the effects of classical conditioning could be attributed not to the involuntary response conditioned by the CS-US pairing, but rather to the mood created by the unconditioned stimulus. Mood effects literature suggests that a positively (negatively) valenced stimulus (e.g., a happy/sad article) may put the reader in a positive (negative) mood, which would in turn, increase the accessibility of related thoughts in memory (Goldberg and Gorn 1987). When asked to rate their preference for an otherwise neutral stimulus (ad), the activated mood would prime likened material in memory, and the person would likely rate the stimulus (ad) in a mood congruent direction.

Having subjects rate ads that were both present and not present in the experimental context should enable an assessment of which theory is at work. Mood effects theory would predict that all ads evaluated after a positive (negative) mood induction would be rated higher (lower) regardless of whether they had been previously seen. In contrast, classical conditioning would predict effects only for those ads previously paired with the positively (negatively) valenced stimulus. Thus classical conditioning theory also predicts that:

H6: Consumers exposed to the positively (negatively) valenced unconditioned stimulus will have more (less) favorable

FIGURE 1
The Critical Object



(NOT ACTUAL SIZE)

ad attitudes only for those ads previously present in the exposure set.

METHOD

Stimuli

Two types of stimuli were developed for use in the study: preattentively processed stimuli and attended stimuli. For use in this study, preattentively processed stimuli had to be pictorial in nature, adaptive to an indirect memory test, and neutral in valence. The attended stimuli needed to differ in valence (positive vs. negative). Pretests designed to develop these stimuli are described below.

Preattended stimuli. Six dot patterns were created and assigned to 40 subjects (N=40 per dot pattern), who were instructed to draw lines to connect the dots in each pattern in any way they desired. This pretest was required to obtain baseline figures for the indirect memory test. The baseline figure represents the percentage of subjects who connected the dots to form the critical object used as the preattended stimuli.

Twenty four objects were formed by connecting the dots in each of the 6 dot patterns in four different ways. Thirty subjects were randomly assigned eight of the 24 objects (N=10 per object) and asked to evaluate each on four, nine-point bipolar items: unattractive/attractive, unappealing/appealing, unlikable/likable, unpleasant/pleasant ($\alpha=.95$). T-test comparisons indicated that 8 of the 24 objects were rated as having affective responses no different from the neutral rating of 5 ($p>.05$). Of those 8, two had acceptable baseline levels of dot completions to form the object [18.42% (7/38) and 15.00% (6/40)].

The object with the higher baseline level was randomly chosen as the critical preattentive stimulus. This stimulus is shown in Figure 1.

Attended stimuli. Seven newspaper articles, each 330 words in length, were taken from the Sunday edition of the Chicago Tribune. Seventy undergraduate subjects participating in a study ostensibly on processing style, were randomly assigned to one of the seven articles (N=10 per article). Subjects were told to read the article as quickly as possible while at the same time reading for detail. Following completion of the article, each subject evaluated the article on a set of nine-point bipolar items: unpleasant/pleasant, unlikable/likable, unenjoyable/enjoyable ($\alpha=.94$). Based on these pretest results, several modifications in the articles, and further pretesting, articles evoking strong positive and strong negative affective responses were identified. Subjects also indicated on a ten point scale the extent to which the article was very difficult to understand/very easy to understand and very difficult to follow/very easy to follow ($\alpha=.94$). None of the articles differed in difficulty level, and each was found to be relatively easy to read ($X=8.71$).

Subjects

Subjects were sixty three undergraduate students who participated in the experiment for course credit (N=44) or as part of a chance to win a \$50.00 cash prize lottery (N=19). Two subjects were suspicious of the true purpose of the experiment and were discarded. Due to time constraints, the remaining subjects were randomly assigned to only the 6-cells critical to the predictions made in this study, allowing at least 10

TABLE 1
Indirect Memory Test Results

		% Completing Dot Pattern to Form Critical Object			
		Positive		Negative	
		1 Exp	3 Exp	1 Exp	3 Exp
Left Visual Field		12.5% (n=8)	—	25.0% (n=8)	16.7% (n=6)
Right Visual Field		50.0%(*) (n=8)	—	16.7% (n=6)	62.5%** (n=8)

Percentage connecting the dots to form the critical object based only on those who were test unaware.

(*) p<.06

(**) p<.01

Baseline = 18.42%

subjects per each of the 6 conditions. Subjects were run in groups ranging in size from 3 to 18. Experimental sessions lasted approximately 40 minutes. When possible, all 6 conditions were represented during each experimental session.

Design and Procedure

A 2 x 2 x 2 between subjects experimental design was used, with valence of the attended task (positive vs. negative), exposure level (1 vs 3), and placement of the critical object (right vs. left visual field) as the independent variables. Data for two of the experimental conditions (see Table 1) are still in the process of being collected.

Subjects were informed that the purpose of the study was to examine how individuals' processing style affected their memory for the details of previously read newspaper articles. Subjects were told they would be exposed to a total of four short newspaper articles. Subjects were informed that they would be given an unspecified time limit to read the four articles, and that undivided attention to the articles would allow them to finish all articles before the time limit expired. Subjects were instructed to start with the article on the first page of the newspaper, and proceed to the next article until all four articles marked with an orange dot were read. An ostensible time limit was imposed to focus attention on the article and away from the critical object. In reality, subjects were not under any time constraint, and all were allowed to finish reading all four articles.

The stimulus material subjects received contained four double-sided mock newspaper pages. The first page of the newspaper was a no-treatment page. The following three pages contained the

positively or negatively valenced articles. In the one exposure condition, the critical object was placed alongside (right or left) of only one of the articles. Assignment of the critical object to the specific article was random. In the three exposure condition, the critical object was placed alongside (right or left) of each of the three articles following the first no treatment page. For a more detailed description of the newspaper layout see Janiszewski (1988).

After reading the last article, subjects completed a questionnaire which ostensibly measured processing style. They then completed the implicit memory task. As with the pretest, subjects were given the 6 dot patterns-- one per page-- and were asked to connect the dots in any way they felt fit. One of the dot patterns represented the critical stimulus. The order of dot patterns was randomized across subjects. To ensure that performance on the dot completion task was attributable to implicit vs. explicit memory, subjects were asked several questions that assessed their hypotheses about the purpose of the dot completion task, and their awareness of the relationship between the newspaper and the dot completion task (Bowers and Schacter 1990). Subjects who made no mention of the newspaper or objects within the newspaper were classified as test unaware. Only their responses were retained to test the implicit memory hypotheses.

The third part of the questionnaire measured subjects' affect toward the critical object, two other objects present in the newspaper, and three objects not present in the newspaper but rated as neutral in the pretests. After rating all six objects, subjects were instructed to re-examine each object and indicate whether they recalled having seen it in the newspaper.

Order of objects was randomized across subjects. The final part of the questionnaire assessed affect toward and perceived difficulty of the three newspaper articles.

Dependent Measures

Implicit memory was assessed by comparing the percentage of subjects who were test unaware and who formed the critical object in the dot completion task with the baseline percentage who formed the critical object in the pretest. A similar dot completion measure was successfully used to show priming of novel nonverbal patterns in a study by Musen and Treisman (1990).

Evaluation of the critical object, the noncritical objects in the newspaper, and the noncritical objects not in the newspaper was assessed by an averaged composite measure ($\alpha=.95$) of subjects' ratings of the object as unappealing/appealing, unattractive/attractive, unlikable/likable, unpleasant/pleasant. Each item was assessed on a nine-point scale.

The valence of the attended task was assessed by three nine-point bipolar items: unpleasant/pleasant, unlikable/likable, unenjoyable/enjoyable. Items were averaged to form a composite index ($\alpha=.95$). Perceived difficulty of the articles was assessed by taking the average of two ten-point bipolar items: very difficult to understand/very easy to understand, and very difficult to follow/very easy to follow ($\alpha=.86$).

RESULTS

Manipulation Checks Results

To check on the success of the valence of the attended task manipulation, the average ratings for the positively valenced attended task ($X=7.98$) and the negatively valenced attended task ($X=2.82$) were compared to the neutral score of 5. One-tailed *t*-tests indicated the valence of each task was significantly different from the neutral score (both $p<.001$). These results confirm the success of the experimental manipulation. Additionally, perceived difficulty of the articles was not found to be any different between the positively and negatively valenced conditions ($p>.1$).

Data on handedness and gender were also collected and used as covariates for all ANOVA analyses reported in the results section. As neither variable was found to be significant in any of the results, only the simple ANOVAs are reported here.

Recognition Test Results

Differences in recognition of the critical object across the two placement or the two exposure conditions would be problematic as such differences might suggest that conscious processing had taken place in one condition but not the other. To examine whether such differences existed, two nonparametric tests for comparison of two proportions were conducted using the recognition measure as the dependent variable. The recognition levels were not different when the stimulus was placed in the left

(20%) vs. the right (19.35%) visual field. Nor were recognition levels different in the one (15%) vs. three exposure (28.6%) conditions (both $p's >.10$). Thus any observed differences in the results should not be attributable to differences in recognition levels (conscious processing) across the various treatments. Additionally, a test for a positive influence of recognition on attitude toward the object was not significant ($p >.1$).

Test of the Hypotheses

H1 predicted that subjects exposed to the critical object in the left visual field would demonstrate significantly greater implicit memory for the critical object than subjects exposed to the same object in the right visual field. To test this hypothesis, a nonparametric test for comparison of two proportions was conducted for each of the six experimental cells. The results showed greater implicit memory for the positive/one exposure/right visual field and negative/three exposure/right visual field conditions (see Table 1). These two conditions did not differ from one another in their level of implicit memory. The results indicate that contrary to H1, implicit memory for visual stimuli is greater when they are placed in the right, not the left visual field. These results do not support H1.

H2 predicted more positive affect for the critical object when it was placed in the left vs. the right visual field. Mean affect ratings for the critical object are shown in Table 2. An ANOVA on affect toward the critical object revealed neither a main effect for placement ($F=1.53, p>.10$), nor a main effect for valence ($F<1, p>.10$). However, a placement by exposure interaction was observed ($F=4.06, p<.05$) with highest preferences in the negative/three exposure/right visual field condition. The observed interaction runs counter to H2 which predicted the object would be most preferred when placed in the left visual field. Thus, though a placement effect did exist it (1) was opposite the placement condition predicted and (2) was contingent on numbers of exposures.

H3 predicted that if the observed results are attributable to mere exposure, attitude toward the critical object should increase with increasing exposure, but only when the critical stimulus is placed in the left visual field. While the placement effect is reversed, as noted above, the proposed interaction did emerge. Preferences did increase with exposure, and the impact of exposure on preferences seemed to depend on where the object was placed. To gain greater evidence for the existence of the mere exposure mechanism, further analysis was conducted by cell. Specifically, a one-tailed test indicated that the evaluation of the critical object in the negative/three exposure/right visual field condition was significantly greater than the neutral rating of 5. Thus, under certain conditions, preattentive processing of pictorial stimuli can lead to increased affective responses in a way generally consistent with mere exposure theory.

H4 and H5 predicted that if the observed results are attributable to classical conditioning, evaluations of the critical object should be most positive (negative) when the attended task is positively

TABLE 2
Mean Affect Ratings of Critical Object and ANOVAS

MEAN AFFECT RATING OF CRITICAL OBJECT AND ANOVAS

	Positive		Negative	
	1 Exp	3 Exp	1 Exp	3 Exp
Left Visual Field	5.30% (n=10)	—	5.40 (n=10)	5.22 (n=10)
Right Visual Field	5.08% (n=10)	—	5.41 (n=10)	6.55(**) (n=11)

(**) p<.01 (Greater than a neutral rating of 5)

ANOVAS
Attitude Toward the Object

Main Effects	ms	df	F	p
Visual Field (placement)	2.607	1	1.525	.22
Exposure	2.728	1	1.596	.21
Valence of the attended task	.291	1	.170	.68
Interactions				
Placement X Exposure	6.488	1	4.062	.05
Placement X Valance	2.832	1	1.658	.20

Due to the incomplete design, main effects were calculated with a 3 way ANOVA and interactions with two 2 way ANOVAs on attitude toward the critical object.

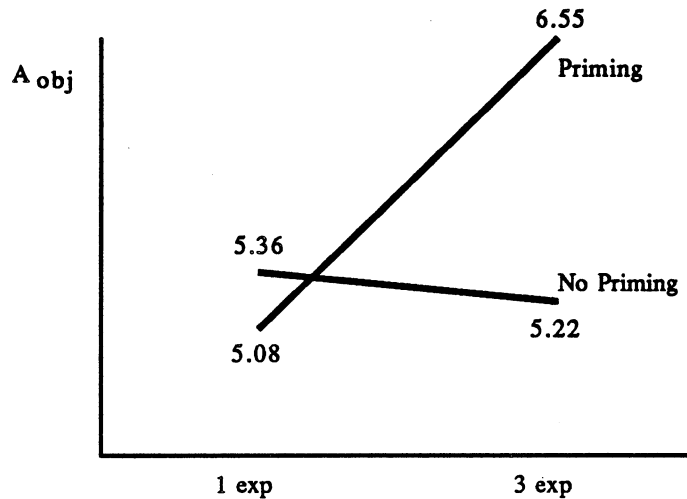
(negatively) valenced, particularly when the critical stimulus was processed in the appropriate visual field, and presented multiple times. However, the results revealed no main effects for valence of the attended task, nor interactions of attended task valence with either placement, exposure, or both. In fact, the critical object showed highest affect ratings in the three exposure/negatively valenced attended task condition. These findings cast doubt on classical conditioning as the mechanism responsible for preattentive processing effects.

The results also cast doubt on mood as an explanation for preattentive processing effects on affect. As noted earlier, if the valence of the attended task influenced subjects' moods, mood should transfer to evaluations of both seen and previously unseen objects. However, no effects involving valence of the attended task emerged. Furthermore, the mean score affect ratings of the three unseen objects (5.46) was not found to differ significantly from the neutral rating of 5 (p >.10). Additionally, the affect rating of the

critical object in the positively valenced conditions (X=5.19) was not found to be significantly different from the affect ratings of the unseen objects in these same conditions (X=5.35,p>.10). However, the affect ratings of the critical object in the negatively valenced conditions (X=5.67) was found to be significantly different from the ratings of the unseen objects in these same conditions (X=5.06,p<.05).

To ascertain whether an implicit memory trace represents a sufficient condition for a change in affective response, we examined the impact of priming (e.g., implicit memory vs. no implicit memory) on evaluations of the critical object across the two exposure conditions. This interaction (see Figure 2) was significant, and indicates that an implicit memory trace for a stimulus is not sufficient to influence affective response. Specifically, the implicit memory trace translates into more positive affective responses only after several exposures.

FIGURE 2
Attitude Toward the Object
Priming vs No Priming



DISCUSSION

This study observed several interesting effects regarding preattentive processing and affect. First, using implicit memory measures, the results indicated that some sort of preattentive processing did occur, and that those stimuli processed preattentively did influence affective responses in a manner predicted by mere exposure theory, but not classical conditioning or mood. However, the study did not find evidence for the hemispheric processing placement effects found in past literature. In fact, the placement effect was opposite that hypothesized. Two possible explanations could account for this reversed placement effect.

The first explanation is measurement based. Blaxton (1989) suggests that performance on an implicit memory test is facilitated by the degree to which the processing style used during study matches that used during test. The implicit memory test used in this study (dot completion) is very similar to a fragment completion task which is thought to utilize more of a data driven processing style than a conceptually driven processing style (Blaxton 1989). Therefore, performance on the dot completion task would be greater under those conditions favoring data driven versus conceptually driven processing during encoding. Because the left hemisphere is associated with a more analytic (data driven) processing mode and the right hemisphere is associated with a more holistic (conceptually driven) processing mode, the dot completion task was partial to the condition in which the stimulus was processed in the left hemisphere (i.e., when placed in the right visual field).

This explanation is weakened, however, when one considers the fact that there was an increase in evaluation of the stimulus only when it was placed in the right visual field and therefore processed in the left hemisphere. Unlike the dot completion task, an

evaluation task is conceptually based and therefore one's performance on it would be facilitated if encoding utilized a more conceptually based processing style as well. Using the same logic as before, performance on the evaluation task should have been facilitated if the stimulus was placed in the left visual field and therefore processed in the right hemisphere. As noted above, however, just the opposite was found.

The second explanation for the reversed placement effect is stimulus based. It is very common to divide stimuli into verbal and nonverbal categories when studying hemispheric asymmetries (Sergent 1983). Unfortunately, this categorization may be too simplistic, as there are many other stimulus based characteristics that could lead to a left or right hemispheric advantage. For example Pitblado (1979) examined hemispheric asymmetries, studying object identification using random dot stereograms. Under certain conditions he was able to show that the left hemisphere was more efficient when large dots were used whereas the right hemisphere was more efficient when small dots were used. Similarly, Sergent (1982e) found a left hemisphere advantage in visual search for large letters and a right hemisphere advantage for visual search for small letters. Other hemispheric reversals from the typical verbal/visual paradigm have been found under conditions of differing exposure durations, luminance, eccentricity and degradation (Sergent 1983). In the same vein, it is quite possible that while the stimulus used in this study appeared to be visual in nature, due to other characteristics it was in fact partial to the left versus right hemisphere.

The study also indicated that the mere presence of an implicit memory trace is not sufficient for a change in affective response. Specifically, even though priming was no different between the positive/one exposure/right visual field condition and

the negative/three exposure/right visual field condition, affect change occurred only for the latter condition. It may be that the strength, rather than the mere presence of the implicit memory trace determines whether there is a change in affective response. Repeated exposures (and perhaps other stimulus factors) may enrich or strengthen the implicit memory trace. Assessing the veridicality of this hypothesis, and identifying factors which may foster stronger implicit memory traces thus constitutes an important direction for future research.

The above findings and interpretations must, however, be considered in light of the study's limitations. A major limitation of the present study is the use of a simple geometric shape for use as the preattended stimulus. It is quite possible that a "real" pictorial ad (or a verbal ad) would lead to different results. It should be recalled, however, that the geometric figure was used in this study so that the implicit memory-affect relationship could be assessed. Additional study using stimuli more representative of those used in advertising should follow the present research. Furthermore, the study's conclusions should be held as tentative, pending further data collection to complete the experimental design.

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Till Death Do We Part: Family Dissolution, Transition, and Consumer Behavior

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ABSTRACT

The effect of marital dissolution on family consumption behavior is examined through a consideration of the Andreasen model, which links life status changes to changes in consumer behavior. A series of propositions are offered which enhance the Andreasen model by exploring the dimensions along which individuals evaluate life status changes, their effects upon stress, and the relationship between stress and consumption. Modifications of the Andreasen model are suggested which more fully integrate stress with life status changes and consumption behavior.

INTRODUCTION

Divorce is a fact of life. Few current trends affect our culture as profoundly or as pervasively as family dissolution. With approximately 49 percent of marriages ending in divorce (Glick 1984), the growing awareness that permanence is not an intrinsic part of the family relationship can be expected to have significant and long-term effects upon personal and family decision-making behavior. Researchers in a variety of fields have been studying the effects of divorce for decades; however, the impact of family dissolution upon consumer behavior has been virtually ignored in consumer research.

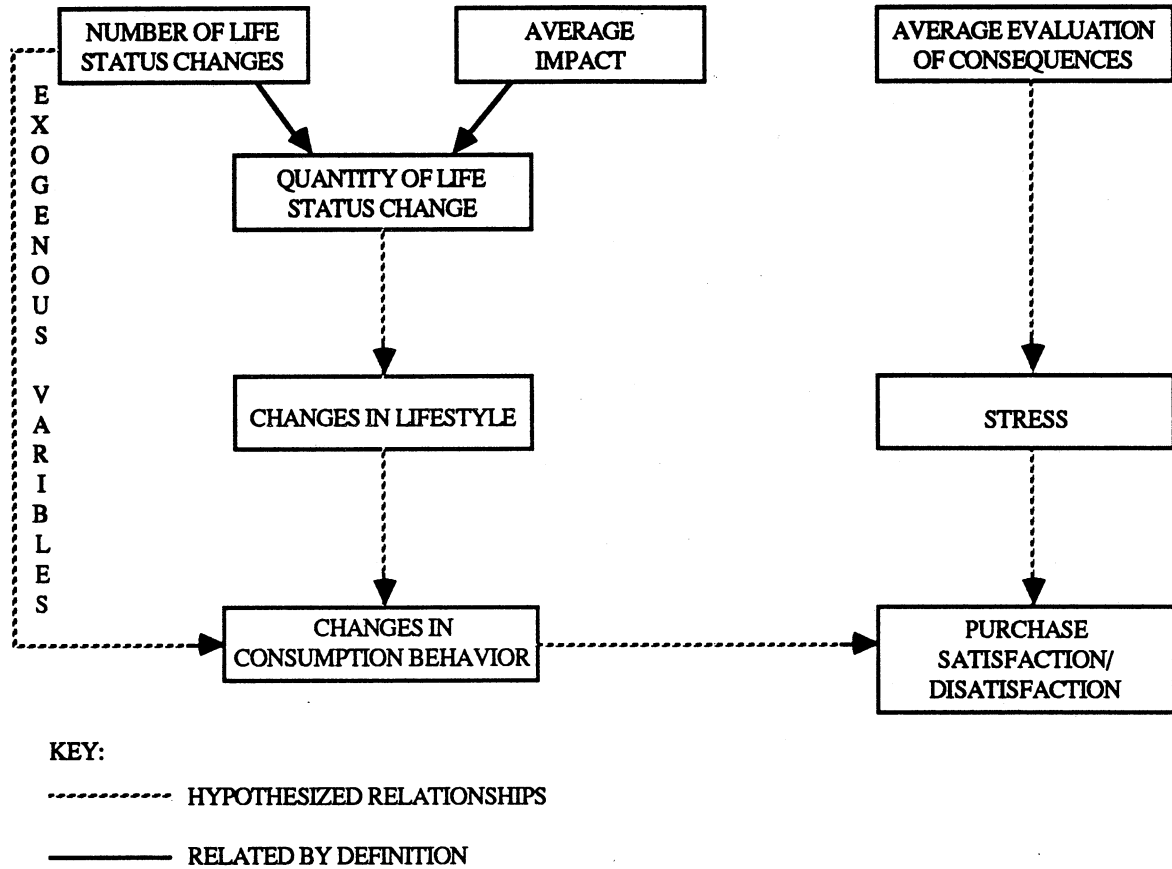
The ultimate result of divorce is family dissolution and the evolution of a new family structure. The increasing rate of family restructuring has led many consumer researchers to turn their attention away from the traditional family life cycle model to more transition-based models of family consumption (Bristor and Qualls 1982). In an attempt to conceptualize the effects of life transitions upon consumption behavior, Andreasen (1984) has proposed a model in which life status changes function as antecedents of stress and shifts in consumption. Andreasen's recognition and incorporation of stress in a transition-based consumption model provides a particularly useful tool for examining the effects of divorce on family consumption behavior. Focusing in greater depth on a specific type of status change such as divorce, which affects a significant portion of the population, allows the robustness of the Andreasen model to be tested and conceptually enhanced.

After careful consideration, our paper has been limited to the examination of the effect of divorce upon consumption behavior in families with children. There are two reasons for limiting the scope of this paper. First, approximately two-thirds of divorces involve children (McLanahan and Garfinkle 1989). Second, in the case of the childless couple, the effect of divorce is to dissolve the family unit and to create two new households; the original family as a social unit no longer exists. In this case, the consumption behavior of each individual is likely to resemble that of other single adults.

However, when children are involved, the bonds between parents and their children significantly affect the consumption behavior of both new households. At one extreme, which occurs when a spouse abandons the children, family dissolution results in that spouse experiencing consumption behavior resembling that of other single adults, and a family unit whose consumption behavior reflects the chronic stress caused by the greatly reduced financial resources and role overload experienced by the remaining parent. At the other extreme, which occurs when children split their time living with each parent under joint custody agreements, the family unit may not dissolve as much as it evolves into two separate family units sharing the same children. In this situation, the consumption behavior of each household may share characteristics of both married and single population segments. Family dissolution is not just complex, it is also multidimensional. Obligations resulting from kinship ties to children from former relationships can carry over and affect the consumption behavior of subsequent family units formed by the original partners.

In consumer research, the traditional tool for examining the consumption behavior of the family has been the family life cycle model. The model purports that the family unit passes through a series of stages, each of which has its own set of purchasing patterns. However, the model is only effective when the rate of change in the family structure is relatively low, resulting in the same family existing over a significant period of time. In spite of attempts to modernize the family life cycle model by expanding the number of family type categories, studies using family life cycle categories may fail to capture as much as 34 percent of subjects interviewed (Bristor and Qualls 1982). Many of these non-traditional family units exhibit marked differences in consumption behavior from traditional family units (Derrick and Lehfeld 1980). The family life cycle model has become a casualty of increasing divorce rates and other social and demographic trends. Any model which hopes to be relevant to the study of the contemporary family must be transition-based, such as the model proposed by Andreasen (1984). The purpose of this paper is to examine the literature on family dissolution and transition from the perspective of the Andreasen model, discuss limitations of the model, and propose several refinements which are suggested by research in family dissolution. For a graphic representation of our suggested enhancements to the Andreasen model, see Figures 1 and 2.

FIGURE 1
Andreasen Life Status Change Model



AN OVERVIEW OF THE ANDREASEN MODEL: THE LINKS BETWEEN CHANGES IN LIFE STATUS, LIFESTYLE, STRESS, AND CONSUMPTION BEHAVIOR

Referring to the "teachable moment", Andreasen (1984) has suggested that the probability that a consumer will change their perceptions, attitudes, and behaviors is directly proportional to the amount and type of life status change the consumer has recently undergone or is currently undergoing. Furthermore, each type of status change leads to specific consequences which are: 1) unique to the type of change, 2) occur in virtually all households experiencing the change, and 3) are relatively predictable.

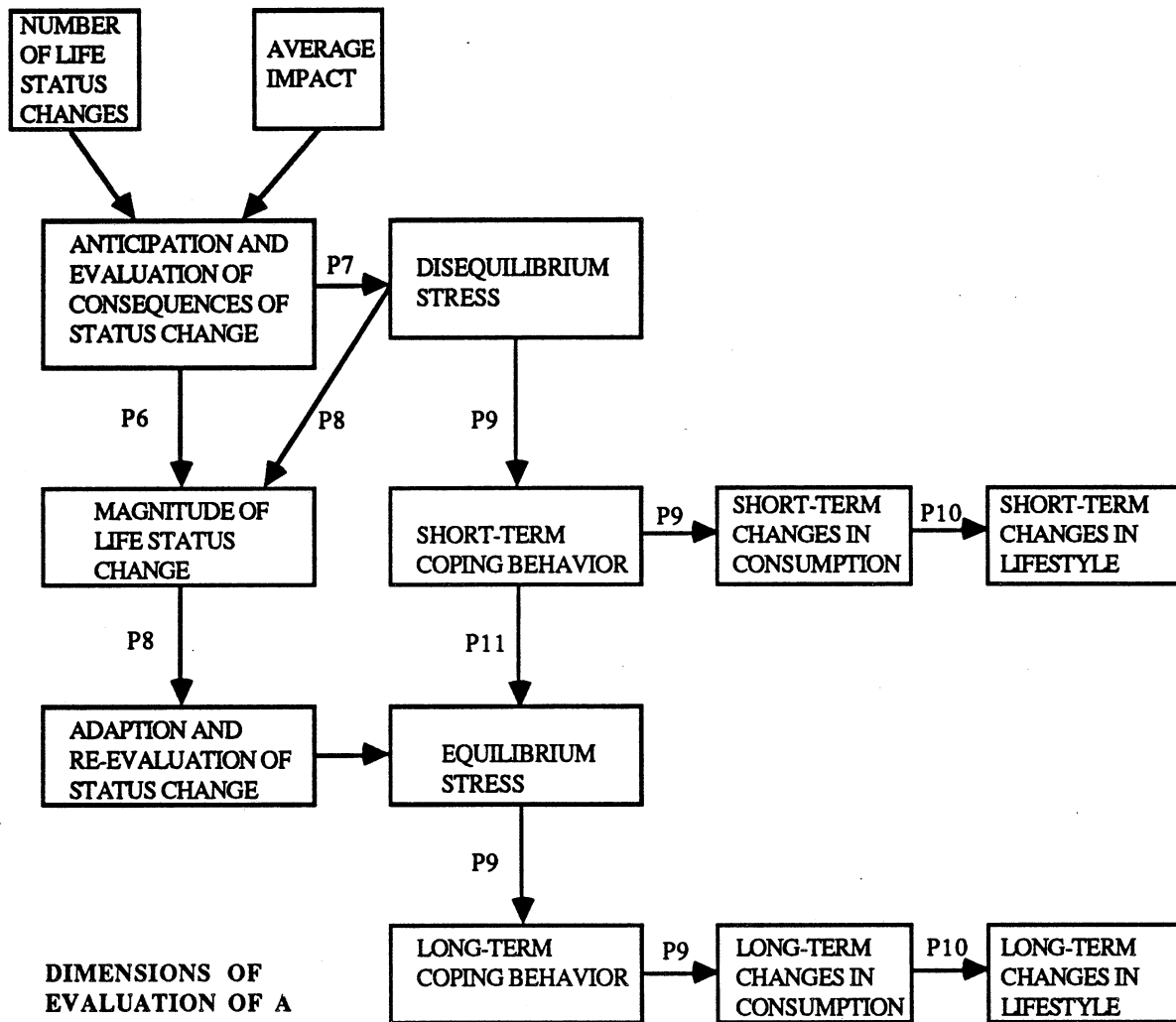
Andreasen proposes that the number of status changes and the impact of each change are positively related to the total magnitude of change experienced by the household. The magnitude of the change is positively related to shifts in lifestyle which in turn leads to shifts in consumption behavior. Andreasen also states that measures of status change should be seriously considered as predictor variables in

marketing, particularly when developing market segments.

Andreasen should be credited for introducing stress as a factor to be considered in consumer behavior. He asserts that the perception of stress occurs when an individual evaluates a status change and concludes that its consequences are negative. Stress leads to lower levels of satisfaction with life in general, and products, in particular. Andreasen hypothesizes that there is no direct relationship between stress and changes in consumption behavior, since some consumers may resist changing consumption as a means of coping with chaos elsewhere in their lives. Those who do elect to change consumption behavior, however, will experience more satisfaction with their product and service purchases.

One of the limitations of the Andreasen model is that it does not take into account the dimensions upon which individuals evaluate life status changes, which may result in positive or negative evaluations, and thus varying consumption behavior. Understanding these dimensions may enhance the explanatory power of the model and our understanding of the consumption outcomes. Nor does the model account for the temporal nature of the life status

FIGURE 2
Enhanced Life Status Change Model



DIMENSIONS OF EVALUATION OF A STATUS CHANGE (P1-P5):

1. Impact upon economic resources
2. Impact upon personal responsibilities
3. Impact upon social support structure

change, or the type of stress experienced by the individual or household over time. An individual or household may experience quite traumatic levels of stress in anticipation of and during the transition process. However, changes in life status can also lead to lifestyles which are simply more stressful. After the period of transition, the adaption to a new lifestyle means an adaption to the stressors which make up that lifestyle, and implies a shift in consumption as a means of coping with those stressors. Another limitation of the Andreasen model is that it underspecifies the relationship between stress and consumption; research on family dissolution and transition indicates that there are direct relationships

between stress and a much wider range of consumer constructs than outlined by the model.

Since each type of status change should lead to specific consequences which are unique to that change, the consequences of divorce should be specific to the divorce outcome (i.e., the division of property, custody agreements, and child support awards). Family dissolution can lead to significant changes along multiple psychological, social, and economic dimensions, and thus it is likely to have a profound impact upon the consumption of new family units. The pervasiveness of divorce throughout our culture, the size of the population which is affected, and the possibility that the consumption behavior and needs

of this segment are poorly understood make divorce and family dissolution a fertile area in consumer research for academics and researchers alike.

FAMILY DISSOLUTION AND THE EVALUATION OF A LIFE STATUS CHANGE

Research on family dissolution suggests possible refinements to the Andreasen model by providing insight into the way individuals evaluate the consequences of a status change. The research indicates that the primary dimensions along which individuals evaluate the consequences of a life status change are: 1) the impact on their economic well-being, 2) the impact upon personal responsibilities, and 3) the impact on social support structures, such as kinship ties.

It is suggested that the most negatively evaluated status changes may be those in which the individual or household is faced with increased responsibilities and decreased resources, such as in the case of families which are headed by divorced parents. Census data indicates that 36 percent of households headed by a single divorced parent live at or beneath the poverty level (U.S. Bureau of the Census 1991). The majority of mothers retain sole custody of their children. The survival of many divorced mothers depends upon child support; however, only 60 percent of divorced mothers heading a single-parent household receive a child support award (Teachman 1990). Of those who are awarded child support, only about 44 percent receive payment (U.S. Bureau of the Census 1991). The reduction in economic resources means that these households do not have the option of purchasing many of the goods and services that other households routinely use to deal with multiple responsibilities, such as hiring household help or dining out. The result is role overload, an increased perception of time urgency, and chronic levels of day-to-day stress. Propst et al. (1986) state that a large body of family dissolution research suggests that the higher levels of stress reported by divorced mothers is a result of financial difficulties. Single mothers may be more vulnerable than others to stress simply because they have fewer economic resources to cope with problems when they occur.

While the majority of divorced women experience substantial decreases in economic resources, men tend to experience stability or increases in economic resources (Kitson et al. 1989; Pett and Vaughan-Cole 1986). The combination of increased economic resources and decreased family responsibilities may lead some men to evaluate the consequences of divorce more favorably than women, and thus to experience less stress over time. Research on the gender effects of stress following marital dissolution has been sparse and inconsistent; however, Leupnitz (1986) found that when parenting is shared by joint custody arrangements, mothers experienced less stress.

A unique aspect of divorce with regard to the Andreasen model is that it is a transition which causes the household to dissolve and reform into two new households. Therefore, in the evaluation of the

consequences of divorce, a key component is the strength of kinship ties between children and their parents. While most life status changes do not result in the termination of the household, the importance of kinship ties following family dissolution underscores the influence not only of the emotional bonds within the family unit, but also of the family's social support structure in the community. Strong family ties and a network of friends who can be relied upon in times of crisis can mitigate many of the effects of life status transitions.

Many fathers continue to be actively involved with their children following family dissolution. The greater the father's role in his children's lives, the greater is his involvement with his children (Greif 1979). A key point obscured by the grim statistics on family dissolution is that non-custodial parents are not a homogeneous group. While Weiss (1975) found that reductions in visitation frequently occur over time, several studies indicate that, at least for certain demographic segments of divorced males, kinship ties remain intact and carry over into subsequent relationships. Although children from black and lower-income homes suffer the most economically, better educated men with greater socioeconomic resources tend to continue to provide for their children after marital dissolution (Teachman 1990). Weiss (1975) suggests that the three variables affecting the strength of kinship ties between divorced fathers and their children are social class, distance, and the ages of the children.

Research in family dissolution offers a unique opportunity to study the *process* by which households evaluate the consequences of a life status change. Changes in resources, responsibilities, and social support structures, such as kinship ties, are often dramatic, and may occur simultaneously, thus providing insight into how the interaction of these dimensions affects evaluations of status changes. Also, the effects are long-term and enduring, allowing researchers to study the links between status changes, stress, and consumption behavior suggested in the Andreasen model. This discussion leads to the following set of propositions:

- P1: Households evaluate the consequences of a life status change according to the impact upon economic resources, upon personal responsibilities, and upon social support structures, such as family ties.
- P2: Changes in resources, responsibilities, and social support structures interact to affect evaluations of the consequences of a status change.
- P3: Increases in the level of economic resources brought about by a status change positively affect the problem solving capacity of households who face increases in responsibilities; decreases in the levels of resources brought about by a status change

negatively affects the problem solving capacity of households in similar circumstances.

- P4: In the long-run, households who experience decreased economic resources and increased responsibilities following a life status change experience greater levels of daily stress, which results in a negative evaluation of the change; households who experience increased economic resources and decreased responsibilities following a life status change experience lower levels of daily stress, which results in a positive evaluation of the change.
- P5A: The strength of emotional bonds within the household and the quality of the household's structure network positively affects the ability of the household to cope with stress.
- P5B: Life status changes which positively impact an household's kinship and/or social support structure positively impact the family's ability to cope with the change; life status changes which negatively affect a household's kinship and/or social structure negatively impact the household's ability to cope with the change.

FAMILY DISSOLUTION AND STRESS

Family dissolution research indicates that the relationships between stress and life status changes, changes in lifestyle, and the evaluation of status changes may be more complex than originally perceived by Andreasen, and suggests several links which are not specified by the model. First, the *anticipation* of divorce is highly likely to be stressful. (Bloom and Caldwell 1981). Divorce or separation seldom comes as a complete surprise to partners; generally spouses carefully think over the pros and cons of marital dissolution, discuss family problems with friends and relatives, and/or consult with family counselors prior to dissolution. If stress can occur with a life status change, then stress can also occur prior to a complete evaluation of the consequences of that change because some of the consequences cannot be known prior to transition. In other words, part of the stress associated with a life status change may be caused by fear of the unknown.

Second, Andreasen views stress as a single dimension. Stress may actually be broken into two dimensions: disequilibrium and equilibrium stress. Disequilibrium stress can be interpreted in terms of crisis and recovery. As individuals move from familiar to unfamiliar life status positions they temporarily experience higher levels of stress, which decline with time and adaptation to the transition. The transition process brought about by marital dissolution can be especially traumatic. Following family dissolution, individuals may be simultaneously required to cope

with the loss of a key relationship, changes in social status, dividing up property, moving, purchasing new household goods, work, financial difficulties, domestic responsibilities, and childcare. It is not surprising that divorce is rated among the most traumatic events to which to adjust (Dohrewend et al. 1978). In extreme cases, when a traumatic transition such as death of a family member or divorce is unexpected, disequilibrium stress may be so severe that it produces a state of shock which *impedes* assimilation and evaluation of the status change (Kitson 1982; Parks and Weiss 1983).

Equilibrium stress is the day-to-day level of stress associated with one's particular lifestyle. Cohen, Kamarck, and Marmelstein (1983) contend that stress occurs when two conditions are met: 1) that the situation is evaluated as threatening or otherwise demanding, and 2) that insufficient resources are available to cope with the situation. These antecedents of stress are part and parcel of the lifestyle of the divorced custodial parent. A substantial body of research has found that single parents experience more anxiety, depression, and dissatisfaction with their lives than those in dual-parent families (Bachrach 1975; Fine, Schwebel, and Myers 1985; Weiss 1979). Wallerstein (1986) found that a significantly larger percentage of women than men continued to experience symptoms of stress for as long as 10 years after marital transition. The high level of stress commonly experienced by single divorced parents have led some researchers to question whether divorce should be treated as a life crisis or a chronic stressor (Kitson et al. 1989). This suggests that divorce may signal an increase in levels of equilibrium stress which can extend for years beyond the period of marital transition. This discussion leads to the following following propositions:

- P6: Stress can occur in anticipation of a life status change and thus prior to the life status change.
- P7: Stress can be broken down into two dimensions: 1) disequilibrium stress, which occurs during the period of transition and declines after adaption to the transition, and 2) equilibrium stress, which is the level of daily stress associated with one's lifestyle.
- P8: Stress can impede the evaluation and assimilation of a life status change.

FAMILY DISSOLUTION AND THE EFFECTS OF STRESS AND ROLE OVERLOAD ON CONSUMPTION BEHAVIOR

Although Andreasen hypothesizes that there is no direct relationship between stress and consumption behavior, other consumer researchers, such as Celuch and Showers (1990), make a convincing case to the contrary. Offering several examples of how stress can directly affect consumption, Celuch and Showers contend that the antecedent conditions of daily stress

are more predictive of consumption behavior than infrequently occurring life status changes which are the focus of the Andreasen model. The contribution of research on family dissolution is that it suggests that both conceptualizations can be reconciled and are, in fact, mutually enhancing. By broadening the focus of the Andreasen model beyond the period of transition to include the effect of status changes on daily levels of stress, insights can be gained into the process of how changes in life status bring about changes in consumption. Examining how *specific* status changes affect the antecedent conditions of daily stress allows predictions to be made about how certain demographic trends, such as divorce, may affect the consumption behavior of significant segments of the population.

Celuch and Showers also contend that stress can be directly linked to changes in consumption behavior as a result of two types of coping behaviors, mood regulation and problem solving. An obvious example of consumption behavior used to regulate mood is the use of products such as tobacco, alcohol, and drugs. In a study on marital dissolution and psychological well-being, Doherty, Su, and Needle (1989) found that women tend to increase their use of alcohol and other mood-altering substances following marital dissolution. A less obvious example of consumption behavior used to regulate mood is the use of mental health services. Divorced single mothers form the largest group of mental health consumers in the United States (Gutentag and Belle 1980).

Stress can also affect consumption behavior when a consumer uses products or services to solve the problems causing stress. Some individuals may change consumption behavior in order to solve *anticipated* problems. Several studies indicate that the contemplation of marital dissolution may lead a shift to autonomous decision-making and consumption behavior prior to the actual separation of the couple. Germer, Montalto, and Bryant (1990), found that women increased their participation in the workforce in the year or two prior to divorce. During a study on marital dissolution conducted by Kitson, Babri, and Roach (1985), several female respondents informally told them about opening personal bank accounts, saving money, putting the title for a new car in their names, establishing their own credit records, and/or returning to school.

Family dissolution can lead to role overload, which is an antecedent of chronic day-to-day stress. In interviews with over 200 single parents, Weiss (1979) found that, although parents reported that they were managing their responsibilities at home and at work, most described their situation as burdensome. In a study by Fine, Swebel, and Myers (1985), 60 percent of mothers reported that their children saw their fathers less than once a month, and that their former spouses offer little assistance with daily activities. Over half of the mothers reported that the worst part of being a mother was the 24-hour-a-day commitment. Pearlín and Johnson (1977) found that symptoms of stress experienced by single divorced mothers were positively correlated with the number of children in the household, and negatively correlated with the ages of the children.

When role-overloaded divorced parents attempt to reduce stress by cutting down on household tasks or reallocating them among family members, changes in consumption may occur. Comparative time-studies of married and single mothers indicate that marital status affects how time is allocated between housework, workforce participation, childcare, leisure and other activities (Mauldin and Meeks 1990; Sanik and Mauldin 1986). The reduction in time spent on housework which has been noted by many researchers may be due to reallocation of tasks to children within the family unit. Weiss (1979) reported that children in single parent families often assume more responsibilities in the household than do children in families with both parents intact.

For single-parent families in which children assume increased responsibilities for household tasks, it seems likely that those children also become more influential in making decisions regarding household purchases. Ahuja and Schuster (1991), in summarizing the conclusions of five marketing studies examining parental perceptions of children's influence in family decision making, found that single parents depended more on their children for help in the home, and that these children had more influence upon purchase decisions within the family unit.

When childcare is unaffordable, single parents may be forced to shop with children in tow. Shopping may become more stressful and result in less browsing behavior and fewer stores visited. Colletta (1983) found that working mothers reported shopping often with their children, that shopping was more stressful, and that it frequently resulted in impulse purchases of things which the children demanded. Single parents may rely on older children to go to the store to pick up items which are needed. When this occurs, although the actual consuming unit has not changed, the individual who makes the brand purchase decisions has. Several manufacturers are already experimenting with products for children which have traditionally been promoted to adults, such as microwave meals and bathroom cleansers. The preceding section leads to the following propositions:

- P9: Stress is directly linked to consumption through the coping behaviors of mood regulation and problem solving, and thus affects consumer behavior throughout the consumption experience, from purchase selection to post-purchase evaluation.
- P10: Changes in consumption as a result of coping behavior lead to changes in lifestyle.
- P11: The change in daily levels of equilibrium stress following a status change is a better predictor of consumption behavior than disequilibrium stress experienced during the transition process.

CONCLUSION AND SUGGESTIONS FOR FUTURE RESEARCH

This paper has focused in depth on a specific type of life status change which occurs frequently and whose impact causes a dramatic change in the family structure. A review of the family dissolution literature suggests several refinements to the Andreasen model. An important consequence of a life status change is its impact on equilibrium levels of daily stress associated with an individual's or household's lifestyle. Research on family dissolution suggests that levels of daily stress directly affect consumption through the mechanism of coping behaviors. Studies of households headed by single parents appear to be particularly promising in this regard.

The increasing trend toward joint custody agreements presents a challenge to researchers interested in studying the effects of family dissolution on consumption behavior. For example, how does a researcher define a family when spouses divorce, and their children split their time living with both parents, perhaps as part of blended households with their parent's new partners who also have similar childcare arrangements. The existence of ongoing relationships between divorced parents and their children is likely to be reflected in the consumption behavior of both households. When parenting is shared by joint custody arrangements, mothers have more time for personal and social activities, and thus experience different consumption patterns (Leupnitz 1986). Traditionally, family life cycle categories have lumped non-custodial parents in with other single adults, yet, when non-custodial parents are actively involved with their children, their consumption behavior is likely to be markedly different from other single adults. In one study on joint custody, all of the fathers had set up living space with special toys and clothing for their children; their children did not bring suitcases when they visited (Greif 1979).

A particularly useful tool for measuring the effect of family dissolution upon household consumption would be the development of a child burden index measuring the number, age, gender of the children in the household, as well as the level of involvement of the non-custodial parent. Variables measuring involvement might include the amount and regularity of financial assistance, length and duration of visitation, and the type of visitation (telephone calls, daily outings, extended visits, participation in school activities, care of sick children, etc.) Celuch and Showers (1990) suggest including measures of perceived time urgency as a predictor of stress induced changes in consumption behavior. These measurements could then be correlated with a wider variety of consumption activities in order to more fully capture the effects of family dissolution on the consumption behavior of households headed by *both* former spouses. Variables which seem likely to be affected by the present or absence of role overload include comparison shopping, browsing behavior, impulse purchases, frequency and duration of shopping trips, the relative influence of children upon the

consumption behavior of the household, and types of products and services purchased.

Another issue is the long-term effect of family dissolution on overall consumer trends. When a household unit is dissolved, it reforms into two households whose members carry information about the effects of the transition into their new relationships. If a transition, such as divorce, affects how an individual makes decisions, is there a cumulative effect of multiple status changes of the same type upon decision-making? Individuals may experience several divorces over the course of a lifetime, first as a child when parents divorce, then as an adult when they divorce. Do individuals who experience multiple family dissolutions exhibit consumption behavior that reflect their experience that permanence is not an intrinsic part of the family relationship? Some assets may be divided up only with difficulty should a divorce occur. If the accumulation of assets such as a house or business—or even the birth of a child—can result in loss or increased financial liability should a marriage dissolve, individuals who have experienced multiple family dissolution may be less inclined—or unable to afford—to engage in some types of consumption. Divorce financially batters people, and makes it difficult to build up assets over time. A long-term effect of the instability of the family unit may be a cultural shift to more autonomous and hedonic types of consumption.

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Measuring Conflict in Household Decision Behavior: Read My Lips and Read My Mind

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ABSTRACT

In the present paper we empirically test the premise that husbands and wives, when involved in a joint decision task, experience both manifest (explicit) and cognitive (implicit) conflict. While manifest conflict affects the specific decision task at the time of the decision, cognitive conflict affects the current as well as future decision tasks. Results are presented from a field study of husband and wife households which indicates that significant conflict exists in household decision behavior and that husbands' and wives' similarity/dissimilarity affect the degree of household conflict and the method of conflict resolution.

INTRODUCTION

Research on household conflict is relatively sparse, and mostly conceptual. Little attention has been given to how conflict evolves in the event of a joint decision making task and to the ensuing conflict resolution process that takes place. However, it is our contention that household conflict plays a far more central role in the understanding of family decision making (FDM) than what its present treatment in the literature indicates. We agree with the conclusion of both Davis (1976) and Granbois (1971), that "understanding household conflict is critical to understanding the dynamics of household decision behavior and the decision strategies employed in family decision making".

A theoretical paradigm called interpersonal conflict proposed by Hammonds (1965, 1973) provides a useful framework for examining the process of conflict in household decision behavior. Specifically the interpersonal conflict paradigm suggests that when two people involved in a joint problem solving task experience conflict; they experience both explicit (manifest) and implicit (cognitive) conflict. Hammonds (1965, 1973) contends that the cognitive conflict experienced by an individual affects not only the current decision but future decisions as well. The process of conflict and conflict resolution is in effect a learning experience which the individual uses to update his/her understanding of the decision making preferences of other household members. If indeed one views FDM as a dynamic process in which every decision constitutes a learning experience for the participants, then the events which lead to conflict and the way conflict is resolved will constitute important pieces of information. The purpose of the present paper is twofold: 1) To examine the efficacy of the interpersonal conflict paradigm for explaining household decision behavior, 2) To develop and test an objective measure of conflict and conflict resolution.

THE COGNITIVE CONFLICT PARADIGM

The theoretical paradigm underlying the present study is based on social judgment theory (Hammonds 1973). The paradigm is conceptualized in a way that lends itself well to the formulation of a framework from which to examine interpersonal conflict in household decision behavior. The basic premise of the Hammonds paradigm is that in addition to the existence of *manifest conflict*, two people in a joint problem solving task also experience a degree of *cognitive conflict*. Manifest conflict is defined as the explicit conflict individuals experience when there are differences over desired outcomes or disagreements over the perception of influence. Cognitive conflict is defined as the difference between an individual's own desired outcome or perceived influence and what the individual thinks his/her partner desired outcome or influence perception will be.

Hammonds (1973), recommends certain conditions under which the cognitive conflict paradigm is best illustrated, and suggests that the cognitive conflict paradigm is best described as the interaction between two people who: 1) Attempt to solve mutual problems, 2) Have mutual utilities (ability to gain or lose), 3) Receive different training in a solution to a problem, 4) Find that their answers differ, 5) Provide a joint solution as the correct one, 6) Adapt to one another as well as to the decision task.

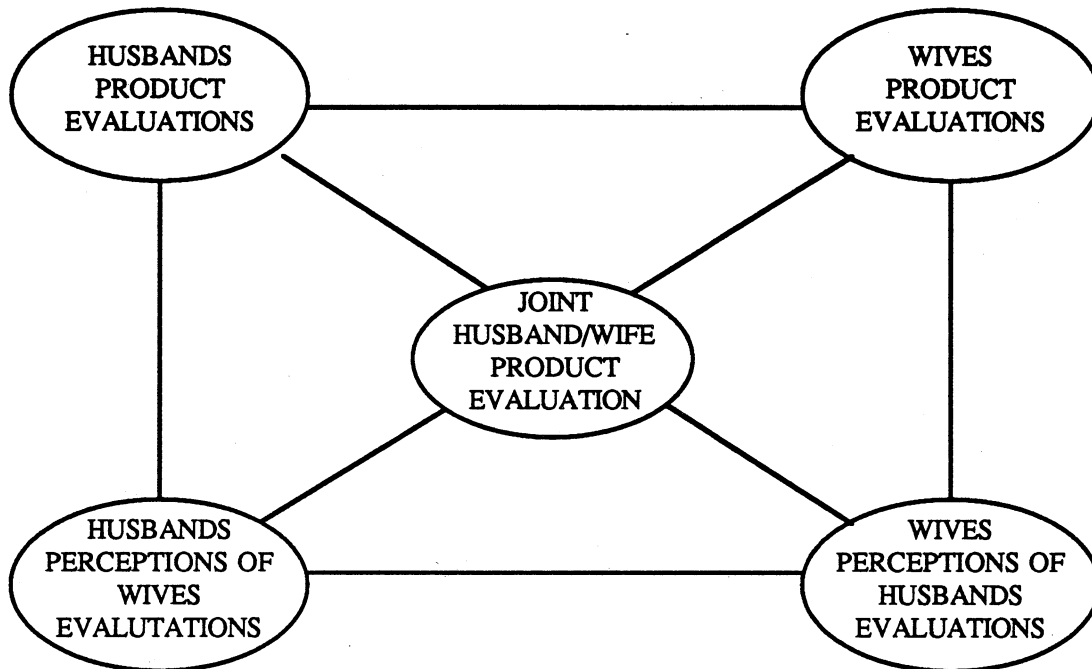
Households in which family members engage in joint decision making typically can involve family members with different preferences and attitudes who are motivated to reach a joint solution. To reach their joint solution, family members may have to modify their original preference positions or attitudes to ensure that a decision is made.

A CONCEPTUAL MODEL OF HOUSEHOLD DECISION BEHAVIOR

The assumptions implicit in our conceptual model are as follows: 1) conflict in a household occurs when both husbands and wives have different perceptions regarding the distribution of influence or different preferences about the object of the decision; 2) these preferences and/or role perceptions occur as a result of the different socialization experiences of these individuals; and 3) husbands and wives have learned over the course of their relationships about the other one's preferences and should be able to predict these preferences, even though they themselves may disagree with them.

The conceptual model presented in Figure 1 outlines the proposed relationships between a husband and wife involved in the evaluation of a product to be used by both the husband and wife. The model suggests that three types of judgments are of relevance when husbands and wives are involved in a joint

FIGURE 1
Conceptual Model of Household Conflict



decision task: 1) Individual judgments (i.e., product preferences, attribute importance), 2) Prediction of their spouses' individual judgments (for the same product preferences, or attributes), 3) Joint consensus judgments (of the same products, or attributes)

Individual judgments are needed to measure the existence of manifest conflict (i.e. difference between h/w individual judgements and joint product evaluations), while the prediction of a spouses' judgment is needed to measure the extent of cognitive conflict (differences between H/W individual judgements and perceptions of spousal judgements). Finally, joint evaluations represent the household utility associated with a specific decision outcome.

Unlike the original paradigm proposed by Hammonds (1965) the present model treats individual differences as a natural phenomenon resulting from the socialization of husbands and wives as a couple. Rappoport (1969) found that subjects who are different in the way they interpret information are more likely to experience conflict. Several variables have been found by FDM researchers that differentiate the decision behavior of husbands and wives, namely sex role orientation (Qualls 1987, Rosen and Granbois 1983), perception of influence (Davis and Rigaux 1974), and decision importance (Morgan 1961). A spouse's sex role orientation helps to determine the gender attitudes held by spouses which impacts the perception of influence (Qualls 1987). The perceptions of influence held by husbands and wives determine the extent of involvement in decisions. The perception of influence and its impact upon FDM practices is well documented in the research literature

(Davis 1970, 1971). Finally, the importance of the decision helps determine the exercise of influence (Morgan 1961).

Based on the importance of these constructs as an explanatory variable in previous research, it is hypothesized that an individual spouse's perception of their 1) sex role orientation, 2) influence, and 3) decision importance can be used as a measure of the similarity or dissimilarity between husbands and wives perceptions. As such we propose to test the following hypothesis:

- H1 Husbands and wives with similar perceptions regarding sex roles, decision influence, and decision importance will exhibit less conflict than husbands and wives with dissimilar perceptions.

Park (1982) found that it was fairly easy for husbands and wives to determine the other spouses' preference levels on salient objective dimensions as opposed to salient subjective dimensions. Such evidence suggest that the learning of each other's preferences by husbands and wives affects spouses' individual preference positions. The question of the degree of learning is yet unanswered but work by Davis, Hoch, and Ragsdale (1986) suggests that husbands and wives can better predict their spouse's ratings with their own ratings than they can by guessing the preference ratings of their spouse. Both studies appear to suggest that there is an exchange of information exchange that takes place between husbands and wives, which can contribute to learning.

This process of learning enables spouses to resolve potential conflict between husband and wife individual preferences cognitively before any interaction over the decision between spouses. Such behavior may lead to low levels of manifest conflict.

Burns and Granbois (1977) found (using the difference between first choices of husbands and wives) revealed very little discrepancy between husband and wife preferences, resulting in low levels of household conflict. We propose that the similarities in first choice preferences between husbands and wives may reflect the process of interpersonal learning and masks the presence of cognitive conflict. If cognitive conflict occurs, then there would be agreement between spouses on what the first choice is, however, underlying disagreement over subdecisions, or alternative individual preferences. The presence of individual preferences that do not match the joint preferences exhibited by a household, represents disagreements that are not manifested but concealed. In the above scenario, husbands and wives know what their spouse's choice might be, agree with their spouse to reduce conflict, but still hold on to their original preference positions. On the other hand, in the absence of interpersonal learning, spouses show their differences immediately on their first choices, as husbands and wives do not have any information on the preference position of their spouse. Conflict can be caused by either the exercise of influence by one family member or of the frustration of one spouse whose individual preferences are not met by the actual decision outcome. The difference in origin is important as the exercise of influence is an indicator of manifest conflict, while unfulfilled perceptions of influence or decision preferences would result in cognitive conflict. Based on this discussion, it is hypothesized that:

- H2 The greater (less) the degree of manifest conflict, the less (more) likely cognitive conflict will occur.

Household conflict is highly probable when one considers that the individual preferences of multiple family members must be combined and reconciled into a joint preference before any purchase decision is made. Thomas (1976) contends that conflict resolution behavior can be conceptualized as a function of 1) the extent to which a party tries to satisfy his/her concerns and 2) the extent to which a party tries to satisfy the concerns of others. Thomas' idea can be extended here to mean that the reason that one party tries to satisfy the concerns of the other reflects their ability to do so. In the present study it is suggested that in households that are similar, spouses will attempt to reach a compromise through bargaining and negotiation because of their understanding of each others preference positions or household roles. However, in cases of dissimilar households spouses will be unable to understand the other one's position and will not have the ability to understand the needs of the other party. In that case it is expected that the most likely mode of conflict

resolution will be concession by one of the spouses. Accordingly, it is hypothesized that:

- H3a Households which share similar husband/wife perceptions will compromise and bargain more frequently than households which are dissimilar
- H3b Households with dissimilar husband/wife perceptions structures will concede and avoid conflict more often than households with similar perceptions.

The hypotheses and the proposed relationships in the conceptual model are examined and tested in the next section.

METHODOLOGY

Subjects for the study consisted of 63 husband and wife households recruited from a cooperative housing complex which catered to married graduate students, located in a midwestern college town. Each couple was paid an honorarium of 20 dollars for their participation. Households were told they were participating in a survey by a major automobile firm who wanted to know their feelings on a new automobile to be marketed in the future. Only those couples who had indicated a probability of purchase of 70 percent or higher were recruited to participate in the study.

The automobile purchase decision was selected as the household decision task because it has proven to be a joint decision, important to husbands and wives and a product likely to be used by both spouses in previous research (Davis 1970, Green and Cunningham 1975). Based on the medium-sized car category, nine product concepts were created. Each concept was composed of several different product attributes known to be important criteria in the decision to purchase an automobile. The attributes included, color (red, blue, grey, tan), price (\$10,000, \$14,000, \$20,000), city mileage per gallon (12, 16, 20), manufacturer warranty (3 years/30,000 miles, 4 years/40,000 miles, 5 years/ 50,000 miles), and predicted repair record (above average, average, below average).

Data for the study was collected in two phases. In phase one, husbands and wives were asked to individually evaluate the automobile product concepts and to rank order these concepts according to their preferences. In addition, information was collected to capture the individual's sex role orientation, importance of the decision, and perception of influence across the product attributes. The second phase of the study, which immediately followed the first phase, was a joint decision task in which husbands and wives were asked to jointly rank order their preferences. The session took about 50 minutes to complete. If couples could not agree, they were allowed to stop the interview, but only after attempting to resolve any conflict.

The primary measurement variables are summarized in Tables 1 and 2. An index of husband/wife similarity was developed and used as

TABLE 1
Summary of Principal Measurement Variables

Measurement Variables	Scale	Number of Items	Example
Sex Role Orientation (alpha = .86) decisions.	5-point Agree/Disagree	30	A wife should not have equal authority with her husband in making household
Decision Importance (alpha = .92) family car?	5-point Very Important Not Important	5	How important is it that you participate in making the decision about the
Perceived Influence (alpha = .77)	Constant Sum	5	In your family the fair proportion of husband/wife influence when making decisions about:
Husband/Wife Product Evaluations	Rank Order	9	Rank order the following automobile product concepts from first choice influence when making decisions about: to last choice.
Husband/wife Perceptions of Spouses Product Evaluations	Rank Order	9	Rank order the following automobile product concepts from first choice to last choice based on how you think your spouse will rank order them.
Household Conflict Resolution (alpha = .69)	5-point Agree-	20	I will give into my husband(wife) preferences to maintain peace in the family.

criteria on which the households were classified. Specifically, the index was calculated by defining household cognitive structure (HCSI) as:

$$HCSI = \frac{H_s \cdot W_s + H_{pi} \cdot W_{pi} + H_{di} \cdot W_{di}}{H_s + W_s + H_{pi} + W_{pi} + H_{di} + W_{di}}$$

where:

- $H_s W_s$ = Husband/wife sex role orientation
- $H_{pi} W_{pi}$ = Husband and Wife perception of influence
- $H_{di} W_{di}$ = Husband and wife decision importance

If the HCSI is greater than .55 the family was classified as cognitively different and if the HCSI is less than .45 the household was classified as cognitively similar. Those households that fell in between .45 and .55 were excluded from the final

sample. Only three households fell in the middle, reducing the original sample to 60 households.

Previous research has relied heavily on a single measure of conflict. In the present study, the construct of conflict is based on multiple measures which were calculated from the information obtained from key theoretical variables measured with paper and pencil tests.

- 1) *Overall relative influence* -- is calculated as the difference between the correlations between husbands' and wives' perceptions of influence.
- 2) *First Choice* -- is determined by the difference between the correlation of husbands' first choice preferences and wives' first choice preferences.
- 3) *Overt Conflict* -- is the difference between the correlation of the product evaluations

TABLE 2
Degree of Husband/Wife Similarity and Household Conflict

	FIRST VARIATE	SECOND VARIATE	THIRD VARIATE	FOURTH VARIATE
<i>HUSBANDS</i>				
Perceived Influence	-.888	-.051	-.851	.307
First Choice Preferences	.358	-.427	.935	.049
Husbands' Product Preferences	-.454	-1.15	.163	.214
Husbands' Spousal Preferences	.104	.065	-.864	.831
Husbands' Conflict	-.006	-.431	-.305	-.281
<i>WIVES</i>				
Perceived Influence	.647	-.742	-.285	.924
First Choice Preferences	.207	-.299	-.061	.223
Wives' Product Preferences	.474	-.660	-.590	.750
Wives Spousal Preferences	.271	-.098	-.545	.024
Wives Conflict	-.320	-.689	-.406	.837
Canonical Correlation	.80	.66	.42	.37

a = significant at the .05 level

- produced individually by the husband and wife.
- 4) *Cognitive Conflict* -- is the difference between the correlations of the perceptions husbands/wives hold of how their spouses would rank order product concepts and the rankings produced individually by the husband and wife.
- 5) *Husbands' Conflict* -- is the difference between the correlation of husbands'

product concept evaluations and joint household preference rankings.

- 6) *Wives' Conflict* -- is the difference between the correlations of wives' product concept evaluations and joint household preference rankings.

The final set of measures employed in the present study was that of conflict resolution mode. A multiple measure of conflict resolution is employed to tap both the objective and subjective dimensions. A 20 item scale was developed and tested to confirm the

strategies used, specifically, four modes of conflict resolution were hypothesized a priori to exist:

- 1) *Competition* - represents attempts by a spouse to completely dominate a decision.
- 2) *Concession* - involves a spouse adhering to the preferences of the other spouse either unconditionally or conditionally in return for some future consideration.
- 3) *Bargaining* - efforts by husbands and wives to achieve a balance between their original individual preference positions.
- 4) *Avoidance-Withdrawal* - refers to inactivity or lack of action on a decision issue.
- 5) *Capitulation* - is defined when one spouse gives in to the preferences of the other, which was operationalized as the correlations between a spouse's individual preferences and spouses' with their joint preferences.
- 6) *Compromise* occurs when neither the first choice of the husband or wife is chosen jointly as the household choice.

Canonical correlation is used to evaluate the nature of the conflict relationship and examine the hypothesis that husbands and wives with similar cognitive structures will exhibit less conflict than those spouses with dissimilar cognitive structures. It is especially suited for examining phenomena which incorporate multiple dependent variables and multiple independent variables.

RESULTS AND DISCUSSION

Tables 2 and 3 provides an illustration of the results of the canonical correlation analysis used to test hypothesis 1. As indicated in Tables 2 and 3, the first canonical variate is made up largely of husbands' and wives' perception of influence for cognitively similar husbands and wives with a corresponding canonical correlation of .80.

Conversely, for dissimilar husband/wife households, the first canonical variate is determined by husbands' and wives' product preferences, with a canonical correlation of .53. As expected, husband/wife similar households exhibit less conflict than husband/wife dissimilar households. Stated another way, in husband/wife similar households, husbands and wives share similar perceptions of the levels of influence, first choices, product preferences, and spousal preferences.

For husband/wife similar households, the major discrepancy lies with the perception of influence and how it should be distributed between husbands and wives, while husband/wife different households disagree on the preference rankings between husbands and wives.

Table 4 presents the results of the canonical correlations used to test hypotheses 2. The predictive

canonical variate is based mainly on husbands' and wives' perception of influence (.708), wives' conflict (.626), and husbands' conflict (.606). The first canonical variate is largely determined by the perception of decision importance perceived by husbands and wives (-.824), and their joint preference rankings (-.676). The canonical correlation is .967, which when squared suggests that the level of explanatory power is .93 percent. It appears that as the level of decision importance increases and joint decision behavior takes place, households experience the greatest conflict between husbands' and wives' perceptions of household influence, and husband and wife conflict over individual preferences. The fact that discrepancies between husbands' and wives' perception of influence is larger than the correlation between wife and husband conflict provides support for hypothesis 2.

Examination of the second canonical variate suggests the overt conflict (-.695) and wives' conflict (.578) are correlated at the .805 level primarily with husbands' preference rankings (.615). As Table 2 illustrates the second dependent variate is mostly composed of overt conflict, wives' conflict, and conflict between husbands' and wives' perceptions of influence. The source of this conflict appears to be related to the husbands' preference rankings, with approximately 64 percent of the unexplained variance captured. The results suggest that there is a large discrepancy between wives' preference rankings and the final choice, which closely resemble husbands initial choices.

The one underlying theme observed in the results is the dominant role that wives' conflict, cognitive conflict and overt conflict play in determining the level of household conflict. Conversely, the effect of first choice differences between husbands and wives is minimal and almost nonexistent beyond the first canonical variate.

The second hypothesis examines the extent of cognitive conflict exhibited through first choice differences, as a measure of household conflict, when compared to alternative measures of conflict. Although the first choice measure (.615) contributed to the power of the overall measure of conflict, it did not act as the dominant or sole source of household conflict. Beyond first choices significant conflict occurs as a result of differences between individual spousal preference positions and the joint household decision. Such results also provide support for the hypothesis and the contention that multiple measures of conflict are better suited for measuring the true extent of household conflict. The use of multiple measures reveals a high level of conflict in household decision behavior. This contradicts the findings of earlier studies which relied on more objective measures such as the differences between first choices.

HOUSEHOLD CONFLICT RESOLUTION

Figure 2 illustrates the results of the canonical correlation analysis performed to test hypothesis 3. As Figure 2 illustrates there is a strong correlation between the mode of conflict resolution and the characteristics of husbands and wives from both

TABLE 3
Degree of Husband/Wife Disimilarity and Household Conflict

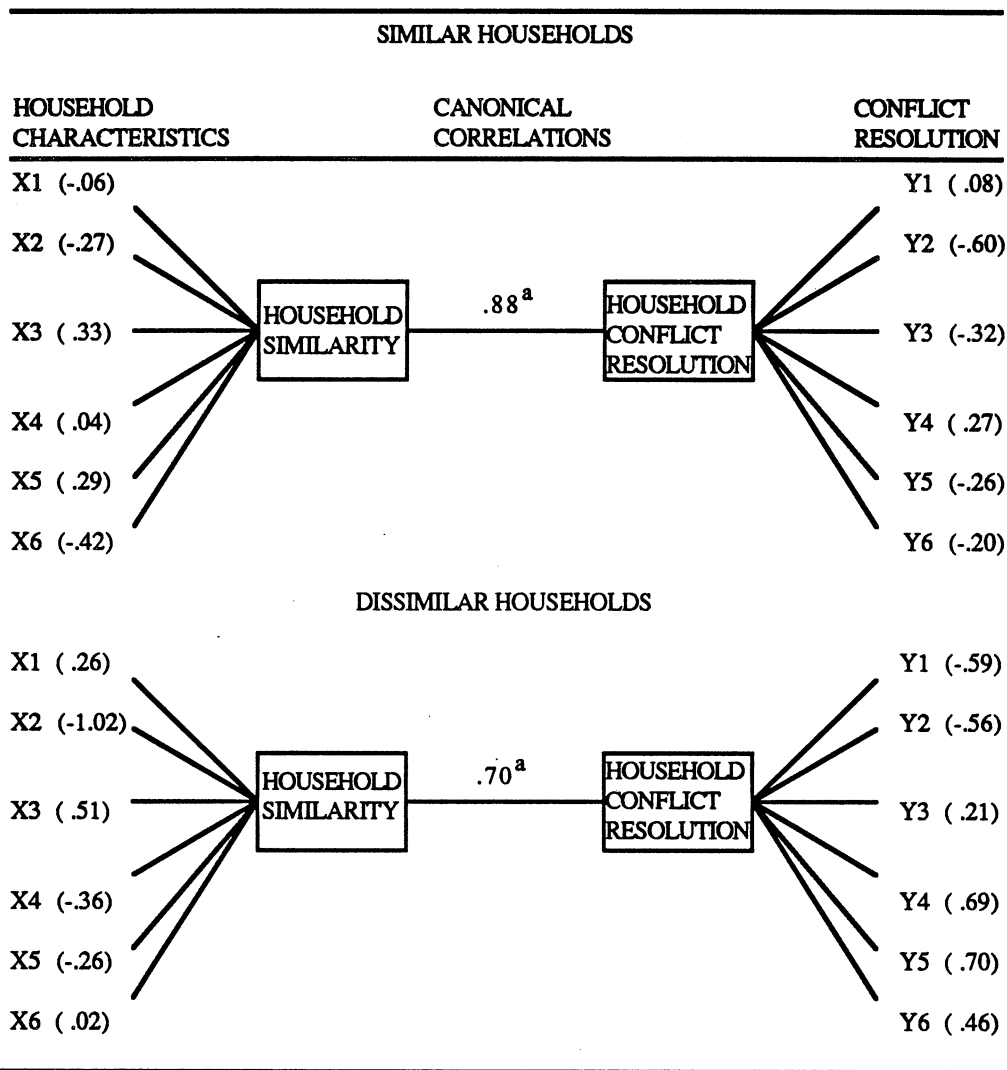
	FIRST VARIATE	SECOND VARIATE	THIRD VARIATE	FOURTH VARIATE
<i>HUSBANDS</i>				
Perceived Influence	-.526	-.141	.098	-.811
First Choice Preferences	.222	.171	-.144	-.076
Husbands' Product Preferences	.669	-.443	-.596	-.486
Husbands' Spousal Preferences	.252	.309	.211	.207
Husbands' Conflict	-.533	.127	-.682	.397
<i>WIVES</i>				
Perceived Influence	-.319	.896	-.202	.120
First Choice Preferences	.086	.170	-.330	.619
Wives' Product Preferences	.729	.100	.537	.429
Wives Spousal Preferences	-.425	.532	.417	-.539
Wives Conflict	.507	.005	-.826	-.227
Canonical Correlation	.53	.40	.32	.18

a = Significant at .05 level

TABLE 4
 Discrepancies in Household Preference Rankings
 Canonical Variates and Correlations

	FIRST VARIATE	SECOND VARIATE	THIRD VARIATE	FOURTH VARIATE	FIFTH VARIATE
<i>HOUSEHOLD PREFERENCES</i>					
Husband Preferences	.087	.615	.485	-.719	-.345
Husband Spousal Preferences	-.019	.241	.774	.589	.105
Wife Preferences	.075	.549	.480	.491	-.252
Wife Spousal Preferences	-.079	-.306	.147	.073	.397
Joint Preferences	-.676	.237	.103	.334	-.643
Decision Importance	-.824	-.529	-.087	-.156	-.366
<i>HOUSEHOLD CONFLICT</i>					
Perceived Influence	.708	-.504	-.243	.217	.124
First Choice	.615	-.203	-.056	.324	.405
Overt Choice	.550	-.695	.034	-.807	-.101
Cognitive Conflict	.477	-.434	.632	.384	-.791
Husband Conflict	.606	.142	.228	-.184	.298
Wifes Conflict	.626	.578	-.538	.865	-.637
Canonical Correlation	.967	.805	.452	.312	.124
a = significant at .05 level.					

FIGURE 2
Degree of Husband/Wife Similarity and Household Conflict Resolution



a=significant at the .05 level

X1-Husbands Sex Role Orientation
 X2-Husbands' Perceived Influence
 X3-Husbands Decision Importance
 X4-Wives' Sex Role Orientation
 X5-Wives Perceived Influence
 X6-Wives' Decision Importance

Y1-Concession
 Y2-Bargaining
 Y3-Competition
 Y4-Avoidance-Withdrawal
 Y5-Capitulation
 Y6-Compromise

husband/wife similar and husband/wife different households. For husband/wife similar households, the conflict resolution mode of bargaining is largely determined by the level of decision importance perceived by husbands and wives. This is to say that the more important the decision is to the household, the more likely bargaining will be employed to resolve conflicts between husband and wife preferences.

Conversely, for husband/wife different households, the most common form of conflict

resolution appears to be capitulation and avoidance-withdrawal, largely determined by the importance of the decision to wives' and husbands' perception of influence. While avoidance-withdrawal and capitulation are the conflict resolution modes of choice for husband/wife different households, concession, bargaining and compromise are also used frequently to resolve household conflicts. Given these results, only partial support can be claimed for hypotheses 3a and 3b.

SUMMARY AND CONCLUSIONS

The results presented in the analysis of the study's hypotheses are strongly supportive of the premise that significant conflict exists in most household decisions involving the joint participation of two or more family members. The hypothesis that differences in husbands' and wives' similarity/dissimilarity affect the degree of household conflict, which constituted the premise of this study, is supported.

The present study developed and tested a framework to capture the nature of household conflict and conflict resolution. Husband and wife interaction as the result of household conflict causes family members to consider information and decision criteria that they may not have considered individually. The process of how husbands and wives make decisions is related to the strategies a household uses to resolve conflict. The research described here suggests that the role of cognitive processes of husbands and wives in household decision making remains to be understood.

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Consumer Socialization Associated with Relocation to a New Community: A Framework and Pilot Study

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ABSTRACT

Studies of consumer socialization have emphasized socialization of children and adolescents. However, people experience socialization throughout adulthood. This paper develops a framework for studying consumer socialization associated with geographic relocation and reports a pilot study of consumers who moved to a remote arctic location.

Parallels between organizational and relocation forms of socialization are identified. The study suggests that people who are highly motivated to move will find ways to socialize themselves and cope with the new environment. Two forms of commitment are identified, suggesting alternate forms of identification with the new community. The study also suggests implications for other aspects of adult socialization.

"Since you're a cheechako, you'll need to winterize the car. Get some Sorels and bunny boots at the recycle sale and some Carmex at Foodland. You'll probably be going outside before runoff."

Understanding these sentences represents an outcome of consumer socialization to a particular region of the U.S. Consumer researchers have addressed the way consumers acquire skills and behaviors at various stages in the life cycle. Researchers have explored the way children learn to become effective consumers (e.g., Carlson and Grossbart 1988; Moschis 1985; Moschis and Moore 1979), media influences (e.g., Churchill and Moschis 1979; Ward and Wackman 1971) and the way adolescents are influenced with respect to shoplifting (Cox et al. 1990). However, throughout adulthood, people undergo life changes which alter effectiveness and desirability of previous consumption patterns. For example, people who relocate to a new geographic region also experience consumer socialization. The topic deserves study for at least two reasons. First, a large number of people undergo this experience: approximately 3 % of the US population moves to a new state each year (US Bureau of the Census 1990). Second, insights into adult consumer socialization associated with relocation may have implications for other instances of adult consumer socialization. This paper develops a framework for studying consumer socialization associated with geographic relocation and reports a pilot study of consumers who moved to a remote arctic location.

Fairbanks, Alaska, is a natural laboratory to study adult socialization associated with relocation. It is far enough from the contiguous Lower 48 to preclude quick trips to a previous residence: travel to Seattle takes at least four hours by air, while trips to other parts of the US take at least 10 hours. The culture is distinctly different from other parts of the U.S. with

respect to norms, values, even vocabulary, yet the language and money remain constant. The severe climate and daylight conditions require lifestyle changes even for people from the mountain states. Riesman and Roseborough (1955) note that people often relocate easily by maintaining a "standard package" of goods which can be purchased and used anywhere. However, the physical isolation of Fairbanks means that many products and services are either not available or are very expensive; therefore, people must learn new consumption patterns even when products and brands on the shelves are familiar.

PREVIOUS RESEARCH ON SOCIALIZATION

Socialization can be studied from several perspectives. Psychologists tend to focus on individual learning processes. Anthropologists focus on becoming part of a culture. Sociologists, on the other hand, often view socialization in terms of role acquisition. Thus, much sociological research has taken place within the context of organizations and professions. This form of socialization will be especially relevant to the study here.

Adult Socialization

When compared to research on childhood and adolescent socialization, adult socialization has been relatively neglected. Brim (1966, 1968) identifies a number of differences between childhood adult socialization.

First, Brim suggests that socialization consists of learning the role demands of society. For children, the reference group which prescribes role demands is composed of parents and peers; in contrast, adults refer to "earlier friends, great figures in history, spirits, men yet to be born" (p. 17), or even Mead's (1930) generalized other.

Second, adult socialization necessarily builds on the foundations of childhood socialization. Berger and Luckmann (1966) suggest that this "secondary" socialization occurs on a shallower level. People may experience an inability to take on values and behavior which contradict earlier learning (Brim 1966), also described as "resocialization" (Campbell 1975).

Finally, as people move through the life cycle, "the emphasis in socialization moves from motivation to ability and knowledge, and from a concern with values to a concern with behavior" (Brim 1966, p. 26). Childhood socialization develops primary motives, while adult socialization focuses on secondary motivations. The motivation adults bring to a new environment will influence their socialization because, unlike children, adults select their socialization experiences (Brim 1968).

A great deal of research on adult socialization has focused on career-related socialization. This focus

includes socialization to professional subcultures, such as those associated with medicine, nursing or the military as well as socialization to specific organizations following job changes. Each instance involves adjustment to a community which exists as part of a larger culture. People relate to work settings on a number of levels:

"...from the time individuals first enter a workplace to the time they leave their membership behind, they experience and often commit themselves to a distinct way of life complete with its own rhythms, rewards, relationships, demands and potentials" (Van Maanen and Schein 1979, p. 210).

This type of involvement resembles involvement with a residential community. Theory, models and variables associated with the occupational socialization literature may also have applications in other areas of adult socialization, such as socialization as a service consumer (Goodwin 1988) or socialization associated with relocation discussed here.

Consumer Socialization

Ward (1974) notes that consumer socialization may focus on developing knowledge, skills and attitudes either (a) directly relevant to behaviors associated with the consumer role, such as choice and purchase; or (b) "social motivation" arising from non-consumer roles which influence consumer behaviors. The latter focuses on the content of what is purchased, such as the need to buy a suit for an interview or a warm parka for a cold climate, while the former focuses on how to purchase, such as knowing of brands and consumer rights.

Moschis (1987), summarizing a large body of consumer research, identifies five types of variables as essential to any type of consumer socialization model:

1. age or life cycle position of the influencee;
2. social structural constraints, such as race, ethnic group or class;
3. socialization agent, including (but not limited to) mass media, family, peers;
4. learning processes, which may be behavioral, interactional, or cognitive; and
5. content or criterion behavior, i.e., "cognitions and behaviors...necessary for the performance of a given social role."

Consumer socialization research has focused on norms and orientations of children and adolescents (Moschis and Moore 1984). Therefore, relevance of variables studied in the context of childhood and adolescent socialization must be reexamined in applications of adult socialization. However, the literature on consumer adaptation has not examined adult adaptations to altered consumption environments brought about by geographic location. Variables from adult and consumer socialization literatures will be considered in addressing this topic.

Criterion Variables

While empirical studies of socialization often include a discussion of outcome variables, few writers have considered the question, "What does it mean to be successfully socialized?" Moschis (1987) suggests that, "an individual can be said to be socialized when he or she has learned to think and feel according to society's expectations" (p. 23) or "wise or unwise" decisions (Moschis and Moore 1984). Norms prescribed by contemporary Western society for purchase and use of products include energy conservation, budgeting and comparison shopping.

However, people who adjust successfully to a new community may use a diversity of tactics to achieve a desired consumption level. For example, in the remote community studied here, several people said they had difficulty finding the kind of bread they wanted. Adaptive strategies included learning to bake one's own bread, finding a nearby mail-order source, and searching until a small store was found which carried an acceptable substitute. Similarly, many people resolved their dissatisfaction with local medical and dental services by systematically "going outside" to receive care. Adjustment tactics are idiosyncratic and it may not be possible to identify the best or most correct behaviors.

This ambiguity can be described in terms of the role orientations identified by Van Maanen and Schein (1979). The custodial orientation involves learning customary strategies and prevailing norms associated with job requirements. In contrast, an innovative orientation involves "an effort to locate new knowledge on which to base the organizationally defined role or improved means to perform it" (p. 229).

Moving to a new region requires learning the "local resident" role--in this case, the role of Alaskan resident. A custodial orientation may be possible if one moved to a tightly-knit community where one's neighbors were demographically and psychographically similar. More commonly, individual households will be idiosyncratic in many consumption decisions. Van Maanen and Schein (1979) also note that an innovative role orientation is most likely to result when socialization is one-on-one rather than collective, informal rather than formal, and random rather than sequentially defined. As few if any communities offer group socialization as structured as a company training program, the type of socialization available is likely to result in an innovative role orientation.

Therefore, people can be expected to develop their own consumption heuristics and learning of specific knowledge will not be uniform. Other models of organizational socialization identify outcomes relating to job satisfaction and willingness to remain in the organization, operationalized as self-report measures (Jones 1986). Similarly, successful socialization will be measurable in terms of self-reported feelings of adjustment, satisfaction, and reluctance to move.

Anticipatory Socialization

Consumer researchers have studied the way children learn attitudes and values about adult roles and behavior, such as career and product ownership expectations, as well as how these expectations shape consumer behaviors (Moschis and Moore 1984). More generally, anticipatory socialization allows people to learn about roles they expect to enact in future (Heiss 1981; Thornton and Nardi 1975); for example, graduate schools often allow students to practice role behaviors relevant to their future professions.

When relocating to a new community, anticipatory socialization will often be voluntary: people will read about the new community and seek out information from people they know. A house-hunting trip or packet of information from the employer or Chamber of Commerce may supplement this activity.

Agents of Socialization

Parents, peers and school often serve as socialization agents for children and adolescents. The mass media also socialize consumers to a variety of roles. Within an organization, people have an opportunity to observe fellow workers and supervisors. When relocating to a community, agents of socialization will include neighbors, coworkers, new friends, members of groups--even strangers one encounters in the supermarket. Most communities, including the one studied here, have some equivalent of Welcome Wagon, a merchant-sponsored source of local shopping information.

To a large extent, people moving to a community will have some control over their interactions with others, and even more control over the decision to seek them out for advice and information. Participation in Welcome Wagon is voluntary, requiring newcomers to allocate time to meet with a representative.

Identity

While children learn consumer roles for the first time, adults bring a pre-existing identity to each life event. Because moving to a new community involves learning a new role, this pre-existing identity may be challenged or reinforced. Van Maanen and Schein (1979) contrast the investiture process, which reinforces the previous self, with divestiture, whereby people must give up a previous identity in order to acquire a new one. Divestiture has been discussed extensively in connection with total institutions (Goffman 1961) and training academies (Dornbush 1955). When people feel they have to give up part of their previous identities to join a new community, they can be expected to feel alienated. On the other hand, feelings of self-esteem and self-efficacy, associated with investiture, can facilitate socialization (Jones 1986).

Commitment

By joining a new organization or community, people realize they will be identified with a new label. Commitment has been expressed in terms of identification (cf. Ashforth and Mael 1989) with

organizational goals and values as well as pride in announcing that one belongs to the organization. A widely used commitment scale (Porter et al. 1974) incorporates both of these dimensions.

When moving, people can internalize the values of the community and also enjoy talking about their new citizenship. This identity will be especially salient when people live in places that seem unusually interesting, dangerous or mysterious, such as Hawaii, New York City, or Alaska. Cuba (1987) noted that people often didn't realize how much they identified with Alaska till they found themselves bragging to people they met outside the state.

Motivation

As noted above, socialization of children may involve shaping motivation, while adults tend to learn behaviors corresponding to this existing motivation. Schein (1968) suggests that successful organizational socialization will depend upon an individual's motivation to join; he cites the strong example of the fraternity pledge who is motivated to tolerate a variety of "uncomfortable socialization experiences."

The discussion of specific topics reinforces the importance of motivation, because the person experiencing socialization as part of a relocation controls many aspects of the process. The decision to seek out information, interact with potential agents, and develop innovative approaches to problem-solving will depend on the individual's motivation to adapt to the community.

Consumer Socialization Criteria

This paper suggests that consumer socialization to a new place of residence will be considered successful if the relocated individuals

1. demonstrate knowledge of local brands and products;
2. indicate agreement with prevailing norms and heuristics associated with consumption; and
3. have developed their own mechanisms/heuristics for coping with consumption issues unique to the location.

Propositions

1. Motivation, expressed as voluntariness of the move, will be positively associated with commitment to the place of residence.
2. Commitment to the place of residence will be positively associated with
 - a. anticipatory socialization
 - b. investiture, i.e., reinforcement of previous identity
 - c. seeking out agents of socialization in the new community
 - d. successful socialization, expressed as
 - i) objective knowledge of products and brands and
 - ii) self-reported feelings of satisfaction and adjustment.

EXHIBIT
Occupations of Respondents

Professional	15
Student	24
Technical	12
Managerial	8
Clerical	14
Blue collar	1
Military	12
Other/Missing	15

Results of Pilot Test

A questionnaire was administered to a convenience sample of members of the university community and other residents of Fairbanks, Alaska (n = 94). Respondents (47% male) ranged in age from 18 to 56, with an average of 32.7 years. An occupational distribution is shown in Exhibit 1. Only people who had moved directly to Fairbanks at the age of 18 or older were eligible to complete the form. People who lived here during high school years could not be expected to experience consumer socialization directly, as they would be living with parents. People who first moved to "the bush," remote areas of Alaska, would have developed coping strategies unique to those quasi-wilderness areas.

Cuba (1987) studied adjustment to Anchorage, Alaska, in the 1980's as an instance of adjustment to life on a frontier. She found that many people considered Anchorage to be different from the rest of Alaska, but that people all over the state tended to identify themselves with the state rather than a particular city or part of the state. Therefore this study focuses on Fairbanks but most questions have been phrased in terms of "Alaska" rather than "Fairbanks." As Cuba (1987) observed, it is hard to forget that one is in Alaska: street and business names have Alaskan connotations and Fairbanks still retains the appearance of a frontier town.

Commitment was operationalized as an 8-item scale. Items on this scale are based on those used in the Porter et al. (1978) scale of organizational commitment. Two dimensions emerged from a factor analysis (Table 1). The first, "belonging," represents an internal sense of belonging to the area, the second an impression management aspect of "showing." The "belong" group sought out opportunities for anticipatory socialization and feel at home in the new community. The "show" group displays souvenirs and signs of membership in the community.

The four items which loaded on each commitment factor were summed. Based on median splits of scores from each scale, four categories of respondents were identified: a "booster" group, those who scored high on both scales; a "belong" group, which scored high only on the first dimension; a "show" group which scored high only on the second dimension; and a "reluctant" group which fell below the median on both dimensions. These groups did not differ significantly with respect to age or gender.

Motivation was measured by summing scale items relating to voluntariness of decision to come, Alaska first choice location, looked forward to coming, anticipated an adventure, and expected to hate it (reverse scored). These items loaded on a single factor which accounted for 62% of the variance (Table 2). Booster, belong and show groups were not differentiated, based on a Scheffe test of multiple comparisons; the reluctant and show groups were also not differentiated. Thus, Proposition 1 appears to be supported, suggesting that motivation to come will be associated with commitment.

Anticipatory socialization was measured by two items: "Before moving to Alaska, I read about Alaska" and "avoided learning about Alaska" (reverse-scored). These items were significantly correlated (Pearson $r = .41$, $p < .0001$). While the univariate anova was significant ($F(3,90)=3.82$, $p < .01$), the four groups were not significantly different based on a Scheffe test of multiple comparisons (Table 3).

Investiture and divestiture were measured by seven items. Two scales emerging from a factor analysis (Table 4) represent investiture and divestiture, respectively. Investiture represents positive change which builds on previous strengths, such as "changed in positive ways" and "developed new interests and hobbies." Divestiture, which involves giving up essential aspects of the self, refers to personality changes and "resisted adapting my lifestyle to fit in." The booster group experienced lowest divestiture, significantly different from the others. The booster and belong group were not significantly different with respect to investiture, while the show group did not differ significantly from the reluctant group. Proposition 2b was supported with respect to "belonging" aspects of commitment.

Agents of socialization were identified by asking people to agree with statements about possible sources of information. Table 5 suggests that booster, belong and show categories learned from impersonal sources, such as newspaper ads, TV and Welcome Wagon. These sources require less interaction than other sources identified in pre-tests: learning from old-timers, observing other newcomers, offering advice, and asking friends for information. Interestingly, the "booster" and "show" groups reported learning more from personal sources than the "belong" and "reluctant" groups. Proposition 2c was supported.

TABLE 1
Commitment measures

	BELONG	SHOW
Would like to move away permanently (R).	.88	
Would miss Alaska if I had to leave.	.82	
Consider Alaska "home."	.76	
Would prefer to live elsewhere in winter (R).	.76	
Like to wear casual clothing that says "Alaska."		.82
Have Alaskan souvenirs and/or artifacts in my home.		.81
Find myself talking about Alaska often.		.68
Enjoy showing Alaska to visitors from the Lower 48.		.63

Varimax rotation. Two factors account for 68% of the variance.
Reliability (Cronbach's alpha) = .85 for belong, .74 for show.

TABLE 2
MOTIVATION TO COME TO ALASKA

Looked forward to coming	.87
Alaska was first choice	.81
Anticipated adventure	.78
Expected to hate it (reverse scored)	.74
Came voluntarily	.72

One factor accounts for 62% of the variance.

Motivation	Booster	Belong	Show	Reluctant
	26.2 ^a	25.2 ^a	23.0 ^{a, b}	19.7 ^b

F(3,90) = 9.14, p < .0001.
Cronbach's alpha = .84.

TABLE 3
Anticipatory socialization

Anticipatory socialization	Booster	Belong	Show	Reluctant
	8.2 ^a	7.5 ^a	7.0 ^a	6.5 ^a

TABLE 4
Identity Changes

	INVESTITURE	DIVESTITURE
I've changed in positive ways since moving.	.78	
Old friends say I've changed since I moved to Alaska.	.74	
I've developed new interests and hobbies since moving to Alaska.	.73	
Many local values/attitudes are different from those I was used to.	.63	
I'd have to change my personality to fit in.		.82
I have resisted adapting my lifestyle to be more like Alaskans.		.80
My personality seems right for Alaska.		.69

Varimax rotation. Two factors account for 61% of the variance.

	Booster	Belong	Show	Reluctant
Investiture F(3,90)=6.96, p < .0003 Cronbach's alpha = .70	15.5 ^a	12.9 ^{a,b}	12.2 ^b	11.7 ^b
Divestiture F(3,90) = 14.72, p < .0001 Cronbach's alpha = .64	5.0 ^a	5.4 ^{a,b}	7.3 ^{b,c}	8.8 ^c

TABLE 5
Agents of Socialization

	Personal Sources	Impersonal Sources
Learned from oldtimers	.75	
Observed other newcomers	.70	
Was offered advice	.70	
Asked new friends for information	.57	
Useful info from newspaper ads		.80
Useful info from TV ads		.76
Welcome Wagon useful		.55

Varimax rotation. Two factors account for 52% of the variance.

Reliability (Cronbach's alpha) = .54 personal sources, .58 for impersonal sources.

	Booster	Belong	Show	Reluct
Learned from impersonal sources F (3,89) = 2.73, p < .0489 Cronbach's alpha = .58	6.8 ^a	5.3 ^a	5.5 ^a	4.8 ^b
Learned from personal sources F(3,90) = 7.05, < .003 Cronbach's alpha = .54	16.2 ^a	13.6 ^b	14.8 ^{a,b}	12.8 ^b

TABLE 6
Successful Socialization: Adjustment to Alaska

	HAVE ADJUSTED	RESIST MOVE
Found ways to obtain services I need.	.84	
Can find products I need to live comfortably.	.82	
Feel I have adjusted successfully to life in Fairbanks.	.80	
Learned ways to cope with cost of living.	.80	
Am satisfied with winter clothes.	.67	
Am satisfied with entertainment and culture available in Fairbanks.	.63	
Still feel like a newcomer to Fairbanks (R).		
Plan to move within five years (R).		.84
Plan to move within two years.(R)		.82
Plan to stay here a long time.		.64

Varimax rotation. Two factors account for 62% of the variance.

	Booster	Belong	Show	Reluct
Adjustment F(3,90) = 11.67, p < .0001 Cronbach's alpha = .88	33.4 ^a	29.9 ^{a,b}	28.6 ^{b,c}	25.2 ^c
Resist move F(3,90) = 15.04, p < .0001. Cronbach's alpha = .79.	10.9 ^a	12.0 ^a	7.7 ^b	6.0 ^b

Successful Socialization was measured by self-evaluation of adjustment and likelihood of moving. Table 6 indicates that boosters and belongers indicate greater adjustment than do show and reluctant groups, and they also plan to stay longer. Thus, the "belong" group feels more at home in Alaska and plans to stay. While a causal relationship cannot be inferred from this data, Table 2 suggests that these groups differ in motivation to come to Alaska. Therefore, people who liked Fairbanks and wanted to stay are highly motivated to seek out ways to satisfy their consumption needs. Proposition 2d was supported.

Local brand and product knowledge were assessed by a short vocabulary quiz, with a correct answer scored as 1 and incorrect answers scored as 0. Items were chosen to test respondents' knowledge based on one author's experience in moving to Alaska. During pretests, both newcomers and people who'd lived in Alaska since childhood were asked to suggest additional items. Table 7 indicates that booster and reluctant groups differ significantly with respect to product knowledge, with belong and show groups intermediate in knowledge. The reluctant group also obtained less general knowledge about Alaska than the others.

Agreement with norms and heuristics was evaluated based on a list of items generated by discussion with long-term Alaskans and by soliciting input from earlier pre-tests. Two norms that emerged related to acceptance of used ("recycled") clothing and furniture as well as beliefs relating to availability of

goods in Alaska. Surprisingly, there were no significant differences among the four groups. When only the most extreme groups--boosters and reluctant--were compared with respect to beliefs about availability of goods, the differences were significant (7.5 v. 6.1, p < .04, using a 3-item scale). Thus, while these norms do seem to reflect some correspondence with commitment, people seem to learn them to a similar degree. It is possible that these norms are so widely known that people learn them very quickly after moving to Alaska; a correlation between time in Alaska and the variable representing the sum of the scaled items was not significant.

Summary

In summary, the "show" group appears to be proud of their identity as Alaskans; however, they don't really enjoy living here and resist the cold weather. Their vocal praise of Alaska may reflect cognitive dissonance or a desire to wear the uniform without joining the service. They are more like long-term tourists than residents. The "belong" group have made a new home in Alaska; they were highly motivated to come and genuinely enjoy Alaska without seeking external validation from others. They are actually less familiar with some terms and brands, possibly because they are living the local culture rather than examining it. The pattern of differences among these groups is consistent throughout the socialization variables studied here.

TABLE 7
Product Knowledge

	Product Knowledge		General Knowledge	
	Booster	Belong	Show	Reluct
Product knowledge				
F (3,90) = 4.60, p < .005	9.1 ^a	8.9 ^{a,b}	8.6 ^{a,b}	7.6 ^b
F(3,90)=5.52, p <.002	7.2 ^a	7.1 ^a	6.9 ^{a,b}	5.5 ^b

Limits

Some limitations of this study suggest directions for further research. First, the cross-sectional nature of the study requires reliance on self-report data. A longitudinal study would allow better examination of causal relationships suggested here. Second, this pilot study used rather small numbers and simple data analysis. A larger study is planned, using members from diverse parts of the community, to gain deeper understanding into socialization behaviors.

IMPLICATIONS FOR FUTURE RESEARCH

First, the research could be extended to other parts of the U.S. Stereotypes are associated with many regions of the US--tough Alaskans, laid-back Californians, old-fashioned southerners, and conservative or dull midwesterners. Because Alaska's image is more uniformly positive than many other regions, differences between "show" and "belong" groups may be easier to spot, but these differences will probably exist elsewhere. For instance, a person may enjoy identifying with the "sophisticated New Yorker" or "laid-back California" images yet dislike significant aspects of actually living in those places.

More generally, this study reflects findings from other research on adult socialization (Brim 1966; Campbell 1975; Schein 1968). As noted above, this literature suggests that adults will control much of their own socialization and will build on earlier socialization experiences. Thus, people who wanted to move to Alaska and who proudly accepted the Alaskan identity found ways to adjust and consume effectively. They sought out socialization agents and created their own anticipatory socialization experiences. Motivation may also be important for other forms of adult socialization. For example, various authors have emphasized the importance of socialization to service encounters (Goodwin 1987; Mills and Morris 1986; Solomon et al. 1985). In a given service or retail setting, people who are motivated and who welcome the identity associated with being a customer may be more likely to teach themselves to be effective consumers. For example, in a health club setting, one segment of customers may resemble the "show" group described above: they wear fashionable fitness outfits and enjoy telling others about their exercise program. Another segment

may genuinely enjoy participation in club activities and make a long-term commitment to a program.

Marketing managers can focus on enhancing the perceived value of the service and the attractiveness of identity associated with consumption. Different strategies may be required to motivate each segment.

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Recovering From Drug Addiction: A Phenomenological Account

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ABSTRACT

This paper presents a phenomenological account of recovering from drug addiction through the support of Narcotics Anonymous. Themes such as opening and closing rituals, self-identification as an addict, the credo of identifying, not comparing, maintenance of the boundary 'clean' versus 'dirty' and the development of a surrogate family/community bond are discussed. In addition, the paper interprets the dynamics of group discussion. Recovering From Drug Addiction:

Drug consumption and drug addiction are two of the major social problems confronting consumers (Brister and Brister 1987). Every year thousands of consumers die from drug addiction, and thousands more enter detoxification and/or rehabilitation facilities (U.S. Department of Health and Human Services 1987). Detoxification and rehabilitation programs are designed to help the addicted consumer rid his/her body of the physical dependence on addictive substances. But they cannot live the recovering addict's life for him or for her. The recovering addict must somehow come to grips with the underlying emotional problems, issues, and inadequacies which compelled him/her to *become* an addict (Beattie 1989; Cermak 1986; Johnson 1980).

Many detoxification centers and virtually all rehabilitation facilities encourage their clients to enter a 12-Step program while in treatment and to continue in this program when formal treatment is completed (Johnson 1980; Hazelden Foundation 1985, 1974; Brownell, Marlatt, Lichtenstein and Wilson 1986; Gravitz and Bowden 1985; Wallen, Weiner, Mansi and Deal 1987). Twelve-step programs were originated in 1935 by the founders of Alcoholics Anonymous (A.A.). They are a system of emotional and spiritual recovery designed to help the recovering addict come to grips with the sources of his/her addiction (which generally lie in feelings of personal inadequacy and emotional disconnectedness), to make amends to those whom s/he harmed during addiction, and to provide a lifelong communal support group which accepts the recovering addict on his/her own terms.

There is a spiritual component to the 12-step system, which is derived in part from Christian theology, but, as will be described, this is not necessarily adopted in a theistic or religious sense by members. Currently, there are over 10 national programs derived from the original A.A. 12-step system. Among the most well known of these are: N.A. (Narcotics Anonymous), C.A. (Cocaine Anonymous), G.A. (Gambling Anonymous), S.A. (Smokers Anonymous), O.A. (Overeaters Anonymous) and Al-Anon and Ala-teen, which are designed for the families and children of alcoholics.

I chose to join N.A. because there were several meetings available, it was conveniently located, and there were people there I felt comfortable with. This

paper is based upon my experiences in N.A., both as participant and as an observer. It provides a phenomenological account of how recovering addicts relate to one another -- and to themselves -- within a communal support group.

The two N.A. chapters I attended (and still attend) are different in member composition. They are also different in structure, as well. One is what is termed a Step meeting, which means that each meeting we cover a particular step of the 12-step program. Hence, in 12 weeks, we have cycled through Steps 1 to 12 and are ready to begin again at Step 1. Not everyone in the meeting moves through the steps at that pace, however; in fact few do. Rather, each member moves at his/her own pace; further, some members drop out, and new members are continuously added, so that the group discussion of Step 4, for example, will be somewhat different every time that step is reached. There are usually between 10 and 25 people present at this meeting. The age range is from 17 to 55; it is predominately white and has a mixture of working class to upper middle class attendees. About one-third to one-half the attendees are female.

The other meeting I attend is what is termed a Speaker-Discussion meeting; in it a recovering addict (with at least two months' 'clean time') speaks for 20 to 30 minutes at the beginning of each meeting. This is termed 'sharing.' After s/he has spoken, the meeting is opened for all in attendance to share their thoughts, concerns, and feelings. This meeting usually attracts between fifteen and thirty attendees, approximately one-third are black or Hispanic and about one-fourth are female. The age range is from early twenties to mid-forties and the group is usually evenly divided between working and middle class.

Despite their differences in structure and composition, however, the two types of N.A. meetings exhibit some strong commonalities which are important for understanding how the fellowship functions. Among the most significant of these are (1) the opening and closing rituals, (2) self-identification as an addict, (3) the credo of identifying, not comparing, (4) maintenance of the boundary 'clean' versus 'dirty,' and (5) the development of a surrogate family/community bond. Each of these is described below:

Opening and Closing Rituals

Meetings of N.A. open with the Serenity Prayer¹, which may appear somewhat cliched to the non-addicted reader, but actually has substantial relevance to recovering addicts. Recovering addicts must accept the fact that they are not like other people -- they are compulsive (see O'Guinn, Faber and Krych 1987; O'Guinn and Faber 1989). They cannot change

¹God, grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference.

TABLE 1
Who Is an Addict?

Most of us do not have to think twice about this question. WE KNOW! Our whole life and thinking was centered in drugs in one form or another -- the getting and using and finding ways and means to get more. We lived to use and used to live. Very simply, an addict is a man or woman whose life is controlled by drugs. We are people in the grip of a continuing and progressive illness whose ends are always the same: jails, institutions and death.

TABLE 2
What Is the Narcotics Anonymous Program?

N.A. is a nonprofit Fellowship or society of men and women for whom drugs had become a major problem. We are recovering addicts who meet regularly to help each other stay clean. This is a program of complete abstinence from all drugs. There is only one requirement for membership, the desire to stop using. We suggest that you keep an open mind and give yourself a break. Our program is a set of principles written so simply that we can follow them in our daily lives. The most important thing about them is that they work.

There are no strings attached to N.A. We are not affiliated with any other organizations, we have no initiation fees or dues, no pledges to sign, no promises to make to anyone. We are not connected with any political, religious or law enforcement groups, and are under no surveillance at any time. Anyone may join us, regardless of age, race, sexual identity, creed, religion or lack of religion.

We are not interested in what or how much you used or who your connections were, what you have done in the past, how much or how little you have, but only in what you want to do about your problem and how we can help. The newcomer is the most important person at any meeting, because we can only keep what we have by giving it away. We have learned from our group experience that those that keep coming to our meetings regularly stay clean.

TABLE 3
Why Are We Here?

Before coming to the Fellowship of N.A., we could not manage our own lives. We could not live and enjoy life as other people do. We had to have something different and we thought we had found it in drugs. We placed their use ahead of the welfare of our families, our wives, husbands, and our children. We had to have drugs at all costs. We did many people great harm, but most of all we harmed ourselves. Through our inability to accept personal responsibilities we were actually creating our own problems. We seemed to be incapable of facing life on its own terms.

Most of us realized that in our addiction we were slowly committing suicide, but addiction is such a cunning enemy of life that we had lost the power to do anything about it. Many of us ended up in jail, or sought help through medicine, religion and psychiatry. None of these methods was sufficient for us. Our disease always resurfaced or continued to progress until in desperation we sought help from each other in Narcotics Anonymous.

After coming to N.A. we realized we were sick people. We suffered from a disease from which there is no known cure. It can, however, be arrested at some point and recovery is then possible.

this, but rather must accept it and learn to live their lives within certain boundaries. The most significant of these boundaries is that they must not resume the consumption of potentially addictive substances. Thus, N.A., as well as other 12-step programs, is premised upon *abstinence* from those things over which the consumer is believed to have no ability to control his/her behavior (e.g., drugs and alcohol). The text of the prayer also suggests that the recovering addict is responsible for changing aspects of his/her behavior that would improve the chances of

continued recovery and improved relationships with other people. In large part, this means taking responsibility for one's actions and making amends to those one has injured during addiction.

Following the Serenity Prayer, most groups read "Who is an Addict" [Table One], "What is the N.A. Program" [Table Two], "Why Are We Here?" [Table Three], and "How It Works" [Table Four]. These texts, consistent from one meeting to the next, provide the context within which the group will discuss the issues which are raised. They are very similar in function to

TABLE 4
How It Works

If you want what we have to offer, and are willing to make the effort to get it, then you are ready to take certain steps. These are the principles that made our recovery possible.

1. We admitted that we were powerless over our addiction, that our lives had become unmanageable.
2. We came to believe that a Power greater than ourselves could restore us to sanity.
3. We made a decision to turn our will and our lives over to the care of God as we understood Him.
4. We made a searching and fearless moral inventory of ourselves.
5. We admitted to God, to ourselves, and to another human being the exact nature of our wrongs.
6. We were entirely ready to have God remove all these defects of character.
7. We humbly asked him to remove our shortcomings.
8. We made a list of all persons we had harmed, and became willing to make amends to them all.
9. We made direct amends to such people wherever possible, except when to do so would injure them or others.
10. We continued to take personal inventory and when we were wrong promptly admitted it.
11. We sought through prayer and meditation to improve our conscious contact with God as we understood Him, praying only for knowledge of His will for us and the power to carry that out.
12. Having had a spiritual awakening as a result of these steps, we tried to carry this message to addicts, and to practice these principles in all our affairs.

the liturgy at a Protestant church service, setting forth common articles of faith and providing a ritualized entry into a communal mind-set in which the group will operate.

At the close of each meeting, the group members rise, form a circle, join hands and recite the Lord's Prayer. Although some members are uncomfortable with this practice intellectually and/or religiously (e.g., E.B., *N.A. Way Magazine*, 1990), most accept its textual *propositions*, if not its underlying Christian theology. The central idea is, as in the Serenity Prayer, not to attempt to control events that are beyond the recovering addict's ability; rather, the recovering addict is encouraged to make amends to those s/he may have damaged during addiction (i.e., "forgive us our trespasses"), as well as forgiving those who may have contributed to the addiction in his/her life (i.e., "as we forgive those who trespassed against us"). The textual portions concerning the avoidance of temptation and "deliverance from evil" are also significant to the recovering addict, who confronts a lifetime of resisting the desire to return to addiction.

Self-Identification as an Addict

After the opening texts are read, each attendee is asked to introduce him/herself. This is done on a first-name only basis, to maintain anonymity, and is always followed by the statement: "I am an addict." Whenever an attendee speaks, s/he must preface

his/her remarks by again stating a first name, followed by the declaration "I am an addict."² This public self-identification as an addict is very difficult for newcomers, many of whom are still struggling to come to terms with the stigma of being an addicted consumer. However, the verbal self-labeling *within the N.A. group* serves as a powerful source of achieving commonality and permits recovering addicts to come to grips with the reality of their condition, as well as reminding each one how easily recovery can be lost.

To Identify, Not Compare

One of the principal credos of the N.A. fellowship is to 'identify with other addicts, not to compare.' This is derived in part from a passage in the N.A. program statement: "We are not interested in what or how much you used, what you have done in the past, how much or how little you have, but only in what you want to do about your problem and how we can help" (*Narcotics Anonymous Handbook*, 1988, p. 9). The value expressed by this statement, and reiterated in the credo, is that all addicts share in common the *phenomenological experience of their addiction*. Each addict knows, regardless of what substances s/he used, no matter how long or under

²Or "I am an addict and alcoholic," "I am cross-addicted," etc.

what conditions, irrespective of socioeconomic status, race, age, gender or ethnicity, what it is to be addicted. And it is this existential knowledge that is their common bond. Non-addicts do not, and *cannot*, possess this knowledge, whereas all addicts do. In existential terms, this is the *dasein* of addiction: the *being there*. Addicted consumers, whether in recovery or still active, have all been there.

The credo, to identify not to compare, thus reminds members of the fellowship that their task is to empathize with what other members are sharing with them, and not to assume a critical, judgmental, or evaluative posture. Thus, within the dynamics of group interaction, criticism of what others have said is not permitted. Only supportive or suggestive comments are made. Within the N.A. tradition, it is not deemed appropriate (or functional) for one recovering addicted consumer to judge the thoughts, actions or words of another. It is believed that to do so would inevitably lead to cliques fragmented along drug-of-choice, economic, age, racial or gender lines.³

Clean Versus Dirty

In a phenomenological sense, perhaps the most important dialectic experienced by addicted consumers is clean versus dirty. Recovering addicts are *clean*; they have rid themselves of the substances, behaviors, attitudes and thoughts that contaminated (e.g., Douglas 1966) them during their addictions. Conversely, consumers who are still active in their addictions are viewed within this ideology as *dirty*; as profaned and polluted (e.g., Douglas 1966). In the phenomenological consciousness of the recovering addict, the world is full of potentially polluting contexts and substances that must be guarded against vigilantly. The boundaries of the body, in particular, are to be guarded from the entry of polluting substances; but the mind also is seen as a locus where potentially polluting thoughts and desires (termed 'wrong thinking') may enter and cause relapse.

Body Boundaries. There were several instances provided by the recovering addicts to whom I spoke of attempts to control body boundaries. Two (h, f, 27; w, m, 24) refused to permit novocaine injections during dental surgery, preferring to experience pain rather than "have drugs enter my body." Another recovering alcoholic (w, m, 25) is afraid to rinse his mouth with Scope mouthwash, because it contains 13% alcohol: "I'm just afraid that once that alcohol taste gets in my mouth, I'm a goner... I still have dreams where I wake up tasting bourbon in my mouth." Another recovering alcoholic (w, m, 24) reported refusing to eat some spaghetti sauce his mother had made because she had "poured some beer into it to kill the acid taste... She told me the alcohol was all cooked out, but it didn't matter. The beer was in there, and I wasn't eating it." Similarly, another recovering alcoholic (w, m, 29) became very upset when he learned the cake he had

eaten at a friend's house was flavored with Amaretto liqueur: "I just don't want alcohol to be in my body ever again." A recovering female addict (b, 27) "hates to get a cold, because when I do I won't take sinus medication. It makes me drowsy and reminds me of when I was using [drugs]."

Mental Boundaries. Just as recovering addicts seek to protect their bodies from polluting substances, they may also attempt to prevent polluting thoughts from entering their consciousness. The type of thinking which causes recovering addicted consumers the most concern is re-entry of the belief that they can control their consumption through willpower, as other (non-addicted) consumers do. One recovering heroin addict (w, m, 26) told me he had been having strong urges recently to "pick-up" (i.e., to use drugs). He kept "having fantasies that if I could just get my life where I wanted it -- a nice house, a great car, some money, a beautiful girlfriend -- then it would be o.k. for me to use again, 'cause I could control it." Sadly, he was not able to resist these thoughts and has now returned to heroin addiction. Another young woman (w, 28) has been clean for a year and is now "beginning to have thoughts that I could handle social drinking again. I see everybody else do it, and I think 'I bet I could do that too'; but I couldn't. When I was drinking I hurt myself very badly."

N.A. as Surrogate Family/Community

Consumers' addictions often originate in dysfunctional family life; and virtually all to whom I spoke had damaged or destroyed interpersonal relationships through their addictive behaviors. Thus, when they begin the process of recovery, many find themselves alone and friendless. N.A. provides them with a surrogate family and community which accepts them as they are, and serves as a source of nurturance, guidance, and support. As noted earlier, the opening and closing rituals, the concept of sharing one's thoughts and feelings, the credo of identifying/not comparing, and the establishment of a common bond through the phenomenological consciousness of addiction all serve to create a communal atmosphere within the group. One's sharing of oneself within the group generates a sense of self-transcendence closely akin to the Durkheimian notion of *sacredness* (Durkheim ed. 1961; Belk, Wallendorf and Sherry 1989; Csikszentmihalyi and Rochberg-Halton 1981).

However, the N.A. fellowship reverberates with a more religious form of sacredness, as well. Although explicitly non-denominational, it is fundamentally theistic; its textual materials make several references to a Higher Power, construed by many members to represent God. Some members are uncomfortable with these religious trappings (e.g., E.B., *N.A. Way*, 1990), and choose simply to find solace in the communal aspects of the fellowship, rather than in theism, per se.⁴

³It should be noted that there are some N.A. groups which are all-male or all-female, however, I am aware of none that are segmented along social class or racial lines.

⁴In response to the desire of some recovering addicts to attend non-religious support groups, several agnostic recovery networks are now available.

Theology aside, an N.A. meeting does rely upon Christian church metaphors and practices to help maintain a sense of sanctity for its mission. Meetings open and close with prayers, the meeting place itself is referred to as "these rooms" in metaphorical reference to a sanctuary, contributions are collected in a straw basket reminiscent of offertory practices in Protestant churches, and members in unison recite texts akin to liturgical passages in a worship service. All of this is in keeping with the central ideology underlying N.A., and indeed, all 12-step programs. That is that addicted consumers suffer from emotional and spiritual inadequacies, often springing from incomplete or absent bonding within their families as children.⁵ Their addictions will only be truly cured when these emotional and spiritual inadequacies are remedied. N.A. seeks to do this by providing a family, a community, and a spiritual outlet to which addicted consumers can belong without fear of rejection or abandonment.

Group Dynamics

The dynamics of the N.A. group are perhaps best understood by example. Partial summaries of group discussions for Steps One, Three, Nine, and Twelve are provided below, together with interpretive commentary.

Step One. This step requires addicted consumers to admit that they were powerless over their addictions, that their lives had become unmanageable. Cathy, a pretty, 25 year old, blonde woman is the first to speak. She states that she is "halfway through" this step. Her sponsor has encouraged her to "write it," and she is doing this. Writing down her experiences about drug use has made her realize how miserable her life was when she was using: "I used to do terrible things to myself, and I let other people do terrible things to me..." Now she feels "better about herself" and wants to regain her sense of self-worth and "do healthy things." She was at a wedding reception recently and her brother, who is still an active addict, tried to get her to do some drugs there. This made her feel very uncomfortable. She also had to watch many of her friends and relatives drink alcohol. She left the reception early, because she couldn't bear to be around so many people who were "using;" she was afraid she would give in to temptation. However, she now feels guilty that she left and was not doing the "socially appropriate thing" by staying.

Barbara (w, 40) comments on what Cathy had to say. She tells Cathy that she did a very healthy thing by leaving the reception and should not feel guilty about it. Her "self-preservation must come first," and "it took a lot of courage to leave and not give in to the social pressure" to conform by drinking. Barbara notes that there are many social occasions

where drinking is expected of people -- e.g., weddings, restaurants, cocktail parties -- and that it is made to seem normal, so that people who don't drink are made to feel abnormal. This makes life very difficult for recovering alcoholics. Barbara also states that "any friend who tries to entice a recovering addict to try drugs/drinks is certainly no friend," and Cathy should feel no guilt in refusing them.

Rod (b, 28) shares that he has been clean now for 6 weeks. He has been to N.A. before, but has relapsed each time. He feels much more confident about this attempt to stay clean, because he is now contributing to/and participating in the group. Before when he came to a meeting he would just "sit in the back like a shadow and never share anything... I had lots of good things to share, but I never did. Now, I've learned to speak up."

Another young woman (w, 25) relates how her mother, who was having memory problems, just underwent brain surgery that morning. The woman is very glad she is now sober so that she can deal responsibly with her mother's problems. Now that she is no longer drinking, she is able to feel appropriate emotions. When she was drinking, she was unable to feel -- in fact, she often drank "to escape from having to feel."

A young man (w, 30) has been clean for 16 days. He had been thinking about getting clean for 8 months, and finally entered a detox center. He had a difficult day yesterday. He was moving out of one house (where he had used drugs) to another residence. He had a hard time organizing his thoughts and deciding how to pack and what to take. Then his date for a concert fell through at the last minute. He was unsure if he wanted to go by himself, but he went anyway. A lot of people were drinking beer at the concert, but he was not tempted. He recalled a time a few months earlier when he had returned home from a party about 2 a.m. His roommates were doing lines of cocaine and invited him to have some. He was tired and wanted to sleep, but he did some anyway. By 4 a.m., he "was so wired I felt my heart was going to explode." This scared him and has helped him stay off drugs.

A woman (w, 35) shares that she was a drug abuser for 20 years but kept avoiding acknowledging it. She has been in psychotherapy for 4 years and only now is acknowledging to her therapist that she was an addict. As part of her therapy, he has had her write the story of her drug use in four chronological installments (5 years each). As she has done this, she has "revealed to herself the great extent and depth" of her addiction. Reading this chronicle helps to "keep her honest" about her earlier life on drugs and remain clean.

Michael (w, 50) comments that when he was in rehab, his counselor had him do the same thing. Michael found this very constructive, because when he talked with his counselor he would rely on the term "you know" to cover the undesirable details of his addictive behavior. For example, he would say "I would drink at a party and then... you know." Having to write down the details glossed over by "you know"

Among these are Rational Recovery and the Secular Organization for Sobriety (Gelman 1991).

⁵One knowledgeable reader commented, "Is it just lack of bonding? What about inadequate experience to enable learning of how to give emotional support to another human being?"

forced him to confront the most troubling and repressed aspects of his addiction.

Commentary. The themes surfacing in the group seem to revolve around two of the primary concerns among recovering addicted consumers: (1) maintaining abstinence from addictive substances in the face of their widespread availability, and (2) consciously confronting, acknowledging, and learning to accept the self-destructiveness of their earlier addictive behavior. Recovering addicts are often at risk of giving in to their own impulses and social customs to "use." They may feel self-conscious that they cannot have a drink at a celebratory ritual or social gathering like 'normal' people (often termed "normies"). The social awkwardness and emotional anxiety they experience in such situations often places them in the same frame of phenomenological consciousness they experienced during their addiction. Hence, the fear of relapse is very great -- and very real. Sharing these feelings with people who have had similar experiences helps greatly to restore a sense of commonness and normalcy. The recovering addict is reassured that it is better to 'stay clean,' than to give in to the impulse to fit-in socially by 'using.'

Often recovering addicts, even though aware of their earlier status as active addicts, experience difficulty in fully surfacing the extent and depth of their addictions. This is attributed to the remnants of the *denial* mechanism (e.g., Johnson 1980), which was in force during their active addiction and which, even in recovery, acts to protect them from having to consciously acknowledge the self-destructiveness of their earlier behavior. Many recovering addicts find that *externalizing* the story of their addiction by writing it down and telling it verbally to another person has an extremely cathartic effect.⁶

Step 3. This step states that addicted consumers must make a decision to turn their lives and wills over to God. Doris (b, 30) opens by sharing a story about herself and her cousin, the person who had originally introduced her to drugs (heroin). Her cousin had been in jail for drug-related crimes, during which time Doris had gone into recovery, gotten clean and joined N.A. Her cousin was released from prison last Monday and the first thing she did was call Doris up and ask if she could stay with her. Doris wanted to say no because she feared her cousin's negative impact on her own recovery, but she was afraid her cousin had nowhere else to stay and might end up on the streets. So she said yes.

When her cousin arrived at her house, she was already high on heroin ("noddin"), but Doris let her sleep on her living room couch. Her cousin's presence in the house made Doris nauseous and have diarrhea; she felt "just like I always did when I'd be shooting up the day before, but not have any stuff [heroin] the next day." Doris took this as a sign from her Higher Power that her recovery was at stake and that she must persevere in keeping clean. The next day her cousin left, but Doris is afraid she will return. She wants to tell the cousin no, but is afraid to offend her/not help

her. The next night Doris went to bed at 9:30 p.m., so that if her cousin came to her house, she would already be asleep and would not be tempted to get high. She is struggling with the dilemma of how to be supportive of her cousin and still maintain her own recovery.

Stuart, a handsome blonde young man (25), complains that since he has overcome his addiction he has become much more financially successful (he now makes \$45,000), but that instead of dealing with his emotional problems he "just throws money at them. If I'm having a bad day I can afford to just go see a movie to forget about it, rather than really working it out."

Tracy (w, 20) comments that she is having trouble with Step 3 because she does not believe in God in a religious sense. She does believe there is a power greater than herself ("than the human species"), but not in a traditional religious sense. She likes N.A., however, because she wants to be part of the group. She feels "comfortable and loved" here. Doris agrees that she too does not believe in God as her Higher Power. Her Higher Power is "the N.A. fellowship... the people who are here; that's who I believe in."

Lorie (w, 25) comments that she has just recently learned to understand what the phrase "one day at a time" means. "It means I only let myself worry about what's happening *that day*, not the next day, or next week, or next year. I only live this day and I can only do things that are happening this day... My father is having surgery on Friday and I was very worried about it, but I realized it's only Tuesday. My worrying today is not going to have any effect on what happens to my father on Friday. So I'm going to worry Friday about what is happening to my father on Friday... I used to carry the whole world's burdens on my shoulders, but I've learned to only carry one day's worth now."

Finally, Tim (w, 35) comments that he had a bad run-in with someone that day. A man had come down to the factory and yelled at him about something that was not directly his fault. However, although he had gotten in some "good [verbal] punches" back at the man, he did not lose his own temper. "I realized the guy had had a bad day himself, and he was going to tell somebody about it, so I figured it might as well be me." Tim reports that he is also struggling with co-dependency.⁷ "In my family, I was always the 'Fixer,' whenever something went wrong, I would always try to fix it. I still always try to fix things for my girlfriend... But a lot of times people resent it; they need to do it themselves."

Commentary. The discussion at a step meeting sometimes follows and sometimes digresses from the topic step. Doris and Stuart are using the meeting to

⁷Co-dependency refers to a behavioral syndrome in which one person (the codependent) attempts to control the actions and moods of another person by always seeking to please that person and anticipate his/her demands. Spouses of addicts, battered women, and even traditional housewives may exhibit the codependency syndrome (see Beatty 1989).

⁶These are steps 4 and 5 of the program.

externalize personal concerns and problems, the common subtext of which has to do with self-control and life management. Doris' problem is perhaps the most poignant in that it details vividly the difficulties which recovering addicts from lower SES backgrounds must face in maintaining their recovery. In Doris' social milieu, it is expected that she will provide shelter for her cousin. Yet, her cousin is not only an active addict, but the person who helped initiate Doris' own addiction. Doris' physical discomfort at her cousin's presence -- and her equating of it to her addictive experiences -- demonstrate her emotional upheaval at being placed in such a conflicted situation.

The subtext of Stuart's complaint that he now "just throws money" at his problems surfaces his concern that he is merely substituting a socially acceptable form of compulsive behavior (i.e., spending money) for a negatively sanctioned compulsion, drug addiction. The comments by Lorie and Tim relate more directly to the Step 3 topic, albeit in a somewhat discursive way. Both of these recovering addicts are trying to learn to "just let it go"; that is, to not attempt to exert control over all events/persons/situations that affect their lives. Tim is also still struggling with a tendency to not only attempt to control events in his own life, but also to control the lives of those with whom he has emotional ties. This is termed *co-dependency* (Beatty 1989; Cermak 1986); and is a dysfunctional psychological syndrome found in a segment of addicts -- most commonly those who had to care for (and attempt to control) substance-dependent parents when they were children.

Finally, as the comments by Tracy and Doris indicate, N.A. members do not necessarily subscribe to the Christian theology found in some N.A. materials. Note that both of these recovering addicts place the locus of the sacred aspects of N.A. within the *communality of the group*, rather than in a transcendent deity. Thus the bonding they rely upon resides at an interpersonal, not theistic, level.

Step 9. This step requires that the addict go to those people whom s/he has harmed and make amends to them. Maria (h, 30) begins the discussion by sharing that she has been trying to make amends to her sister from whom she is estranged due to her addiction. Her sister recently came by to see her, and Maria tried to be friendly and make amends, but her sister [in Maria's perception] was very rude and critical. This hurt Maria, but she is glad that she at least tried to make amends. Maria also tells us that her mother is opposed to her getting another job in a restaurant, fearing that it will set off her alcoholism again. Maria reluctantly agrees: "For me to work in a restaurant [where there is a bar] is like putting a junkie in a drug store."

Sarah (b, 23) is a graduate student at an Ivy League university. She feels under "extraordinary pressure" to study and do well. She is unhappy in the town in which she is living [to go to school] and seems to have made few friends. She wants to use drugs again. She began taking caffeine pills to study and work harder, and now finds she "can't stop taking them. I just take them to take them."

Barry (w, 22) says that "all this talk about graduate school has really got me worried... I'm still working on my G.E.D." This gets a big laugh from the group. Barry shares that he recently found a capsule of speed on the ground. He picked it up and smelled it. Fortunately, it no longer smelled like speed, for if it had "I'm afraid I would have taken it."

Jon (w, 24) shares that he has been feeling guilty about something. He was the liaison between two people, and he purposely manipulated the flow of information in such a way to serve his own selfish needs and purposes. "I was very manipulative of the situation, and it reminded me of how I acted when I was using [drugs]." He asked his sponsor what to do and the sponsor told him to "give the person you manipulated power back over his own choices." Jon did this and now he feels better.

Natalie (w, 25) is a new mother. She has been having difficulty adjusting to her new responsibilities and restrictions. She shares that her mind "wanders a lot" during the day when she is home alone with the baby. She feels she is not receiving enough appreciation from the baby and her husband, both of whom are at the meeting. The baby requires constant care and she is always anxious that something could go wrong: "In just one minute my baby could drown." She also feels that people [i.e., her husband] do not respect her opinion on things. "They just ask me hoping that I will agree with what they already think. If I don't, they disregard what I say or dispute it."

Ken (w, 25) shares that he is now at a new job. The past week he has been in the training program, but he is "somewhat paranoid" about the training instructor. He believes that the instructor may have found out that he is a former drug addict from his medical forms. "When the guy put on a training film about 'Don't Do Drugs,' he looked right at me... I know he knows I used to be an addict..." Ken says that "all my life most people haven't liked me... The only person that likes me now is my daughter [18 months old]; she's really happy when I go and see her, unless I am gone too long. Then she acts like she doesn't know me..."

Doris (b, 30) shares that her confidence is growing in her ability to advise other friends who are still on drugs, but that she still suffers from self-doubt. "I say to myself, who am I to tell this person how to live their life... I've only got 8 months clean time... But then I say, well, I am in recovery and I am working the program, so maybe I can help."

Commentary. The discussion by the group focuses upon two kinds of amends -- amends to others and amends to oneself. Maria and Jon are both struggling with re-establishing ties to other people. Maria still seems to need to see herself as the victim ("my sister was very rude"), even though she had originally estranged her sister through her addiction. Jon, conversely, fears that his old, manipulative behavior patterns may be resurfacing in his recovery. At a deeper level, he may also fear that this signals the possible return of his active addiction, as well. He is anxious to 'set things right,' again.

Maria, Sarah, and Barry are sharing with the group their anxieties about the ease with which they

could return to active addiction. For Maria, this would be signalled by her accepting another job as a restaurant manager. Sarah, who was on amphetamines as an active addict, has already compromised her recovery by consuming caffeine pills, another central nervous system stimulant. Barry's chance encounter with a discarded speed capsule has brought him right to the edge of resuming his addiction. He was "saved" by their lack of the distinctive scent, which served as an olfactory trigger for Barry.

Natalie and Ken are both facing common challenges imposed by the real world on recovering addicts. Natalie must learn to face the often overwhelming and thankless tasks of being a new mother. Now she is responsible not only for her own recovery, but for the well-being of her child, as well. Doubtless, this puts great pressure on her to return to her addiction. Ken fears being found out as a former addict. Now beginning a new career, he is fearful that his past may reach forward and destroy his chance of a normal life. Doris displays the ambivalent mixture of self-doubt and self-confidence that is found in many recovering addicts. She vacillates between feeling she is not even able to care for herself and feeling comfortable with assisting other addicted consumers to begin their own recoveries.

Step 12. The 12th Step deals with spreading word of the N.A. program to 'still-suffering addicts.' Doris (b, 30) opens the discussion by saying that although she is "nowhere near the 12th Step" in her personal program, she has already helped a few other addicts to obtain help by advising them and helping place them in appropriate rehab and detox facilities. This has "helped me feel good about myself." She repeats the N.A. adage: "We can only keep what we have by giving it away to others."

Next, Barbara (w, 40) shares her concern over a close female friend who is a binge drinker and drug user. This friend knows Barbara is in N.A. and has talked to her about addiction. Barbara has advised her to stop using alcohol and drugs completely, since the friend seems to be unable to use either (especially alcohol) in moderation. The friend told Barbara that she has been able to greatly curtail her drinking. However, last month Barbara learned that the friend is again binge drinking, experiencing blackouts, and driving while intoxicated. She is very concerned and conflicted over what to do for her friend. She does not know whether she should call and pressure the friend to begin attending N.A. meetings. She fears for the friend's safety and believes that the friend also might kill/injure someone else.

A newly recovered addict (w, m, 30) advises Barbara to help her friend as much as possible. He says at least four of his friends, plus his mother, had to "keep after him" for six months before he finally went into rehab. He had to be convinced by others that his drinking was abnormal, before he could recognize it himself. He is "very thankful his friends cared enough" about him to keep telling him he needed help; otherwise he believes he would have simply kept denying it to himself and making excuses to not change his behavior. A second man (w, 30) gives just the opposite advice. He fears that any attempt by

himself to help a still-active addict might threaten his own recovery. "I've only got enough strength to keep one life preserver afloat and that's mine. I don't want anyone else dragging me down."

A young woman (w, 28) advises Barbara that her friend may resent and resist her efforts to help. This young woman was arrested three times for DWI; each time she would tell the judge that she wasn't an alcoholic, but was only going through a particular crisis which had 'forced' her to drink: e.g., her parents divorced, she broke up with her boyfriend. Finally, on the third drunk driving arrest she was ordered into rehab. Once there, she realized that she was an alcoholic -- that she responded to virtually any problem by drinking. She advises Barbara that the friend must not only need to recover from addiction, but must also *want* to recover from addiction. Until the friend wants to help herself, Barbara's help will be rejected.

Tracy (w, 20) advises Barbara that it might be constructive not to force her friend to label herself as an addict; Tracy had felt "too weak and vulnerable" earlier to carry such a heavy label.

A final piece of advice comes from Jon (w, 28). He agrees that addicts must want to get better, but notes that they often need a great deal of support to be able to recognize their own addiction. They also can greatly benefit from suggestions as to what treatment alternatives are available and how they can get access to them (e.g., N.A. meetings). He, in essence, advocates what Doris has already been doing, i.e., helping to guide people into appropriate treatments.

Commentary. Perhaps one of the most significant acts a recovering addict can engage in is to assist a still-active addict into recovery. Besides being a socially beneficial behavior, these acts also help to reconfirm in the recovering addict his/her own decision to leave active addiction and lead a clean life. Every act of helping another addict, therefore, becomes a reaffirmation of one's own choice for recovery.

Recovering addicts are, in a phenomenological sense, perhaps the best equipped of the people an active addict comes into contact with to communicate the need for and possibility of recovery from addiction. The advice of friends and family may be dismissed by the active addict as irrelevant, because these people are seen as unknowledgeable about the experience of addiction and, in some cases, may even be viewed by the addicted consumer as causes of his/her addiction. Similarly, the warnings provided by medical and law enforcement personnel may be seen by the addicted consumer as infringements on his/her freedom to choose. Some addicts may see these persons as representing political values contrary to their own and, therefore, purposely attempt to counteract these efforts to curtail their addictive behavior.

However, it is much more difficult for an active addict to dismiss as naive, ignorant or misplaced the concern of the former addict. Phenomenologically, the recovering addict *has been* where the active addict now *is*, and chose to leave it. This simple phenomenological fact can be the most convincing

piece of evidence to active addicts that they should and can achieve recovery.

CONCLUSIONS

Recovering from addiction, like becoming an addict, is a process that involves a series of personal choices made over an extended period of time. In many ways recovery is like a voyage of discovery that seeks to reintegrate a self that has been in various stages of disintegration -- often for many years. The value of the fellowship of N.A., and other support groups like it, is that it provides both a haven and a testing ground for the reintegrating self. Often upon seeing the anxiety and uncertainty of newcomers to the group one is reminded of oneself earlier in recovery. Often upon hearing some particularly insightful words from an oldtimer one is inspired to keep going forward with one's life -- one day at a time.

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Helping the Homeless: A Radical Consumer Behavior-Oriented Solution

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ABSTRACT

The purpose of this paper is to discuss a growing segment of the new homeless population in the United States using a consumer behavior approach. First, historical perspectives of the homeless are provided to establish the rationale for traditional thinking regarding this portion of society. Second, recent consumer research involving homeless persons is discussed in order to reorient our thinking regarding the homeless. Finally, a radical solution to solve part of the homelessness problem is provided based upon this revised understanding.

INTRODUCTION

The problem of homelessness has become one of the most urgent social and political issues of our time (King et al. 1989). Current estimates of the number of homeless persons on any given night range from 600,000 to 3 million (Whitman 1989). However, an additional 4 million to 14 million "nearly homeless" American families are living in crowded apartments with friends or family. The American Affordable Housing Institute projects that even a mild recession will disturb this precarious balance and cause homelessness in this country to double or triple overnight (Rich 1989).

Such a portrait is quite different from recent time periods. From the post-depression era to the 1970s, American homelessness declined dramatically (Rich 1989). Skid row areas reduced in size, number, and population, becoming the residence of mostly single, alcoholic, adult men. However, a number of factors, including sharp cutbacks by the Reagan administration in subsidies for construction of low-income rental housing, created a new, more diverse homeless population that is quite different from the past (Brown and Krivo 1989; Koegel, Farr, and Burnam 1986).

The purpose of this paper is to discuss a growing segment of this new homeless population using a consumer behavior approach. First, historical perspectives of the homeless are provided to establish the rationale for traditional thinking regarding this portion of society. Second, recent consumer research involving homeless persons is discussed in order to reorient our thinking regarding the homeless. Finally, a radical solution to solve part of the homelessness problem is provided based upon this revised understanding.

HISTORICAL PERSPECTIVES OF THE HOMELESS

In a recent literature review, Blau (1988) provides an excellent historical analysis of the ideology of the causes of homelessness in the United States over the last hundred years. In chronological order, six distinct categories of literature are identified: 1) Social Darwinism and the homeless, 2) Progressivism, 3) the on-the-road genre, 4) studies of homelessness during the Depression, 5) functionalist

sociological research, and 6) current perspectives of the homeless.

Social Darwinism and the homeless became popular in the last quarter of the nineteenth century in the wake of the 1873-1875 depression which left three million people unemployed. This ideology suggests that charity to the homeless was generally "indiscriminant almsgiving" and personal weaknesses, such as alcoholism, were the main causes of homelessness. For example, Wayland (1877), speaking at the 1877 Conference of State Charities, referred to able-bodied persons without homes as "tramps" and equated them with professional thieves. He recommended that tramps be provided only with the bare necessities, be segregated by sex to avoid their propagation, and be compelled to perform "useful" work. During this time period, even the ignominious funerals of these "paupers" came to signify their exclusion from the remainder of society, and marked them as failures (Laquer 1983).

Progressivism is a kind of Reform Darwinism based on a more compassionate view of the homeless (Goldman 1952). Anderson (1923), who was homeless for a period of time as well as a graduate student in sociology at the University of Chicago, viewed the homeless as individualistic and egocentric, as modern Ishmaels who resist social discipline and conventional social life. In a nonjudgmental fashion, he states that the reasons for homelessness include: 1) unemployment, 2) physical handicaps, 3) personality defects, 4) life crises, 5) discrimination, and 6) wanderlust. However, the establishment of labor colonies and work tests (a case work method that judged the homeless harshly) during this period suggests that the progressives were more lenient in their writings than in their recommendations or actions (see Hunter 1904).

The on-the-road genre contains two distinct groups: social activists as tramps and tramps as social activists. The former group usually was composed of members of the upper classes in society who went on the road to document the squalid conditions of the homeless (Anderson 1923; Chesterton 1926). While they often raised the public's consciousness, the reforms they advocated were mild at best. On the other hand, tramps as social activists tended to view homelessness as an opportunity for self-discovery and adventure, an almost spiritual experience (Mullin 1925; Jennings 1932). However, this approach provides little in the way of understanding of the possible causes of homelessness.

Depression era studies were a response to the tremendous economic and social consequences of the Depression which left millions of people out of work and homeless. Such studies posited two interrelated theories of homelessness: the economic theory and the demographic theory (Sutherland and Locke 1936). The economic theory is concerned with business failures, reduced wealth and incomes, and unemployment. The demographic theory attempts to

explain why, given these conditions, some individuals continued to work, have shelter, or accepted relief while others became homeless. While no blame is implied in these distinctions, value judgments based on traditional conservative thinking still were widespread among the public, resulting in typical negative stereotypes of the homeless.

In the late 1950s, the homeless became an area of research interest among functionalist sociologists. A positivist approach, functionalist sociology assumes a homeostatic social system, and the homeless aroused interest since they managed to survive outside of its boundaries. Merton (1957) suggests that the homeless adapt to the social environment through "retreatism", a condition where an individual is barred from success within society and subsequently retreats to drugs, psychosis, or skid row. Interestingly, the homeless often were viewed as a threat by functionalist sociologists precisely because they withdraw from society (Bahr and Caplow 1973). Their fear is that if a group can exist outside of the social system, the system itself may be in jeopardy.

The growth of homelessness in absolute size as well as visibility in the 1980s gave rise to a proliferation of reports on the homeless. This material can be categorized loosely as falling into two groups: original advocacy research and government-sponsored reports. Advocacy research often mixes moral witness and education in an attempt to change the stereotypical view of the homeless as weak-willed and at fault for their condition (Katz 1989; Ropers 1988). To accomplish this goal, it explores the structural factors in society that lead to homelessness, and describes the homeless as the "human waste of a disposable society" (see Hombs and Snyder 1983; Hopper and Hamberg 1985). Government reports take a different approach and tend to treat homelessness as a housing issue leading to a host of other social problems. Despite their diverse political purposes, most of these reports cite unemployment, deinstitutionalization, drug addiction, and the scarcity of low-cost housing as the primary causes of homelessness (National Mental Health Association 1988).

One major problem across these perspectives is the view of the homeless as helpless and unable to cope with personal or environmental circumstances. While recent research suggests that certain subpopulations such as the elderly, children, and the severely physically or emotionally ill may be unable to survive on the streets (see Hill 1991), other investigations identify a large and potentially growing segment that has developed quite extensive survival strategies. It is this group that we address in this paper.

THE HIDDEN HOMELESS AS SECONDARY CONSUMERS

In a recent *JCR* article, Hill and Stamey (1990) describe their ethnographic experience with the "hidden homeless," a subpopulation of homeless persons who choose to live on the streets, often beyond public scrutiny, rather than in shelters or public places such as subway stations (see *New York*

Times 1991 for an excellent example of this lifestyle). They collected data in a wide variety of settings including abandoned buildings, bridge abutments and tunnels, shantytowns, public parks, and automobiles used primarily for shelter. During this study, Hill and Stamey (1990) examined how possessions were acquired by looking at nontraditional employment strategies, scavenging activities (e.g., rummaging through public garbage containers), and why some products were purchased while others were scavenged. Further, they looked at the types of possessions consumed, and examined the approaches used by the homeless to obtain food, clothing, shelter, and personal hygiene/health care products as well as tools that were used to facilitate search, acquisition, storage, and consumption of these products. Finally, they considered how community among the homeless impacted consumption and its importance to protection of self and possessions, sharing of limited resources, and social interaction.

Three significant interpretive themes emerged from this research. In the first theme, the hidden homeless were portrayed as a "nomadic society," characterized by a reliance upon "nature" to provide the necessities of life, mobility to cover an area wide enough to provide sufficient quantities of needed items, and flexibility to adjust to changing opportunities as they are revealed within the environment (see Chris Drake 1990 for an additional source). The second theme centered around self-concept development by the hidden homeless. According to Hill and Stamey (1990), this segment of homeless persons is able to maintain some self-esteem by distancing themselves from the more dependent categories of their peers (e.g., "shelter dwellers"), and by living independently of welfare institutions. Finally, the third theme compared the meaning of possessions to the hidden homeless with middle-class Americans. The authors found that these homeless persons, when compared to average citizens, held different perceptions/lower expectations regarding what constitutes acceptable housing, and developed a sense of pride from the construction rather than purchase of their home (see Belk, Wallendorf, and Sherry 1989 and Wren 1991 for additional findings that parallel this interpretation).

One implicit theme that permeates these results is that the hidden homeless are a resourceful, determined, and capable group that proactively deals with the lack of available resources in their consumer environment. They often differentiate themselves from shelter users and feel that such facilities are used by the most destitute or the insane. Thus, this segment of the homeless tends to view themselves as surviving by their own wits and abilities.

SOCIAL AND PUBLIC POLICY IMPLICATIONS

The research by Hill and Stamey (1990) provides a sharp contrast with the work of Lewis (1966) by suggesting that many homeless persons take an active role in determining their life choices. However, this perspective of the homeless should not suggest that they are without need. Many go hungry

frequently and find themselves without shelter on a regular basis. Further, the most needy - for example, the mentally ill and the physically disabled - are the least likely to devise and employ the survival strategies described. Nevertheless, this study suggests that, as a society, we need to find methods of support that allow the homeless to maintain their dignity and independence (see Fabricant 1988).

One suggestion is to provide ways to help the homeless avoid the spiral down the housing chain from "housed" to "homeless." In order to halt this process, affordable housing should be made available in the communities where homelessness is most likely to occur so that people can escape this inevitable decline. The research of Hill and Stamey (1990) suggests that many homeless persons expect and require less in a shelter than the typical consumer. Nonetheless, the provision of basic shelter that provides a warm, safe, sanitary, and somewhat private refuge may help the homeless improve the quality of their day-to-day lives by allowing them to refocus their efforts on other important needs. The development of a "homeless village" with a first aid clinic, police mini-station, kitchen facilities, learning and training centers for youth and adults, shelter, and heated lean-tos for those unwilling to live inside has been proposed for the city of Philadelphia (Donald Drake 1990). Such a complex could be placed in resurrected abandoned buildings in the hearts of most cities, and could help the homeless cope with special problems that arise for families or the chronically ill.

Additionally, attempts by governmental agencies to encourage the homeless to accept "mainstream" employment opportunities generally have resulted in failure. One such program, Project Worth in Louisville, Kentucky, found that only five percent of the homeless who entered a special training program were employed one year after schooling (Kilborn 1990). Therefore, instead of seeking to change the patterns of behavior of the homeless, governmental authorities should actively encourage current alternative work such as the recycling performed by the subpopulation discussed by Hill and Stamey (1990). This form of nontraditional employment provides the homeless with a sense of independence and the city/town/suburb with a natural mechanism for dealing with their enduring problems with garbage. To facilitate such endeavors, the authorities should consider subsidizing redemption centers, providing convenient public buildings for the homeless to use as redemption sites, and equipping the homeless with the tools necessary to effectively scavenge.

Of course, such a program is not without problems. The vision of an army of homeless persons rummaging through public garbage containers would frighten most citizens (see Ablow 1991 for an example of fear of the homeless). However, procedures for successful and legitimate search could be established that limit such activities while still providing an opportunity to earn money. An alternative to recycling that may avoid some of these problems but also allow them to maintain their

independent lifestyle is the sale of the paper *Street News* by homeless persons (Adweek 1990; Donaton 1990). Started in New York City in late 1989, the paper is sold exclusively by homeless persons who are allowed to keep 55 cents per copy. In the first four months of operation, the newspaper's sales force grew from 125 to more than 1000 homeless men and women, and plans have been made to expand operations into 15 additional cities including Washington, D.C., San Francisco, Philadelphia, and Newark, NJ.

The provision of food and water requires different strategies. Such goods need to be made available on a regular basis if the homeless are to survive and continue to function in an independent capacity. The efforts of the government with food giveaway programs and soup kitchens are currently insufficient. Adequate supplies are rarely available in times of peak demand, and the variety or quality of these rations generally is poor. Thus, alternative methods of supply need to be considered.

One possible solution is to encourage private businesses to dispense excess foodstuffs to the homeless on a continuous basis. Many restaurants, bakeries, and grocery stores already engage in such activities. However, retailers may be concerned that the homeless will "invade" their establishments in search of food, and consequently frighten their patrons. One way around this problem is to have one or more central locations within a community where retailers can drop off food and the homeless can come to receive provisions. Second Harvest, which collects foodstuffs from manufacturers and grocers, distributes \$700 million worth of food annually through such a program (Schlossberg 1989). Local governments can enhance this distribution process by providing public buildings for storage and dissemination, and tax incentives to donating firms.

Obviously, not all of the homeless will be able to take advantage of these opportunities. As mentioned earlier, due to physical and/or mental illness as well as problems associated with substance abuse, some persons may require greater attention. Unfortunately, the current system of support through the municipal shelters and local mental and physical health clinics is inadequate. Many homeless persons would rather risk freezing to death on the streets than stay in the shelters. Further, many make use of community health facilities as a last resort rather than as a means to maintain or improve their functioning. Thus, more humane facilities that treat the homeless with dignity, reduce the "red tape" associated with utilization, safeguard cherished possessions, and facilitate physical and mental health through quality care are needed.

There are no easy solutions to the problems of the homeless. Clearly, more resources are needed. However, a more important change that may be necessary is perceptual (Gibbs 1990). Unless lawmakers as well as private citizens believe that all members of our society have the right to clean, safe, and sanitary shelter, nutritious and palatable food, and consistent and high quality health care provided in a dignified environment that allows for independent

living, the outlook for significant reform is doubtful (see Pear 1991 for a pessimistic look at the treatment of the homeless by public officials under a 1987 law designed to provide additional housing options).

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Marketplace Estrangement and Consumer Theft

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In 1954, sociologist Gregory Stone showed that not all consumers' store patronage behavior was determined by utilitarian motives like price and convenience. Instead, he found that many consumers felt a sense of allegiance or kinship with stores owned by people from their own community and would patronize these stores out of ethical or social motives. In the 35 years since Stone's study, however, large corporate chains have increasingly displaced or acquired local family-owned stores: first in major cities, and more recently in small communities. Further, almost all of these mammoth retailers have eschewed the traditional personal contact between buyer and seller in favor of high volume, self-service operation.

During the same span of time, another change has occurred. The incidence of consumer theft and fraud from retailers has grown tremendously. Shoplifting alone has grown at twice the rate of consumer purchases and now results in retail losses of \$12 billion per year. Fully 60% of consumers now report that they have shoplifted.

This paper explores the possibility that these two trends are connected. We argue that the epidemic of consumer theft is not solely a security issue, but may reflect fundamental changes in the way consumers view the marketplace. We will examine sociological research showing a widespread tolerance toward crime against "socially distant" or abstract victims, particularly large corporations. We will also explore the relationship between some traditional marketing constructs (such as store "personality" and "loyalty") and consumer theft. Finally, the paper discusses how retailers might stem the tide of consumer theft - not by bolting down the merchandise, but by re-examining the way in which they interact with consumers and communities.

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Consumer Behavior in Coping Strategies for Divorce

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When considering the affect divorce might have on consumer behavior, scholars find themselves in surprisingly ill-charted territory. With notable exceptions in the "revised" family life cycle literature (Gilly and Enis 1982; Murphy and Staples 1979; Venkatesh 1980) our understanding of consumer behavior is almost entirely based on the intact family, with divorce being only observed as a variation from the norm. In fact, more than thirty percent of first marriages are affected by divorce (Berman and Turk 1981; Trafford 1982; Weiss 1975). The gap in understanding divorce and its impacts on consumer behavior is therefore something that demands more investigation (McAlexander 1991).

In an in-depth qualitative study of divorce and consumer behavior it is observed that divorce and consumer behaviors are interrelated in many important ways. This presentation explores one facet of that interrelationship, namely, how consumer behaviors appear to be used to assist in coping with the stresses of the divorce transition.

CONSUMING AS COPING

Recent work studying how consumer behaviors function as coping mechanisms during role transitions have offered some interesting early glimpses of the phenomenon. For example, McAlexander and Schouten (1989) identified how consumers maintain and manipulate personal appearance to assist them in coping with difficult life transitions. Roberts (1991) noted in a study involving laid off steel workers that consumption often played a major role in their adjustment to unemployment. Hill and Stamey (1990), in their examination of homeless consumers detail a number of consumer behaviors that assist the homeless in coping with the day-to-day struggle of living in a socially marginal and frequently perilous state.

In the present study, data analysis identifies a number of different ways in which consumer behaviors are integrated into strategies for coping with the stresses that accompany divorce. These strategies were identified as: personal stability zones, situational grouping, anticipatory socialization, and identity experimentation.

Anticipatory socialization is a strategy that allows a person to gradually bridge a discontinuity in advance to and in preparation for the full assumption of a new role. In our sample, examples of the use of anticipatory socialization as a coping strategy include a lawyer, who, while studying for the bar exam, spent extra energy investigating divorce law. Another example was provided by a husband who persistently pushed his wife to enroll in school. He was easing his unannounced departure by surreptitiously preparing her to become a self-supporting single parent.

A *personal stability zone* can be thought of as a familiar reference point in a time of stress (Hopson

and Adams 1976). For individuals involved in difficult transitions, personal stability zones include preserved vestiges of prior roles that are familiar and comfortable. Informants in our study used possessions like old furniture and photographs to connect them to a familiar point in their past. These possessions evoked feelings of connection to their former life structures and engendered a sense of continuity in their lives.

Situational grouping involves seeking mutual support among other people experiencing the same type of transition (Hopson and Adams 1976). For example, some informants in our study joined formal organizations like Parents Without Partners. Membership in such organizations provides opportunities for the divorced to meet and gain emotional support from people experiencing similar situations. In addition, informants found informal support groups within adult student associations, singles bars and their places of employment.

In divorce people sometimes experience a remarkable sense of freedom to experiment with personae and activities formerly unavailable to them within the structures and confines of their marriages. Through *identity experimentation* they try on and test possible selves (Markus and Nurius 1986) that may prove useful in the reconstruction of post-marriage identities. Such experimentation acts as a coping mechanism to the extent that it satisfies a need to consolidate an ambiguous or emergent identity and create a new, meaningful life structure. This appears to be especially important for informants who felt oppressed or overshadowed by their former spouses. Certain experimental behaviors also function in playlike fashion as an emotional release. Among the goods and services incorporated into the identity experimentation of our informants were illicit drugs, vacations, recreational equipment, new clothing and hairstyles, new automobiles, and new social activities.

CONCLUSION

Consumer behaviors play an important part in the divorce transition. Since neither the consumer behavior literature nor the divorce literature affords much insight into this topic, the interrelationship between divorce and consumer behavior would seem to be a fertile area for further research. For example, future research might explore how the tenor of the divorce affects and is affected by consumer behaviors, how individual roles played by spouses within the divorce affect consumer behavior. Future research might also offer a more processual examination of consumer behaviors through different phases of the divorce transition. Finally, a fuller understanding of consumer behaviors during the divorce transition may provide helpful insights for service providers, such as

lawyers and counselors, who may be interested in easing the divorce transition.

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The Cigarette Advertising Controversy: Assumptions About Consumers, Regulation, and Scientific Debate

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The U.S. cigarette market is surely one of the most thoroughly studied markets in history. The reasons are not hard to find. This market has been blessed with a conveniently short history (mainly since 1914) and copious data on production and sales (thanks to the tax system). A perennially fascinated advertising trade has provided data on advertising and promotion. Persistent market dominance by only six firms (four before the mid-1930s), repeated attention from antitrust authorities, and the prominent use of advertising as a competitive tool have made the cigarette market a natural target for studies of monopoly and competition. Finally, the periodic arrival of staccato bursts of health information, often followed by striking regulatory interventions, have had the effect of creating a series of fascinating natural experiments in oligopolistic competition and regulatory impact.

It is now apparent that the cigarette market has produced yet another natural experiment: the more or less overt adoption by consumer researchers of varied theories of consumer behavior, varied theories of regulation, and possibly, equally varied approaches to the use of scholarship in debate over public policy.

THEORIES OF CONSUMER BEHAVIOR: "SMART" CONSUMERS OR "DUMB"?

The recent literature on cigarette advertising and public policy reflects two distinct views of consumer behavior. One approach, well exemplified in the work of Cohen (1989a and 1989b) and Pollay (1989, 1990), views advertising as a powerful influence that consumers are ill prepared to resist. Let us call this the "dumb consumer" model of consumer behavior. In this model, consumers passively receive advertising messages and - if these messages are persistent and well crafted - passively succumb in large numbers to an almost unconscious impulse to purchase. A complementary role is postulated for public relations, which is seen as overcoming with ease the efforts of physicians and others to warn consumers of the dangers of smoking (Pollay 1990). Much of the potency of advertising and public relations is assumed to arise from fundamental deficiencies in consumer information processing. These deficiencies include short-sightedness or myopia, the discounting of small probabilities, and a reluctance to translate generalized risk information into personal risk. The result (according to this model) is that in the face of cigarette advertising and public relations, consumers systematically and drastically discount the health dangers of smoking, even if they routinely receive accurate health information from sources such as the United States Surgeon General. The dumb consumer model therefore predicts that regulatory interventions such as

mandated health warnings and limitations on advertising will have strong effects on the cigarette market.

We believe that the history of the cigarette market casts doubt on the validity of the dumb consumer model. The cigarette market has undergone a series of regulatory interventions that have focussed specifically on information. These interventions include a prohibition on health-related advertising in 1955, health warnings on cigarette packages in 1965, an end to broadcast advertising in 1970, health warnings in advertisements in 1972, and rotating warnings in 1984. These measures have apparently had little if any effect in reducing cigarette sales (cf. McAuliffe 1988; Calfee and Ringold 1990). The reason for this apparent lack of effects is almost certainly *not* that consumers systematically underestimate or ignore the health effects of smoking. Indeed, what seems likely is that from the very beginnings of the market (cf. *Consumer Reports* 1938 and citations therein) consumers have absorbed health information from many sources including parents, family, peers, physicians, the press, and popular culture ("coffin nails" is an old slang expression for cigarettes). As was pointed out when Congress prohibited broadcast advertising for cigarettes in 1970, there has never been strong evidence that advertising alone has carried significant weight in comparison to these other information sources, at least not when it comes to basic matters such as whether to smoke or how to rate the dangers of smoking (cf. Levitt 1970). Consumers have long since developed a deep appreciation of the potential dangers of smoking (cf. Calfee 1985). Data collected by the federal government's Office on Smoking and Health indicate that consumer awareness of the major health effects associated with smoking are now at extremely high levels, surpassing even governmental goals (Shopland and Brown 1987; U.S. Dept. of Health and Human Services 1990). Other work suggests that present-day smokers over-estimate (rather than under-estimate) the risk of lung cancer from smoking (Viscusi 1990).

Looking beyond the cigarette market to consumer markets generally, the dumb consumer model suggests that all sellers can routinely deceive consumers. The result should be a market-wide tendency toward deception, a tendency that should largely offset the otherwise beneficial nature of competition. This is an extremely powerful argument - too powerful, in fact. To claim that information processing deficiencies leave consumers helpless in the hands of sophisticated marketing is to imply that almost no market can work well, and that consumers will be subject to the whimsy of sellers in any market where advertising is prominent - and without broadcast advertising, cigarettes are well down on the "advertising-is-prominent" scale (cf. *Advertising Age*

1991, showing that in terms of advertising expenditures, the leading cigarette brand, Marlboro, ranks only 48th among all U.S. product brands, below such names as Tylenol, Ultra Slim-Fast, Circuit City, and Wrigley). The "dumb consumer" model therefore postulates a market process that cannot resemble efficiency, a market in which well established, vigorously advertised brands and products, however inferior, are nearly invulnerable to attack by new brands that (were it not for advertising) consumers would prefer to buy. But in fact, and contrary to the predictions of the dumb consumer model, markedly inferior products tend to succumb quickly to new and superior alternatives, as can be seen in markets ranging from automobiles to video games. The ancient aphorism, "nothing kills a bad product quicker than good advertising," would never have arisen from experience with dumb consumers.

In contrast to the "dumb consumer" model is what might be called the "smart consumer" model. This describes a world in which consumers use advertising rather than allow advertising to use them. Consumers instinctively mistrust advertising in the absence of supporting information such as experience with brands or retailers, and consumers must be "sold" before they buy. Thus consumers are simultaneously skeptical of advertising in general, yet willing to use advertising when it provides valuable information (cf. Calfee and Ringold 1988, 1992). Deficiencies in consumer information processing occur not in a vacuum but in a competitive environment. Sellers who find themselves placed at a competitive disadvantage by the oddities of consumer information processing have strong incentives to help consumers overcome their informational deficits. Sellers will be motivated to provide new information and to make it accessible - even if the new information is "negative" information that is likely to work to the disadvantage of the overall product market. This has happened in the cigarette market. During the 1950s, the combination of competitive instincts and new health information brought a wave of "fear advertising" about tar and nicotine and health effects of smoking generally. This advertising, which was spurred by competition and not by public health authorities, certainly scared smokers and probably reduced overall market sales. In the words of *Fortune* magazine, "Never before has an industry spent so much money trying to talk itself out of business. The 'commercials' keep reminding us that tobacco contains tars, resins, and other bronchial abrasives" (*Fortune* 1963; also see Calfee 1985, 1986; McAuliffe 1988; Ringold and Calfee 1990). Although the Federal Trade Commission has severely limited this kind of advertising since 1960, there are reasons to believe that in today's competitive environment, ad claims about tar and nicotine continue to remind smokers of the health dangers of smoking, as was pointed out some years ago by Schelling (1978).

Similar competitive dynamics have operated in connection with many other products, ranging from foods (where health claims about reduced fat and cholesterol have focussed consumer attention on what they do *not* want in foods; see Calfee and Pappalardo

1990 and Ippolito and Mathios 1990) to insurance (where claims about the financial security of certain firms can cause consumers to be alarmed about the safety of all insurance firms; see *New York Times* 1991). Over and over again, competitive forces have led advertising to highlight rather than suppress valuable information, even when that information reflects badly on the product being advertised.

There is a more general point: that consumers have always been vividly aware of sellers' incentives to exploit consumer ignorance, and that both consumers and sellers take these incentives into account when devising their marketplace strategies (Bauer 1958; Wright 1986). Buyers cast a skeptical eye on information from sellers. Sellers know this, and buyers know that sellers know it. So sellers realize they must eventually earn credibility in the marketplace, and lay plans accordingly. These insights can be combined with the large and growing literature on the economics of information, which describes how information courses through markets as a special kind of "product" (Stigler 1961; Nelson 1974; Ford and Calfee 1988 and references therein). The emerging result of these analyses is a vision in which competitive markets tend toward efficiency not only in the classic Adam Smith sense of production, distribution and pricing, but also in terms of information and consumer choices.

We believe that the smart consumer model is extraordinarily robust across cultures and through time. Perhaps what is most surprising is the degree to which this model applies to economies very different from that in the United States. If one looks at societies with amazingly weak consumer protection laws on, say, medicines, one finds that consumers who possess extremely little in the way of education or government information sources nonetheless carefully pick and choose among powerful drugs so as to avoid dangers that far more knowledgeable American consumers supposedly cannot deal with on their own (cf. Peltzman 1987, *Nigerian Hoechst Limited*, and *CIBA-Geigy Pharmaceuticals*). In Russia and Eastern Europe, where consumers have emerged wide-eyed from 40 or even 70 years of ceaseless anti-marketing propaganda, recent surveys show that these consumers are already equipped with attitudes toward markets and incentives that are essentially the same as the attitudes of American consumers (Shiller, Boycko, and Korobov 1991). Experimental studies of bargaining outcomes have also found striking similarities among citizens of nations as diverse as the United States, Israel and Yugoslavia (Roth, et al. 1991). It seems evident that wherever advertising is allowed, "smart" consumers - consumers who understand marketing incentives and use advertising to their own advantage - are the rule rather than the exception.

Thus there are two opposing views of how consumers respond to persuasive communications. The clash between these views is not new. Much the same dispute arose after World War I and its accompanying barrage of political propaganda. The dispute continued for decades, while the focus of debate slowly shifted from purely political advertising to commercial advertising. As described in the masterful

treatments by Bauer (1958, 1963), the depressing specter of hapless consumers victimized by organized persuasion is a vision that has often been described, but has never withstood scrutiny. Steady enhancements in the techniques of mass persuasion have not brought increasing commercial power over consumers, but instead have been met with increased sophistication and skepticism on the part of consumers. The effect is a market in which sellers must scramble to maintain credibility, rather than one in which consumers are simply victimized by whatever advertising claims come their way. These market dynamics should be taken into account when assessing the likely effects of advertising and promotion. Competitive advertising, like other competitive tactics such as price-cutting, can easily result in a stand-off between opponents, with little obvious change in market shares. If competitive dynamics are ignored, it is easy to fall into economic fallacies such as the commonly made argument that large advertising expenditures for individual brands necessarily cause either wholesale brand switching or an increase in total market sales (cf. Tye, Warner and Glantz 1987).

DOES REGULATION WORK? SHOULD WE CARE?

The cigarette market features unusually intense regulation of information (including warnings on labels and in ads, disclosure of tar and nicotine yield, prohibitions on broadcast advertising, and prohibitions on claims about health effects of smoking). Recent policy proposals argue that even stronger regulation (such as a ban on all cigarette advertising) would improve an otherwise defective market. We should therefore examine the topic of regulation itself, and in particular, the question of whether regulatory interventions improve markets. A natural companion to what we have called the "dumb consumer" model of consumer behavior is an optimistic model of regulation - a "dumb consumer/smart regulator" model, one might say. In effect, those who believe that consumers are bamboozled by advertising flim-flam are often prepared to supplant consumer judgments with the judgments of regulators. In making such recommendations, advocates of increased regulation typically treat regulation as if it were simply the rational result of disinterested public service, i.e., a well-crafted tool of enlightened public policy (American Medical Association 1986; Cohen 1989a and 1989b; Waxman 1991). That the result of increased regulation will be a net improvement for consumers is usually taken for granted, and the possibility that regulation will fail to improve the market is often ignored.

A second view of regulation is radically different. Regulation is viewed as the result of a political process, a process that begins with murky goals, meets pressure from numerous interest groups, undergoes intricate compromises, and finally achieves implementation in a form that may be entirely divorced from the original goals (to the extent that coherent goals existed in the first place). It is no wonder that analysts of the regulatory process refer to

the "law of unintended consequences," according to which the unintended costs of regulation outweigh the intended benefits. Hence regulatory failure is assumed to be more likely than regulatory success, unless and until contrary evidence emerges.

In the economic literature, these two approaches correspond roughly to the "public interest" theory of regulation, which assumes that regulation is wise and effective, and the Chicago school of regulation, which posits that the many interests served by regulation do not necessarily include those of the public at large (Stigler 1971). Debate over these opposing visions has given rise to a large empirical literature. This literature provides little support for a presumption that regulation is efficient or beneficial, and much support for the opposite view. In the history of major economic regulation at the federal level, for example, the gap between intentions and effects goes back at least to the renowned Interstate Commerce Act of 1887, which was designed to end the rapacious economic conduct of American railroads. Research has found that the ICC Act increased the stock prices of railroads, a result which strongly suggests that "the railroads welcomed regulation as a means for facilitating the enforcement of cartel-like agreements" (Prager 1989). Consumers were almost certainly losers under the ICC Act. Similar conclusions about more recent events have been reached by numerous studies of almost every major market in which regulation has been important (see Stigler 1975 or almost any issue of the *Journal of Law and Economics*, such as the one containing Coate, Higgins and McChesney 1990).

These remarks on the dubious benefits of regulation apply specifically to the cigarette market. Research has found that such major interventions as the 1960 FTC tar and nicotine ad ban and the 1970 broadcast ad ban strongly limited consumer benefits from informational competition, while often enhancing industry welfare (Hamilton 1972; Warner 1979; Schneider, Benjamin, and Murphy 1981; Calfee 1985, 1986, 1987; Schuster and Powell 1987; Mitchell and Mulherin 1988; Scheraga and Calfee 1991). Even the 1965 law that put warnings on labels has been criticized as worthless or worse (Drew, 1965). On the other hand, empirical documentation of benefits from these and other regulatory initiatives is scarce or nonexistent. It is clear that however one feels about the workings of the cigarette market in its present state, it would be foolish to assume without evidence that the next regulatory advance will improve the welfare of consumers.

PUBLIC ADVOCACY AND SCIENTIFIC DEBATE

Dispute among academics is inevitable whenever the spheres of science and public policy interact. The danger is that disputation will overwhelm science, to the detriment of scholars and consumers alike. Two problems are paramount. One is the substitution of *ad hominem* attack for reasoned argument - that is, attacks on scholars themselves (or on their ideology or their funding sources) rather than on the coherence of their arguments. The second

problem is the distortion of science itself. This more complex and more serious problem involves both misreading of research outcomes to support preconceived conclusions, and unreasoned attack on research for what it concludes rather than for its intellectual substance. These latter difficulties are simply too complex to deal with here, so we will stick with the first problem, which is more or less the personalization of academic debate.

Aside from being a sign of intellectual weakness (else why use this approach?), an *ad hominem* approach in debate about cigarette advertising would interfere with the process of arriving at better ideas and evidence. Three problems emerge. One is that the *ad hominem* approach - such as pointed inquiries into funding sources - will eventually stumble over itself. The process has no logical limit. There is always another suspicious factor to take into account. Large funding sources practically always have agendas, and policy evaluation research is therefore laden with the expectations of the funding source. For example, public agencies that advocate the printing of warnings on product labels surely hope that the research they support will find such labels to be effective. Of course, this expectation does not in itself eliminate the value of such research; rather, one must look at the substance of the research in order to assess its worth. The unfortunate result of ceaseless attention to researchers' motives is that all participants, targeters and targets alike, become distracted from the central issues whose resolution demands our full attention and more.

The second point is less obvious and more insidious. If one feels free to dismiss or discount arguments according to their source, a logical next step is to search for correlations between the content of arguments and the sources from which arguments emerge. Usually, such correlations will be found. Then, why not take a short cut? Why not simply assume that studies which reach certain conclusions are *likely* to have been funded by certain (suspect) sources, and therefore, *likely* to fall into a category that has already been judged as unworthy of attention regardless of content. One can then economize on intellectual effort by ruling out of the debate all research that reaches "incorrect" conclusions. The pernicious consequences of such an approach are too obvious to merit further discussion.

The third point, the simplest by far, is how to avoid the problem. We should all be judged by what we say, not by who we are or who we associate with or even whom we receive money from. Our own views on, say, "dumb" versus "smart" consumers, should be assessed according to the coherence of our argument and the quality of the evidence we have adduced. The same should apply, of course, to the arguments of those who take an opposing view. Unfortunately, there is reason to fear that this ideal state of affairs will cease to exist if and when the stakes in the debate (especially the financial stakes) become very large. Recent dispute over the health effects of exposure to asbestos, for example, suggests that when a product becomes engulfed in multi-billion dollar products

liability settlements, not to mention the prospect of government-mandated cleanup activities that will cost even more, the temptation to judge researchers by criteria other than the quality of their research becomes very great indeed; the courts have actually sought to prohibit certain experts from testifying purely because they participated in a certain academic conference (Stone 1991; *Wall Street Journal* 1991). Much the same thing is happening in connection with research on exposure to lead, where the financial stakes in terms of product liability and clean-up costs are also high (see *Science* 1991). Public debate based purely upon scientific merit remains an indispensable goal.

CONCLUSIONS

Consumer researchers of the cigarette market differ in their views of consumer competence and in their skepticism toward regulation. Much of the dispute resolves into a clash between confidence in regulation and confidence in market competition. This is not merely a matter of ideology, preconceived notions, or sources of funding. Different theories have different predictions. We believe the smart consumer model explains the dynamics of contemporary markets better than the dumb consumer model does. Market competition has proved to be more robust and beneficial - especially in connection with product information - than one might expect from a simple inventory of consumer information processing deficiencies. This is perhaps most striking in connection with information about the potentially adverse health effects of products, information that competitive advertising has repeatedly provided to consumers despite the potential to reduce overall demand for the product. Similarly, the optimistic view of regulation inherent in recommendations for increased regulation does not reflect the actual workings of regulation in either the cigarette market or in markets generally. Competitive advertising has consistently demonstrated its power to enlighten consumers without regard for the welfare of the industry doing the advertising, while regulation has tended to impede improvements in consumer information.

Sometimes, differences over science expand into a politicized attitude toward scientific debate. The result can be to judge research by its conclusions or by its source rather than by its quality. This is a self-defeating process that retards movement toward better understanding of both consumer behavior and the dynamics of the marketplace. The solution (not an easy one when vast amounts of money are involved) is to hold fast to the traditional academic focus on coherency of argument and quality of evidence.

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Role of Affect and Need for Interaction in On-Site Service Encounters

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ABSTRACT

With the growing availability of computerized service delivery systems in on-site service encounters, customers are increasingly able to perform services for themselves. The issues for practitioners are whether customers will view such options favorably and what would determine their attitudes. A causal model drawing on information processing research and services literature is developed to address these issues. The model is tested and the data are analyzed using LISREL 7. A moderating effect of prior behavior is also hypothesized and is tested using a nested MANOVA and regression analysis. The findings support the hypothesized effects, contributing to theory development and providing implications for practitioners.

INTRODUCTION

In recent years there has been much innovation in service delivery and many service firms today offer customers the option to perform a service for themselves with the use of a machine. These options include services customers can perform for themselves from their homes, using a computer and/or telephone (e.g., home shopping or banking), as well as services they can perform for themselves on site, using a computerized service delivery system.

An early example of an on-site computerized service delivery system is the automated teller machine. Recent applications include computers in stores which customers can use to place their orders directly, ticketing machines at airports, closed-circuit check-out in hotel rooms, and touch screens for ordering in fast food restaurants.

A major issue to marketers who consider installing such service designs is whether or not customers would view such options favorably. Clearly, if they did view them favorably, service firms could experience substantial savings in labor costs (*Business Week* 1990; Lovelock and Young 1979).

Another issue is whether customers' familiarity with using similar systems has a bearing on how they view these computerized service delivery options (*The New York Times* 1989). If so, familiarity with computerized products could be used as a base for segmentation in providing such self-service options to specific targets.

A third issue relates to whether customers would be concerned about de-humanizing the service situation (Breakwell et al. 1986; Zeithaml and Gilly 1987). If this is a major concern, then marketers would be well advised to provide full service options alongside the new, computerized, self-service options.

This study investigates these practical issues in a fast food setting where touch screens are currently being tested as direct ordering options for customers (*Marketing News* 1990; *Nation's Restaurant News* 1991). A model is developed by drawing on information processing research and services literature and is tested with a student sample, a particularly

relevant sub-segment for fast food restaurants (*The Wall Street Journal* 1990). The data are analyzed using confirmatory factor analyses, nested MANOVA, and regression, and the results support the hypothesized model. The theoretical contribution of the study is discussed, as are implications for practitioners and for future research.

CONCEPTUAL FRAMEWORK

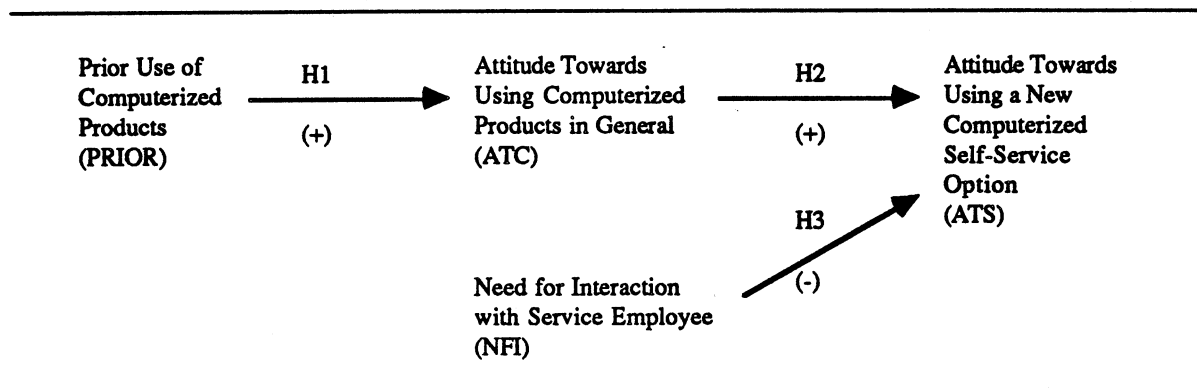
When faced with a new situation, people tend to draw on similar past experiences to make judgments about the new situation. This commonly observed phenomenon can be explained using the information processing paradigm (Johnson and Puto 1987; Bettman and Sujan 1987a), and the concept of category-based affect (Fiske 1982; Fiske and Pavelchak 1986; Sujan 1985).

Based on the information processing paradigm, individuals make and store cognitive representations (Lachman, Lachman, and Butterfield 1979; Johnson and Fornell 1987) about different situations, and also make judgments or overall cognitive evaluations about situations they encounter (Einhorn and Hogarth 1981). On confronting a new situation, they may recall earlier cognitive representations or judgments to evaluate the new situation. This is similar to stimulus generalization, an extension of Pavlov's classical conditioning theory. When an individual perceives a new stimulus, it is compared to similar stimuli in memory and is responded to on that basis.

Fiske (1982) and Sujan (1985) explain that prior behavior is associated with category-based affect. They propose that past behaviors are stored as an affective response and when a stimulus matches expectations, it triggers this category-based affect. The category-based affect is extended to the current behavior without a review of cognitive beliefs about the consequences of the current behavior (Bettman and Sujan 1987b). When the prior behavior is exactly the same as the current one, it can influence intentions or behavior directly; when the behavior is similar only in some respects to the current one, the affective response is likely to be triggered (Fiske 1982; Fiske and Pavelchak 1986; Sujan 1985). The new behavior will be viewed favorably or unfavorably depending on the nature of the category-based affect.

Prior behavior may be defined as the extent to which the individual has engaged in that behavior. For computerized service delivery systems, relevant prior behavior would include the use of products based on similar technologies (computers, ATMs, VCRs, etc.). People are more likely to have engaged in these activities than in using touch screens to order fast food, a relatively new option, with limited availability. Since these activities are similar to, but not the same as, using a touch screen to order fast food, prior behavior related to these activities is expected to influence some type of general category-based affect, such as attitudes towards using computerized products in general. The link between

FIGURE 1
Determinants of Attitude Towards New Computerized Self-Service Options



prior behavior and generalized attitude has been empirically supported as well (Dickerson and Gentry 1983). It is expected that a pre-conceived, positive, category-based attitude, in turn, would cause the individual to view a new, but similar, situation in a favorable way. Hence, the following hypotheses are proposed:

- H1:** Prior behavior with respect to using computerized products will have a positive effect on attitudes towards using computerized products in general.
- H2:** Attitudes towards using computerized products in general will have a positive effect on attitudes towards using a new computerized self-service option.

It would be interesting to consider whether a category-based affect exists towards self-service in general that could also affect attitudes towards using a new computerized self-service option. Although there is some evidence that people have different propensities to participate in service delivery (Langeard et al. 1981), it appears that this is largely situation-related (Lovelock and Young 1979). People may have a positive attitude towards certain forms of self-service such as filling your own gas or banking, but a negative attitude towards self-service in restaurants or home repair.

Researchers in services marketing (Bateson 1985; Langeard et al. 1981; Lovelock and Young 1979; Silpakit and Fisk 1985) have suggested that determinants of customer participation in self-service should be investigated in future research. A construct relevant to self-service versus full-service is the need for interaction. This refers to the need that some individuals feel for interacting with the service employee in a service encounter. Langeard et al. (1981) and Bateson (1985) found that the need for human contact in a service encounter was very important to some customers. Some people feel strongly that the use of machines in a service encounter dehumanizes the interaction (Breakwell et al. 1986). It is possible that these people may have a positive attitude towards using computers in their

homes, but may dislike the idea of using them in a service situation. Hence, it is proposed that:

- H3:** The need for interaction with a service employee will have a negative effect on attitudes towards using a new computerized self-service option.

These three hypotheses H1-H3 form a causal model indicating the antecedents of attitude towards new computerized self-service options. The model is presented in Figure 1 below.

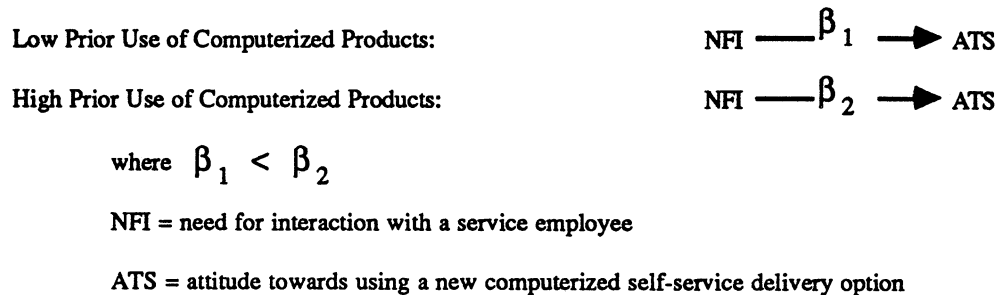
Attitudinal researchers (Ajzen, Timko, and White 1982; Oliver and Bearden 1985) recommend that in addition to developing attitudinal models, it would be worthwhile to explore moderating effects on linkages within these models. Researchers in information processing (Johnson 1989; Park, Iyer, and Smith 1989) also encourage investigation of moderating effects on relationships in information processing models.

On examining the variables in this study for possible moderating effects, it is noted that prior behavior would have a moderating effect on the relationship between the need for interaction and attitude towards the new option. This is based on the observation that greater familiarity with computerized products appears to make people comfortable with using them in any situation. Consequently, for these people, the need for interaction would become less important as a determinant of attitude towards new computerized self-service options (see Figure 2). Thus, the following hypothesis is proposed:

- H4:** Prior use of computerized products will have an attenuating effect on the relationship between need for interaction and attitude towards using a new computerized self-service option.

The literature does not suggest any gender differences in attitudes towards new computerized self-service options. However, two empirical studies did find gender differences that may be relevant for this study. Langeard et al. 1981 found that males showed a

FIGURE 2
Moderating Effect of Prior Use of Computerized Products



stronger preference for self-service options than did females. The authors linked this with the finding that males also tended to be more impatient and disliked waiting more. Breakwell et al. 1987 found that males had more positive attitudes towards new technology in general and believed technology would have more benefits for society. Based on these studies, two exploratory hypotheses are proposed:

- H5a:* Males will have more positive attitudes than will females towards using computerized products in general.
- H5b:* Males will have more positive attitudes than will females towards using a new computerized self-service option.

METHODOLOGY

Research Instrument

The research instrument is based on the scenario and questionnaire approach. The validity of scenarios and the equality of results between laboratory experiments and role playing studies have been well documented (Bem 1967) and this method has been advocated and applied by several researchers in consumer behavior (Bateson 1985; Belk 1974; Surprenant and Solomon 1987). The touch screen ordering option is clearly described in the scenario. It is also explained that price and menu are unchanged for this option. This is then followed by a questionnaire to measure the relevant variables.

The endogenous variables are attitudes towards using computerized products in general and attitudes towards using a new, computerized, self-service option, specifically using a touch screen to order fast food. Four, seven-point, semantic differential items, using endpoints such as good-bad and pleasant-unpleasant, are developed for each construct, consistent with the guidelines suggested by Fishbein and Ajzen (1975) for measuring attitudes.

The exogenous variables are prior behavior with respect to using computerized products and the need for interaction with a service employee. Four, seven-point, frequency items are developed for

measuring prior behavior with respect to using computerized products (e.g., home computers, automated teller machines). A four-item, seven-point, Likert scale for measuring the need for interaction with service employees is developed, after testing several versions for ease of understanding and face validity. Examples of items from this scale are "human contact in providing services makes the process enjoyable" and "I like interacting with the person who provides the service."

Analysis

The unidimensionality and reliability of constructs developed in this study are tested with confirmatory factor analysis, considered superior to conventional measure validation techniques (James, Mulaik, and Brett 1987). The analytical tool is LISREL 7 (Joreskog and Sorbom 1989). The model itself (comprising hypotheses H1, H2, and H3) is tested with a confirmatory design (using LISREL 7). Hypotheses H4, H5a, and H5b are tested using conventional multivariate analyses because the theoretical support for these hypotheses is not as strong as for the model, a condition necessary for meaningful application of confirmatory analysis and LISREL. Hypothesis H4 is tested using a combination of a nested MANOVA and regression analysis, while hypotheses H5a and H5b are tested using t-tests.

Sample

The respondents are students from a large urban university. Using a student sample increases homogeneity for theory development (Calder, Phillips, and Tybout 1981) and thus minimizes the problem of omitted variables and unforeseen interactions. In addition, college students are frequent consumers of fast food (*The Wall Street Journal* 1990) and hence this is a relevant sub-segment of the population of customers of fast food restaurants.

A total of 141 undergraduate students responded to the questionnaire. Sample size is linked with the method of analysis, and it may be noted that successful applications of LISREL have been conducted with about 100 respondents (Davis, Bagozzi, and Warshaw

TABLE 1
Confirmatory Factor Analysis and Construct Reliability
n=141

Scale	# Items	df	χ^2	p	GFI	AGFI	RMSR	Construct Reliability
ATC	4	2	2.12	0.35	0.99	0.96	0.02	0.90
ATS	4	2	5.92	0.05	0.98	0.91	0.03	0.89
PRIOR	4	2	8.41	0.02	0.97	0.85	0.06	0.77
NFI	4	2	1.85	0.40	0.99	0.97	0.02	0.82

ATC = attitude towards using computerized products in general

ATS = attitude towards using a new computerized self-service option

PRIOR = prior use of computerized products

NFI = need for interaction with a service employee

TABLE 2
Causal Analysis Results
n=141

Hypothesis Tested	Parameter	Estimate	Standard Error	t-value
H1	γ_{11}	0.22	0.08	2.71
H2	γ_{21}	0.67	0.15	4.46
H3	γ_{22}	-0.48	0.15	-3.13
Overall Model Fit:	$\chi^2 = 36.75$, $df = 31$, $p = 0.22$ GFI = 0.95, AGFI = 0.91, RMSR = 0.09, R^2 (ATC) = 0.21, R^2 (ATS) = 0.32			

1989, 1991) and an experimental design using LISREL was successfully executed with 60-70 respondents in each cell (Bagozzi and Moore 1991). The sample consisted of 72 males (age range of 21-45, mean age 25.79) and 69 females (age range of 21-44, mean age 25.65).

RESULTS

Study 1: Construct Development

The scales for the constructs in the study were developed as described and tested for face validity by three expert judges (faculty). Confirmatory factor analysis was conducted to check unidimensionality and compute construct reliability (see Table 1). It is seen from the chi-square values, probabilities, and goodness-of-fit indicators, that two of the scales (ATC and NFI) have excellent fits and one more scale (ATS) has an acceptable fit. The fourth scale (PRIOR) does not have as good a fit, but this is understandable because the scale measured frequencies of several

behaviors (e.g., using a home computer, using a VCR, etc.) that need not all be high or low for a given individual. Construct reliabilities were computed from the results of the confirmatory analysis and it is seen that reliabilities for all four scales are much higher than the acceptable 0.5-0.6 for theory development (Nunnally 1978).

Study 2: Causal Analysis

The causal model (see Figure 1) was tested with LISREL 7 (Joreskog and Sorbom 1989). The results of the causal analysis based on covariances are presented in Table 2. It is seen from the Table that the model has a good fit in terms of all the indicators. Furthermore, an examination of the t-values shows that all three hypotheses tested are supported. H1 is supported at $p < .01$, while H2 and H3 are supported at $p < .001$.

Thus, as hypothesized, prior behavior with respect to using computerized products has a positive effect on attitudes towards using computerized products in general, which in turn has a positive effect on attitudes towards using new computerized self-service

TABLE 3A
Nested Manova Results for Hypothesis H4
n=141

Dependent Variable	Independent Variable	Nested Groups	df	F (p <.001)
ATS	NFI	PRIOR (low & high)	2	18.41

ATS = attitude towards using a new computerized self-service option
 PRIOR = prior use of computerized products
 NFI = need for interaction with a service employee

TABLE 3B
Regression Analysis Results for Hypothesis H4

Group	n	Parameter Estimate (NFI → ATS)	Standard Error	F (p <.001)	Adjusted R ²
Low PRIOR	80	-0.42	0.07	19.44	0.32
High PRIOR	61	-0.33	0.08	7.84	0.19

options. Also, as proposed, the need to interact with service employees has a negative effect on attitudes towards using new computerized self-service options.

Study 3: Moderating Effect

The moderating effect (see Figure 2) was tested using a nested MANOVA and regression analysis. A nested MANOVA compares the slopes of the regression equations for the groups under consideration, and it is seen from Table 3A that a moderating effect was present (F=18.41, p <.001). Thus, the effect of the need for interaction with a service employee, on attitudes towards using a new computerized self-service option, was found to be significantly different for low and high prior use of computerized products.

To see if the moderating effect was in the predicted direction, regression analysis was conducted for low and high prior use groups (see Table 3B). Based on a comparison of the parameter estimates, F-values, and adjusted R² values, it is seen that hypothesis H4 is supported. Thus, as predicted, prior use of computerized products has an attenuating effect on the relationship between need for interaction with a service employee and attitude towards using a new, computerized, self-service option in on-site service encounters.

Study 4:

Gender differences (H5a and H5b) were tested using two t-tests. The results are presented in Table 4 and do not support either hypothesis. There was no difference between men and women in their attitudes towards using computerized products in general (t = -0.53, n.s.). Moreover, women had a more favorable attitude than did men (t= -2.91, p <.005) towards using new, computerized, self-service options.

DISCUSSION

Both information processing literature and attitudinal research have concentrated on product situations and largely ignored service situations. This study, drawing on the information processing paradigm, uses a service setting to investigate determinants of customer attitudes towards new options in service delivery. Thus, the model represents an extension of both streams of research to service settings.

The model is supported and validates the effect of prior behavior and category-based affect in service settings. The study also addresses issues of concern to services marketing researchers. It is found that attitudes towards new computerized self-service options are adversely affected by the need for interaction with a service employee, but that this effect is mitigated by greater familiarity with computerized products.

TABLE 4
T-Tests for Gender Differences in Attitudes

Hypothesis Tested	Gender	Mean	t-value	p
H5a	Male	5.83	-0.53	0.599
	Female	5.91		
H5b	Male	5.08	-2.91	0.004
	Female	5.62		

The findings that females have more favorable attitudes than do males towards new, computerized, self-service options, and that there are no gender differences in attitudes towards using computerized products in general, appear to contradict findings from the two earlier studies by Langerad et al. 1981 and Breakwell et al. 1987. One explanation for these results may be that the Langedard et al. study, which examined self-service versus full-service, used a sample from the general population, and students may not show gender differences for self-service options. The other explanation may lie in the fact that the Breakwell et al. study, which did use a student sample, examined attitudes towards the effects of new technology on society, rather than attitudes towards using products based on technology. It may be that females had a less favorable attitude in the Breakwell study because they were more sensitive to issues such as unemployment caused by technology. In this study, however, their attitudes towards using technology are measured, and it appears that women students, at least, seem to have more favorable attitudes towards using new service options based on technology, than do men.

The study provides several implications for practitioners as well. Those people (students, professionals, white collar workers), who are familiar with computerized products, are more likely to have favorable attitudes towards using new, computerized, self-service options. Therefore, it would be strategically sound to locate such service delivery options at sites frequented by these populations. In other words, familiarity with computerized products can be used as a basis for segmentation.

Firms may also wish to promote familiarity with computerized products in the general population as a long term strategy, since familiarity will positively affect attitudes towards these new service options. However, given that the need for interaction with a service employee does have a significant negative effect on attitudes, it may be prudent to provide full service options alongside these self-service options in locations frequented by the general public, so that customers can have a choice of service delivery.

Although the use of cross-sectional data implies that the temporal sequence of relationships cannot be guaranteed, cross-sectional data is commonly used in causal analysis, and appears to be

quite acceptable if there is theoretical support to suggest the causal paths for the hypotheses.

A student sample was considered appropriate for theory development, due to the relative sample homogeneity, and for the setting used in this study, as students are a relevant sample for fast food restaurants. The results may be generalized to other urban student populations, and to some extent, to populations with similar levels of familiarity with computerized products.

For future research, the study could be replicated with a sample from the general population to explore age and educational differences in attitudes. Older or less educated people, for example, may have a greater need for interaction with the service employee, as well as lower familiarity with computerized products. These differences, in turn, may be reflected in their attitudes towards new, computerized self-service options. Also, using a random sample from the general population would further validate the model developed in this study. Future studies could also test the model with different samples across the country to explore regional and cultural differences.

The results of this study should interest any firm that is interested in providing a computerized self-service delivery option to customers. Examples of such options would include airline ticketing machines at airports, computer ordering in catalog stores, closed-circuit check-out in hotel rooms, and touch screen ordering for photo processing. This study could be a starting point for future research that investigates customer attitudes towards using other innovative service delivery options.

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The Role of Post-Experience Comparison Standards in the Evaluation of Unfamiliar Services

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ABSTRACT

Previous research suggests that consumers evaluate service encounters by comparing them to prior expectations or other pre-experience comparison standards. The present research addresses the evaluation of services for consumers who lack the information or experience to construct detailed pre-experience comparison standards and so must rely on a more bottom-up approach to the evaluation. An exploratory study was conducted to examine the nature and content of consumers' expectations for unfamiliar services and on their post-experience evaluations. Results of the exploratory study indicate that consumers may indeed evaluate novel or unfamiliar services on "post-experience comparison standards" suggested by characteristics of the service encounter itself. The article considers differences in evaluations for consumers who rely primarily on pre- versus post-experience comparison standards.

In a recent article on models of consumer satisfaction, Tse and Wilton (1988) note that "it is generally agreed that post-consumption consumer satisfaction/dissatisfaction (CS/D) can be defined as the consumer's response to the evaluation of the perceived discrepancy between prior expectations (or some other norm of performance) and the actual performance of the product as perceived after its consumption" (p.204; see also Day 1984). Models of CS/D have emphasized the role of a pre-experience comparison standard (Beardon & Teel 1983; Cardozo 1965; Day 1977; Liechty & Churchill 1979; Miller 1977; Oliver 1977, 1980; Woodruff, Cadotte & Jenkins 1983) and the extent to which this pre-experience standard is disconfirmed (Anderson 1973; Beardon & Teel 1983; Cadotte, Woodruff & Jenkins 1987; Day 1977; Howard & Sheth 1969; LaTour & Peat 1979; Maddox 1981; Oliver 1977, 1980; Olshavsky & Miller 1972; Swan & Combs 1976; Swan & Trawick 1981; Woodruff, Cadotte & Jenkins 1983). Thus, a large body of research on consumers' satisfaction or dissatisfaction with products may be described using the so-called "disconfirmation paradigm".

The post-consumption evaluation of service quality is frequently asserted to be more difficult than the evaluation of products, primarily because of the intangibility of services, the heterogeneity across service encounters and the inseparability of production and consumption (e.g., Gronroos 1982; Lehtinen & Lehtinen 1982; Lewis & Booms 1983; Parasuraman, Zeithaml & Berry 1985; Sasser, Olsen & Wyckoff 1978). Nevertheless, the evaluation of services, like the evaluation of products, is said to involve a comparison of expectation with performance:

Service quality is a measure of how well the service level delivered matches customer expectations. Delivering quality service means conforming to customer expectations on a consistent basis (p.100, Lewis & Booms 1983).

The utility of this view of the evaluation process is demonstrated by the work of Parasuraman et al. (1985), which extends the notion of disconfirmation to a more general model of service quality. This model has direct managerial implications and also provides a structure for future research. Specifically, these authors propose five "gaps," including the gap between consumers' expectations and the actual service delivered, that determine service quality. For example, Parasuraman et al. posit that service quality may be influenced by the gap between management perceptions of consumers' expectations and the expectations themselves, between management perceptions of consumers' expectations and service quality specs, between service quality specs and the actual service delivered, and between service delivery and external communications to the consumer. Thus, the idea that consumers' evaluations are determined by the gap between consumers' expectations and their actual service experiences is intuitively appealing, provides a useful basis for additional research on the determinants of service quality, and carries with it the benefit of a large body of literature on CS/D that may be applied to understanding how people evaluate service quality.

A question that has not yet been addressed in the literature, however, and one that may become increasingly important as the size of the service sector continues to grow in the North American economy concerns how the disconfirmation paradigm may be applied to novel or unfamiliar service encounters. In particular, it is not clear how the notion that people compare their experiences to a *pre-experience* comparison standard may be applied to the evaluation of services for which the consumer has little information or experience to generate a meaningful expectation--i.e., when so little is known by consumers about the class of services that their expectations are imprecise and without much detail. Examples of such services may include consumers' initial experiences with visiting an attorney, seeing a therapist, getting a fitness evaluation, hiring a caterer, taking a marketing class, or visiting a career counselor. In each of these cases, novice consumers may have a general idea of what they hope to get out of the service and a vague sense of what the experience might be like. However, it is likely that consumers' expectations are quite impoverished relative to the actual experience, containing far fewer attributes than

consumers will in fact notice in experiencing the service.

Unfortunately, little information is provided in the marketing literature on the nature or content of consumers' expectations for unfamiliar services. Past studies have either manipulated subjects' expectations (e.g., Olshavsky & Miller 1972) or focused on relatively familiar services (e.g., Parasuraman et al. 1985; Cadotte, Woodruff, & Jenkins 1987). The question then is how do consumers evaluate novel service experiences? We draw on the marketing and psychology literatures, which suggest three possible answers to this question.

The first possibility is that consumers evaluate novel experiences on only those few attributes included in their expectations. For example, a novice consumer may expect attorneys to have nice offices, to dress in suits, and to use unfamiliar jargon. On visiting an attorney for the first time, the novice consumer may limit the evaluation to these three attributes. This view preserves the importance of the pre-experience standard of comparison as described in the literature on CS/D and carries with it the plausible assertion that novice consumers consider very few attributes in their evaluations because they simply don't know what to look for. This approach would keep the evaluation task simple for the novice.

A second possibility is that novice consumers cope with their inexperience by shifting to a higher level of abstraction. Research in marketing indicates that in choosing between so-called "noncomparable alternatives," which share few basic features, consumers shift to a higher level of abstraction to effect the comparison (Johnson 1984). Thus, in choosing between a stereo and a vacation, consumers may compare the alternatives on abstract features such as practicality, opportunity for self-improvement, or length of time over which the alternative will provide enjoyment. The application of this idea to the evaluation of unfamiliar services yields the suggestion that although novice consumers may not have any directly comparable experiences to help them construct an expectation for the service, they may have experiences that are comparable at a higher level of abstraction. For example, consumers who haven't been to an attorney might have trouble constructing expectations the way experienced people might--e.g., on detailed features specific to attorneys such as knowledge of relevant case law, education, and ability to predict the opposing attorney's strategy. Novice consumers may nevertheless construct expectations based on abstract features such as friendliness, self-confidence, and articulateness. It is possible also that this second approach based on abstract features may provide a way to reconcile Westbrook and Reilly's (1983) view of CS/D with the disconfirmation paradigm. Westbrook and Reilly suggest that people determine satisfaction not by comparing their experiences to a pre-experience comparison standard but instead by noting how well the alternative filled their needs or wants. At a very high level of abstraction, consumers may compare the outcome of their experience to the level of the utility or value that they had expected to receive.

A third possibility that we would like to propose is that people evaluate services by generating a comparison case after the fact. Novice consumers may be unable to generate detailed expectations in advance, but upon experiencing the service, they may see how it could have been otherwise. The service is evaluated as suggested by the disconfirmation paradigm--i.e., on the gaps between what was and what might have been. The difference is that the comparison standard is generated during or after the consumption experience, not before. Hence, this third view suggests a more bottom-up versus top-down approach to the evaluation of services.

Thus, we identify three possible approaches to the evaluation of unfamiliar services--i.e., based on a pre-experience comparison standard at a low level of abstraction, based on a pre-experience comparison standard at a high level of abstraction, or based on a post-experience comparison standard. Further, all three approaches may be present in a single evaluation. For example, consumers may evaluate the movie BATMAN on detailed features included in their expectations (e.g., "I expected Robin to be in it"), on abstract features derived from experiences with other action-adventure movies ("I expected it to be high-energy and fast-paced"), and on detailed features suggested after the fact ("It ruined it for me when they showed the Batmobile indestructible but the Batplane something you could shoot out of the sky with a handgun").

As this example suggests, evaluations based on post-experience comparison standards may be based on different types of attributes or features than evaluations based on pre-experience comparison standards. In particular, in contrast to the suggestion that consumers evaluate service encounters at a high level of abstraction, comparison to a post-experience standard suggests an evaluation based on specific details. An example may be student assessments of courses and instructors. Although frequently ingenuous in their expectations (e.g., "I hope to gain insights to make me a better manager"), student course evaluations often appear based on minute details (e.g., "use more subheadings in lecture outlines", "make more frequent eye contact with students"). Further, it would appear that these details are not likely to be those included in an expectation generated in advance, but rather appear available to the consumer only by virtue of having experienced the service. Thus, an important advantage of this third view, which proposes use of post-experience comparison standards, is its ability to explain how features that are not included in consumers' expectations influence the evaluation.

The purpose of the present research is to examine this third approach based on post-experience comparison standards in greater detail. An important goal first for this research was to gather evidence for the evaluation of services on features that were not included in consumers' expectations but which were suggested by the service encounter itself. To accomplish this goal, we conducted an exploratory study designed to examine the nature of consumers' expectations for unfamiliar services and the basis for

consumers' post-experience evaluations. In keeping with the three alternatives proposed for the evaluation of novel or unfamiliar services, we were particularly interested in determining whether these expectations and evaluations were based on many or few attributes and whether these attributes were expressed at a high or low level of abstraction.

After presenting results for the exploratory study, we interpret differences in the evaluation of services based primarily on pre- versus post-experience comparison standards in light of recent research by Kahneman and Miller (1986). These authors provide a theoretical basis for understanding a) how people may construct post-experience comparison standards and b) how evaluations based on post-experience comparison standards may differ from those based on pre-experience comparison standards. We present formal propositions regarding the nature of these differences and suggest methods for their examination.

STUDY

Method

Subjects. Subjects were 21 members of the Northwestern University community who had enrolled in an introductory workshop on a computer spreadsheet package. The workshop was conducted by the computer services division of the university and was designed for individuals with little or no prior computing experience. Subjects were given \$1.00 "as a small token of our appreciation" for agreeing to fill out the questionnaire.

Materials. Subjects answered a pre-experience and post-experience questionnaire. The pre-experience questionnaire asked subjects to describe the upcoming workshop in terms of what they expected to get out of the experience ("What are the main reasons you are planning to attend this workshop?") and in terms of how they expected to evaluate the workshop ("How will you evaluate this workshop? What factors will affect your satisfaction with this workshop?").

The post-experience questionnaire asked subjects to describe the workshop. Subjects were asked to "consider such things as what it was like to be in the workshop, how the instructor was, what you learned, and so forth" in describing the experience. Subjects were also asked to indicate, "What factors influenced your assessment of the workshop? What affected your satisfaction or dissatisfaction?" Finally, subjects were asked to evaluate *perceived performance* of the workshop ("...your objective assessment of the quality of the workshop, regardless of your personal level of satisfaction with the service..." on a 7-point scale ranging from "very poor" to "excellent" quality), *subjective disconfirmation* ("...how close the workshop came to satisfying your expectations for the service..." on a 7-point scale ranging from "very much poorer" to "very much better" than expected), and *satisfaction* ("...how satisfied are you with the workshop..." on a 7-point scale from "very dissatisfied" to "very satisfied"). These scales were adopted from Tse and Wilton (1988). Support for

these scales can also be found in Churchill and Suprenant (1982) and Oliver (1980).

Procedure. Subjects were contacted before the workshop and asked if they would be willing to fill out a questionnaire on the upcoming experience. Subjects were told that the purpose of the questionnaire was "to help understand how people evaluate experiences such as workshops and to assist the computing center in improving their services." Written instructions for the questionnaire were as follows:

Thank you for participating in this study. Please accept the dollar as a small token of our appreciation.

On the following pages, we ask you to describe your expectations for various services including the workshop in which you are about to participate. Please describe your expectations in as much detail as you can, noting both major and minor features. Also, try to include even "obvious" features in your description. For example, you might expect an optometrist to have a chart of letters on the wall and to evaluate your vision by asking you to read these letters. Even though this sort of thing may seem almost too common to mention, we ask that you please include such features in your description.

Please note that there are no right or wrong answers to any of these questions. For coding purposes, please write down the last 4 digits of your social security number: _____.

The post-experience questionnaire, which subjects were not told to anticipate, was administered at the end of the workshop. Instructions for the post-experience questionnaire informed subjects that "on the following pages we ask you to describe and evaluate the workshop you attended." Subjects were again asked to provide the last four digits of their social security number for coding purposes. Subjects spent roughly 10 minutes filling out each the pre-experience questionnaire and the post-experience questionnaire.

Results. Subjects' expectations and descriptions of the service in the pre-experience and post-experience questionnaires were coded as "abstract" meaning they could be applied to any workshop, class, or service or "specific" meaning they applied to the specific characteristics, outcomes, or content of the workshop on the particular spreadsheet program. Responses were further categorized as referring to a) the "outcome" of the service--i.e., what the person hopes to gain from the workshop--b) the "process" by which the service was delivered--i.e., the materials in the course, the behavior of the instructor, and so forth. Responses that could not be classified into any of the above categories were coded as "other." Figure 1 provides an example of each category of response. Table 1 displays the mean number and mean proportion of responses in each category for the pre-experience and post-experience questionnaires.

FIGURE 1

Examples of Features Provided on the Pre-experience and Post-experience Questionnaires by Category

Abstract

Process Pre "It's interesting to attend classes. I like it better than reading."
Post "I found the instructor courteous and energetic."

Outcome Pre "As a senior about to interview for jobs, I want to have the most up-to-date skills."
Post "I feel I learned a lot of new ideas and things."

Specific

Process Pre "It will matter if there is enough time to practice the new skills on the computer."
Post "I wasn't happy about the assistants walking around and the general noise level in the room."

Outcome Pre "I want to be able to sit down and program in [this package]."
Post "I learned some basic [program] commands."

Results confirm that subjects evaluated the workshop on attributes that were not included in their expectations but which were suggested by the service encounter itself. The first indication of this pattern is that subjects provided relatively more detailed descriptions in the post-experience questionnaire than in the pre-experience questionnaire ($t(19) = 3.77$, $p < .001$, matched t-tests). This difference in detail may also be attributed in part to a more general tendency to provide more detailed accounts for past versus future events (Bavelas 1973).

Additional evidence for the generation of post-experience comparison standards comes from examination of the nature of subjects' expectations and post-experience evaluations. We consider first the pre-experience questionnaire. When asked to describe their reasons for attending the workshop (Q1--see Table 1), subjects overwhelmingly provided reasons related to the outcome of the service ($t(20) = 14.06$, $p = .000$, matched t-tests). Further, subjects tended to mention specific outcome features in greater proportion than abstract outcome features ($t(20) = 2.74$, $p = .013$). That is, subjects for the most part indicated their reasons were related to how they would use the specific course material, for example, "everyone else in my office uses [this spreadsheet package] and I need to be compatible."

When asked how they expected to evaluate the upcoming workshop (Q2), subjects provided a different mix of features. Subjects again mentioned outcome features in greater proportion than process features, but for this question the difference was only marginally significant ($t(20) = 1.77$, $p = .092$). The decrease in proportion of process features was due to relatively more frequent mention of abstract process features ($t(20) = 3.15$, $p = .005$) and relatively less frequent mention of specific outcome features ($t(20) = 2.67$, $p = .015$) compared to the preceding question on reasons for attending the workshop. The proportion of abstract outcome and specific process features did not change significantly (p 's $> .25$). Thus, although subjects emphasized specific outcome features when asked how they would evaluate the workshop, they

described their evaluation standard more frequently in terms of abstract features, particularly abstract *process* features. This outcome suggests that subjects intended to evaluate the workshop using general cues to quality that could be applied across service encounters of this sort--e.g., on the professional manner of the instructor or the general appearance of the handout material.

Whatever subjects' expectations or intended evaluation standards, the post-experience questionnaire indicated a wholly different response to the experience. In contrast to the pre-experience questionnaire, subjects described the workshop (Q3) primarily in terms of process features ($t(20) = 6.17$, $p = .000$), dividing their comments almost equally between abstract and specific process features ($t(20) = .90$, $p = .377$).

Subjects' listing of features that ultimately influenced their satisfaction with the experience (Q4) revealed a similar pattern. Process features were more commonly mentioned ($t(19) = 5.78$, $p = .000$, with specific process features (e.g., "the assistants were distracting when they walked behind me") mentioned in somewhat greater proportion than abstract process features (e.g., "there was plenty of time for questions"), although this difference was not significant ($t(19) = 1.59$, $p = .13$).

In contrast to what might have been expected from the literature on the disconfirmation paradigm, comparison of subjects' listing of features that affected their level of satisfaction in the post-experience questionnaire (Q4) were not entirely consistent with the listing of factors that they *expected* to affect their level of satisfaction in the pre-experience questionnaire (Q2). The proportion of abstract process features did not change significantly ($t(19) = .32$, $p = .756$). However, the proportion of abstract outcome features and specific outcome features dropped significantly (abstract outcome features, $t(19) = 2.28$, $p = .034$; specific outcome features $t(19) = 2.85$, $p = .01$), while the proportion of specific process features increased significantly ($t(19) = 6.61$, $p = .000$). The increase in proportion of specific process features is

TABLE 1
Mean Number and Mean Proportion of Responses by Category

<i>Pre-Experience Questionnaire</i>		<u>Mean Number</u>		<u>Mean Proportion</u>	
Q1: Reasons for Attending					
Abstract		.76		.301	
outcome			.66		.261
process			.10		.040
Specific		1.74		.688	
outcome			1.70		.672
process			.04		.016
Other		.03		.011	
Q2: Expected Evaluation Standard					
Abstract		1.31		.587	
outcome			.58		.261
process			.73		.326
Specific		.92		.413	
outcome			.87		.389
process			.05		.024
Other		0		.000	
Post-Experience Questionnaire					
Q3: Description					
Abstract		2.38		.526	
outcome			.29		.063
process			2.09		.462
Specific		1.92		.425	
outcome			.38		.085
process			1.54		.340
Other		.22		.049	
Q4: Actual Evaluation Standard					
Abstract		.93		.359	
outcome			.12		.046
process			.81		.313
Specific		1.60		.616	
outcome			.22		.085
process			1.38		.531
Other		.07		.025	

particularly noteworthy; whereas the proportion of these features was not reliably greater than zero in the pre-experience questionnaire ($Q2-t(21) = 1.00, p = .17$), specific process features assumed a strict majority in the actual evaluation ($Q4--53\%$). The frequency of mention of specific process features in the post-experience questionnaire indicates that the inexperienced consumers who participated in the present study were satisfied or dissatisfied with the workshop because of small details--details that they did not mention as part of their expectations for the

service and which it would be difficult to imagine them able to mention before experiencing the service given the particular nature of these features.

We also examined the relationships among the perceived performance, subjective disconfirmation, and satisfactions scales for evidence for the use of pre-experience and post-experience comparison standards. As the current CS/D literature would predict, subjects' ratings of their satisfaction with the workshop were highly correlated with their ratings of the extent to which their expectations were met by the workshop--

i.e., their ratings of subjective disconfirmation ($r = .599, p < .003$). Furthermore, ratings of subjective disconfirmation were only partly related to their ratings of perceived performance ($r = .360, p < .064$), a result that is sensible if confirmation is a function of the objective assessment and subjects' expectations. However, we also note that ratings of perceived performance were an even better sole predictor of satisfaction ($r = .696$ vs. $.599$) than was the subjective disconfirmation rating. That is, while theoretically the perceived performance and the expectation together are expected to predict satisfaction better through the disconfirmation process, the perceived performance ratings alone predict satisfaction more clearly, and expectations as evidenced through the disconfirmation rating add only noise to the prediction of satisfaction.

Discussion. One of the most striking aspect of the exploratory study was the difference in features mentioned in the pre-experience and post-experience questionnaires. Subjects' post-experience evaluations appeared influenced primarily by specific process features, although these features were rarely mentioned in the pre-experience questionnaire. This pattern of results suggests use of a post-experience comparison standard in which consumers' satisfaction is determined by first experiencing the service and then imagining how it could have been otherwise. The implication of this finding is discussed in the following sections.

However, instead of viewing the large proportion of specific process features in the post-experience questionnaire as inconsistent with the pre-experience questionnaire, we also considered the possibility that specific features were cited merely as examples of the abstract. For example, we considered the possibility that subjects mentioned specific process features (e.g., "the instructor told stupid jokes") in the post-experience questionnaire as evidence for the abstract standard articulated in the pre-experience questionnaire (e.g., "professionalism of the instructor"). Future research is needed to evaluate this view further, but it is our belief that the specific process features affected the consumers' satisfaction directly and not as evidence for a more abstract standard. This belief is based on the previously stated theoretical concerns and on closer scrutiny of subjects' post-experience questionnaires wherein subjects appeared to describe their satisfaction as a direct consequence of the specific process features (e.g., "I was annoyed because the instructor told stupid jokes"). Subjects did not articulate any relationship between specific process features and an abstract standard, for example in comments of the form "the instructor told stupid jokes which just didn't seem professional."

Results of the exploratory study also suggest that consumers may experience considerable difficulty in translating their reasons for purchasing a service into an effective evaluation standard. Subjects in the present study articulated their reasons for attending the workshop primarily in terms of specific *outcome* features. However, subjects based their evaluations of the workshop more frequently on specific *process* features. Subjects may have adopted this approach

because while process features were immediately available, outcome features may be more difficult to assess until some later date. This reasoning suggests that consumers may evaluate services on different classes of features at different points in time. Nevertheless, the scant proportion of outcome features in the post-experience questionnaire is surprising given the importance of these features in the pre-experience questionnaire. One might have expected relatively more frequent comments in the post-experience questionnaire of the form, "I liked (disliked) the workshop because I think I learned a lot (very little)." The particulars of the experience appear, however, to have dominated subjects' evaluations.

DIFFERENCE IN EVALUATION FOR PRE-VERSUS POST-EXPERIENCE STANDARDS

While previous research posits that consumers evaluate services by comparing their actual service experiences to pre-experience comparison standards, results of the exploratory suggest that consumers may in some cases evaluate the actual service experience relative to a standard of comparison that is generated after the fact. In this section, we examine differences in the evaluation of services for subjects who compare the experience to a pre-experience comparison standard versus those who rely primarily on a post-experience comparison standard.

Attribute Importance

Differences in the evaluation may derive from how post-experience comparison standards are constructed versus expectations or other pre-experience comparison standards. Research by Kahneman and Miller (1986) suggests the likely characteristics of a post-experience comparison standard. These authors note that in constructing an alternative to a stimulus, people will hold some features constant while they let other features vary. Kahneman and Miller propose that "the mental representation of a state of affairs can always be modified in many ways, that some modifications are much more natural than others, and that some attributes are particularly resistant to change" (p.142-43).

Kahneman and Miller further suggest the sorts of features that are likely to be held constant ("immutable features") as opposed to those which are likely to be let vary ("mutable features"): "a plausible hypothesis is that the essential features that define the identity of the stimulus are most likely to be maintained as immutable. This hypothesis has surprising consequences: it entails that judgments of a stimulus evaluated in isolation will tend to be dominated by features that are not its most central" (p.141). The implication of this proposal for the present research is that when a service encounter is evaluated in isolation, for example when the consumer has no previous experience or does not have the ability or inclination to produce a well-formed expectation, the consumer may construct a comparison standard post hoc. The post-experience comparison standard is proposed to resemble the

service experience on its more central, more important attributes but to differ on its less central, less important attributes thereby affording the less important attributes greater influence in the evaluation. By contrast, when the service encounter is evaluated in context, for example, when it is compared to an expectation, prior service encounter, or other pre-experience standard, evaluations should derive primarily from differences on the more central, more important attributes (LaTour & Peat, 1979; Tse & Wilton, 1988). The following proposition reflects this reasoning:

- P1: Evaluations of a service relative to a post-experience comparison standard will tend to be influenced by less central, less important features as compared to evaluations relative to a pre-experience comparison standard.

Thus, in evaluating an attorney, for example, consumers who rely on a post-experience comparison standard may evaluate the attorney relatively more on how they were greeted at the office, which they imagine could have been more cordial, than on the attorney's level of experience, which they took for granted (and so treated as immutable). However, these same consumers may independently concede that the level of experience of an attorney is more central and more important to assessing overall quality than the attorney's manners. By contrast, consumers who approached the experience with a pre-experience comparison standard, although put off by the attorney's manners, may nevertheless evaluate the attorney to a greater extent according to his/her level of experience as prescribed by the relative importance of these attributes.

Attribute Type

Our second proposition concerns the types of features that are likely to influence the evaluation. As noted above, researchers have made the distinction between "process features," which concern how the service is delivered, and "outcome features," which concern the benefits for which the service is purchased (e.g., Parasuraman et al. 1985). For example, process features for dental service may concern the pleasantness of the interactions with the dentist and hygienist, the promptness and cleanliness of the office, and the comfort or discomfort of procedures. Outcome features might concern, for example, clean teeth, filled cavities, and a sense of well-being.

We propose that process features may be further decomposed into two types. "Dynamic process features" refer to the behavior of the service provider toward the consumer--e.g., courtesy, friendliness, and responsiveness. "Static process features" refer to fixed or semi-fixed characteristics of the service provider that do not vary from customer to customer--e.g., age, gender, education, level of knowledge of the dentist--and to the fixed characteristics of the production process itself--i.e., the formal steps or procedures involved in the delivery of the service. An

example of the latter would be the use of a dental assistant to take x-rays and to perform the initial examination.

We propose that dynamic process features may be treated as relatively more mutable in constructing imagined alternatives to an experience than static process features. For example, in constructing a post-experience comparison standard for a visit to the dentist, novice patients (for example, those who haven't been to a dentist since, say, childhood) may be more likely to imagine the dentist less gruff in response to their questions than to imagine the dentist and not the assistant responsible for the x-rays. Patients may be similarly disinclined to imagine the dentist with different traits, for example, younger or a different gender. Thus, patients may base their evaluations more on the behavior of the dentist than on the specific traits of the dentist or on the structure of their visit:

- P2: Evaluations of a service relative to a post-experience comparison standard will tend to be influenced more by the interpersonal behavior of the service provider than by traits of the service provider or characteristics of the service itself as compared to evaluations relative to a pre-experience comparison standard.

Number and Consistency of Attributes

Two other differences concern the consistency with which a standard of comparison is applied in the evaluation of a service and the number of attributes that are used across different evaluations. A pre-experience comparison standard implies, by definition, that the attributes used in the evaluation will not shift depending on the features of the particular service encounter. In addition, the attributes used in the evaluation should not shift markedly from service encounter to service encounter. By contrast, a post-experience comparison standard implies, by definition, a standard that is constructed in response to the features of a given service encounter. Thus, each service encounter creates its own standard of evaluation and the standard may shift from service encounter to service encounter. For example, students who rely on post-experience comparison standards may not evaluate instructors on a consistent set of attributes such as knowledge of the course material, organization, and preparedness, but instead may evaluate each instructor on a separate set of attributes depending on the alternatives that were available for each experience. Thus, consumers with less experience, who generate standards of comparison after having experienced the service, may be especially difficult to please or to predict because their evaluations are based on largely inconsistent and varied sets of attributes.

A similar view is offered by those concerned with the cognitive complexity of individuals. Research in this area suggests that when subjects are asked, for example, to make pairwise similarity judgments, more sophisticated processors may be better able to produce and use consistently the

dimensions required to accommodate a set of objects (Scott, Osgood, & Peterson, 1979). Less sophisticated processors, by contrast, may not be able to generate the general dimension needed to accommodate the entire set and so instead make do with a series of fractionated similarity judgments on less general dimensions (Malholtra, Pinson, & Jain, 1989). Thus, evaluations by those who generate a pre-experience comparison standard may differ from evaluations by those who generate the comparison standard post hoc on the number and consistency of attributes:

P3: Variability in the attributes used to evaluate service encounters will tend to be greater among consumers who rely on a post-experience comparison standard compared to consumers who rely on a pre-experience comparison standard; and

P4: Consumers who evaluate services relative to a post-experience comparison standard will tend to base their evaluations on a larger set of attributes than groups who evaluate services relative to a pre-experience comparison standard.

Quality of the Evaluation

Finally, differences in the quality of the evaluation are expected for consumers who rely on pre-versus post-experience comparison standards. Past research indicates that in constructing an alternative to a stimulus, people are more likely to change negative features to positive rather than positive to negative; the goal appears, at least, to contrast the actual stimulus with an ideal (Kahneman & Miller, 1986; Read, 1985). This method of constructing a post-experience standard of comparison implies a typically harsh evaluation, the stimulus must always be less desirable than the post-experience standard. By contrast, when the actual experience is compared to a pre-experience standard of comparison which is not an ideal, the evaluation may be positive, negative or neutral, depending on the relative values of attributes of the experience and the standard (e.g., Woodruff, Cadotte & Jenkins, 1983). Hence, this reasoning implies that evaluations by consumers who construct the comparison standard after the fact will differ from those by consumers who construct the standard in advance:

P5: Evaluations of a service relative to a post-experience comparison standard will tend to be less favorable as compared to evaluations relative to a pre-experience comparison standard.

CONCLUSION

Results of the exploratory study suggest that in some cases, people may evaluate services in a more bottom-up ("data-driven") approach than has been suggested previously in the literature. The present research has focused on those who find it especially difficult to develop a detailed top-down strategy for

evaluation because they lack the necessary information and experience. It seems plausible, however, that even knowledgeable customers would sometimes rely on bottom-up processing, for example, when they are pressed for time or when they are not motivated to consider the service much in advance because it is not perceived as very important. Although research in marketing is frequently sensitive to the use of bottom-up processing, for example, in discussing the effectiveness of advertising and promotional messages, there is little discussion of this sort of processing in post-purchase evaluations. The present research on the generation and use of post-experience comparison standards addresses this gap in the literature by identifying the phenomenon and by suggesting how so-called "data-driven" evaluations progress. Four of the propositions presented describe differences in the evaluation for top-down versus bottom-up processors and concern the number, importance, type, and stability of attributes that may be used in the evaluation. The fifth proposition concerns the nature of the evaluation and suggests that bottom-up processors may be more difficult to please in their evaluations.

Recent research in marketing has focused on the importance of managing what consumers learn from experience (e.g., Hoch & Deighton 1989). Consistent with this literature, the propositions detailed in the present article suggest that service providers may benefit by helping consumers to develop pre-experience comparison standards instead of allowing consumers to construct evaluations after the fact. Future research should test these propositions and develop additional propositions on the differences between top-down and bottom-up processors.

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Determinants of Word-Of-Mouth Communications During Product Consumption

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ABSTRACT

Word-of-mouth (WOM) communications which occur during product consumption have received little attention from consumer researchers. In this paper, factors which may "spark" WOM during consumption are examined. Findings from a field study show that WOM can be partially explained by: (1) social tie strength, (2) the presence/absence of an individual taking a committed decision maker role, (3) consumer satisfaction and, (4) perceived novelty.

Foods, sporting goods, musical concerts, and videotaped movies all have one thing in common--they are often consumed in groups. And, when products are consumed in groups, there is the possibility that word-of-mouth communications (WOM) may occur. Indeed, Belk (1971) found that WOM is most likely to occur when individuals are in close proximity to a product. In this study, several factors which may influence the amount of WOM during consumption are examined.

The traditional notions of information seeker and information receiver seem to be inappropriate when studying WOM which occurs during product consumption since individuals in this situation are simply sharing thoughts--they are not necessarily providing and requesting information. For this reason, WOM communication is conceptualized herein as a group phenomenon--an exchange of comments, thoughts, and ideas among two or more individuals in which none of the individuals represent a marketing source.

Several factors may "spark" WOM during the consumption experience. This paper examines aspects of the social environment, objective characteristics of the situation, and individuals' perceptions of the consumption experience as determinants of how much WOM about the product/service occurs (cf. Yale 1987a). In the next section of this paper, these potential determinants of WOM are discussed. Then, an empirical investigation of these factors is presented.

THE SOCIAL ENVIRONMENT OF A CONSUMPTION GROUP

Two aspects of the social environment of a consumption group are of interest here: social ties and the social role of committed decision maker. Social ties represent the strength of a consumer's relationship to the people accompanying him/her. Since relationship strength has been shown to influence information flow from consumer to consumer (Brown and Reingen 1987), it is also likely to affect discussions during consumption. Rumor researchers suggest that persons in a new social relationship spread rumors in order to learn more about each other (Fine and Rosnow 1978). Taking this concept further, individuals who are simply acquaintances or casual friends (i.e., have weak social

ties) may attempt to strengthen friendships. They may look for safe, uncontroversial topics of discussion that can be used to get to know each other better (Yale 1987a). Discussion about products/services consumed may meet consumers' needs to learn more about their companions. Thus, it is suggested that the weaker the social ties that exist among group members, the more WOM will occur.

A second component of the social environment is whether one or more of the group members takes on the role of a committed decision maker. Conceptually, a committed decision maker is an individual who selects the product/service to be consumed *and* is enthusiastic about sharing this consumption experience with his/her companions. For instance, assume John lives in New York City and has friends coming to visit for the weekend. John wants to show off New York, so he carefully chooses a restaurant that he particularly likes. He has taken the role of committed decision maker.

The committed decision maker makes a choice that is visible and affects other people. This situation is likely to create some psychological dissonance for the decision maker, so, s/he will seek confirmation of the choice from her/his companions (Stuteville 1968). In fact, Dichter (1966) proposes that group members are motivated to report their experiences and opinions to the decision maker and that the decision maker expects such reports. This suggests that whenever there is a committed decision maker in a group, WOM is likely to occur.

OBJECTIVE SITUATIONAL CHARACTERISTICS

Belk (1975a, 1975b) suggested five categories of objective situational variables, two of which are examined in this paper: temporal perspective and task definition. Temporal perspective deals specifically with the concept of time. Belk (1975a) proposes that the time elapsed since last purchase may be an important part of the consumption situation. This situational factor suggests that the greater the time between consumption experiences, the more attention the consumer pays to it. Attention will be maximized whenever it is a consumer's first experience with a particular product or service. Thus, greater WOM is expected to occur whenever the consumer has his/her first experience with a product or service.

Task definition explores the reason behind a particular consumption experience (Belk 1975a). The gift-giving situation is of interest here, since it may spark conversation during consumption. The gift-giver(s) is motivated to please the recipient(s); therefore, situational involvement is heightened. Additionally, the gift-giver is likely to want feedback from the recipient concerning his/her opinion regarding the product. Finally, the receiver may have questions about the product/service which would be addressed to the giver.

INDIVIDUAL'S PERCEPTIONS OF THE CONSUMPTION EXPERIENCE

The final set of variables considered is individual's perceptions of the consumption experience. Three such factors, satisfaction, dissatisfaction and perceived novelty, are discussed below.

Satisfaction and dissatisfaction affect an individual's mood and increase the amount of WOM. In fact, much research shows that satisfaction and dissatisfaction lead to WOM after product experience (Dichter 1966; Richins 1983; Yale 1987b). Satisfaction and dissatisfaction may begin as a response to a situation (Belk 1975a) but then become part of the situation. This is possible because product consumption occurs over time, so satisfaction and dissatisfaction can occur early in the consumption experience and then influence WOM during the latter part of the consumption experience. Extreme levels of satisfaction and dissatisfaction heighten the consumer's awareness of the consumption experience and increase his/her likelihood of discussing the experience. Indeed, such discussions may reduce emotional tension created by a very pleasing or displeasing product/service (Dichter 1966).

A novel consumption experience is one that is perceived as out of the ordinary by an individual. This may be a function of the consumer's lifestyle and experiences, characteristics of the product/service, and/or the manner in which the product/service is presented. A situation which is perceived as novel will receive the consumer's attention, making product conversation more likely.

FIELD STUDY

A restaurant setting was used in this investigation since individuals often consume restaurant food in groups and the consumption experience has a clear beginning and ending. A wide variety of restaurants participated in the study ranging from fast-food chains to expensive "atmosphere" restaurants. A total of 321 people participated, representing 153 groups of restaurant patrons. Forty-three percent of the respondents were male, 72% were under the age of 45, and 46% had incomes over \$30,000.

Interviewers were instructed to approach every group of two or more individuals after they had completed their meals and ask all group members to participate in the study. Respondents were asked to complete the questionnaire individually without consulting the other group members.

Hypotheses

The following hypotheses are of interest. *The amount of WOM in a group is expected to increase:*

- H1: As the number of weak social ties among group members increases.
- H2: When a group member takes on the role of committed decision-maker.

- H3: As the number of individuals in the group who are experiencing the restaurant for the first time increases.
- H4: As the number of individuals in the group who are experiencing a particular entree in the restaurant for the first time increases.
- H5: When the consumption experience represents a gift-giving situation.
- H6: As the number of people in the group who experience extreme satisfaction increases.
- H7: As the number of people in the group who experience extreme dissatisfaction increases.
- H8: As the number of individuals in the group who perceive the consumption experience as novel increases.

Measures

Word-of-mouth. An index of the amount of WOM was developed for this study since the usual dichotomous measures could not adequately test the hypotheses. Three items measured the amount of WOM. The first was an eleven-point graphic rating scale anchored with "we did not talk about the food at all" and "we talked about the food a lot." A seven-point Likert-type item asked whether the food eaten was a large part of the mealtime conversation. Finally, a seven-point item asked how much of the table conversation dealt with the food being eaten. Responses ranged from "nothing was said about the food" to "the biggest topic of conversation was our food." These measures were standardized and summed to yield a reliable index ($\alpha=0.79$).

Social Ties. Participants indicated their social relationship with each person sitting at their table using a seven-point item. Responses ranged from "not very close--casual acquaintances" to "so close it's hard to imagine life without him/her" (Johnson and Reingen 1987).

Committed Decision Maker. This social role was measured by three items. First, participants were asked who chose the restaurant. Only respondents who indicated they had made the decision were considered for the committed decision maker role. The psychological dimension of this role was measured using two seven-point Likert-type items. The first stated, "I was very excited to bring my companions to this particular restaurant." The second stated, "I encouraged my companions to come here today because this is one of my favorite places to eat and I wanted to share this restaurant with them" ($r=0.69$).

Gift. Respondents were asked whether they were purchasing the meal as a gift for their companions.

Satisfaction/Dissatisfaction. These states were measured using two scales. The first was a seven-point delighted to terrible scale (Westbrook 1980b). The

TABLE 1
Group Variable Determination

Word-of-mouth	Average of the individual WOM scores given by group members
Social Ties	Total number of weak ties indicated by group members. Weak ties were relationships characterized as "recently met", "casual acquaintance", and "new friend"
Committed Decision Maker	At least one group member's committed decision maker score exceeded the mean committed decision maker score plus one standard deviation <i>and</i> stated that s/he decided where the group would eat
New Restaurant Patronage	Total number of group members who stated they had never eaten at the restaurant before
New Entree	Total number of group members who stated they had never eaten that entree at that restaurant before
Gift	At least one group member stated that he/she was purchasing the meal as a gift for his/her companions
High Satisfaction	Total number of group members whose satisfaction score exceeded the mean satisfaction score plus one standard deviation
Low Satisfaction	Total number of group members whose satisfaction score fell below the mean satisfaction score minus one standard deviation
Perceived Novelty	Total number of group members whose novelty score exceeded the mean novelty score plus one standard deviation

second asked respondents how satisfied they were with the food. Responses could range from 0% (not at all satisfied) to 100% (completely satisfied; Westbrook 1980a). These two items were standardized and summed ($r=0.70$).

Restaurant Patronage and Entree Purchasing Frequency. Respondents indicated how often they ate at the restaurant and how often they ordered the entree selected on six-point items. A response format ranging from "at least once or more a week" to "never before today" was used.

Perceived Novelty. Perceived novelty was measured by three seven-point Likert-type items asking whether the food was presented in a different manner than expected, whether the food was presented in an interesting or unusual manner, and whether the food was out of the ordinary for the respondent ($\alpha=0.64$).

Data Analysis

Several issues had to be addressed during data analysis. Some groups had incomplete data. Groups were only included if the majority of the members completed the questionnaire. Respondents who did not complete more than 3 items were excluded from the analysis as were individuals who did not complete all three of the WOM items. This eliminated persons who did not thoughtfully complete the questionnaire. Missing data were handled by substituting the mean

value for the missing data point. This conservative procedure may have attenuated the results since it treats an individual as average when, in fact, s/he may have possessed one of the critical characteristics. Thirty-nine groups were dropped from the analysis due to the above procedures, resulting in usable data from 114 groups.

In order to test the hypotheses, information from the individual questionnaires was combined to provide group data. Table 1 provides the rules used in determining the value of the independent group variables used in the final analysis.

Results

A regression model was used to investigate the hypotheses. The condition index for the data set was 9.27, indicating that multicollinearity is unlikely to be a problem (Belsley, Kuh and Welsh 1980). In order to control for group size, the analysis was conducted using the residual WOM scores after the effects of group size were taken into account. Hypotheses were tested using the residual group WOM score as the dependent variable and the weak ties, committed decision maker, new restaurant patron, new entree, gift, high satisfaction, low satisfaction, and distinctiveness group scores as the independent variables. The overall model was statistically significant ($F=4.54$, $p<0.01$, adjusted $R^2=0.20$). Table 2 contains the regression coefficients. (Note

TABLE 2
Regression Results

Variable	Beta	Probability
Weak Ties	-0.610	0.027
Committed Decision Maker	1.245	0.028
New Restaurant Patron	0.334	0.311
New Entree	0.380	0.172
Gift	0.229	0.538
High Satisfaction	0.615	0.029
Low Satisfaction	0.132	0.587
Perceived Novelty	0.562	0.088
R^2		0.257
Adjusted R^2		0.201

that several potential interactions were examined; however, none were statistically significant.)

The results indicate that four of the variables are significant. It appears that having (1) a committed decision maker in the group, (2) highly satisfied group members, and (3) group members who perceive the consumption experience as novel creates greater product discussion. Thus, H2, H6, and H8 are supported. The relationship between weak social ties and WOM is significant but in the opposite direction than hypothesized. Four of the independent variables are not statistically significant: (1) a new restaurant patron, (2) new entree consumed, (3) gift-giving situation, and (4) low satisfaction. Thus, H3, H4, H5, and H7 are not supported.

DISCUSSION

This field study suggests that the social environment and individuals' perceptions of the consumption experience play a role in determining the amount of product discussion during consumption, explaining 20% of the variance in WOM behavior. Additionally, it appears that WOM during consumption is a common phenomenon since more than 80% of the respondents indicated that at least one or two comments were made about the food during the meal. Given that WOM can have a strong effect on performance perceptions (Bone 1990), creating positive WOM during consumption should be an important part of a marketing strategy.

The variables found to spark WOM can be used to create positive WOM during consumption. Marketers may wish to create group consumption situations which include a committed decision maker. Many firms have "regulars" who are likely to be

psychologically committed to the establishment. Special promotions can be used to entice these customers to bring their friends and associates along as well. The finding that high satisfaction leads to greater WOM emphasizes the importance of providing quality products and services. Quality which exceeds a consumer's expectations will be rewarded by positive WOM. Finally, offering novel products via unusual presentations or unique product/service offerings can also increase the amount of WOM during consumption.

A few of the findings from the field study were surprising. Most surprising was the inverse relationship between social ties and WOM. It is possible that individuals who have weak social ties spend more time talking about each other's past experiences and interests in an effort to find common interests and to learn more about each other. On the other hand, individuals with strong ties may spend more time talking about the present since they already know so much about one another. Their conversations may focus on daily events (e.g., How was the office today? What do you want to watch on TV tonight? Do you like what you ordered?).

Also surprising is the fact that high satisfaction led to more WOM during consumption, but low satisfaction did not. One problem may be that the vast majority of the respondents in the study were relatively satisfied with the food they received. Only one subject indicated that the food was terrible and only three indicated that they were mostly dissatisfied (out of 321 respondents). Thus, even though individuals identified as dissatisfied had satisfaction scores well below the mean, it is possible that they experienced only moderate dissatisfaction.

This study reveals that WOM during product consumption is a rather common event which can be partially explained by only a handful of variables. Of course, findings may be limited to the respondent population and environments examined herein, but the study does open a variety of issues for further investigation. For instance, only a small portion of the factors which may affect WOM were investigated. Other characteristics such as the consumption atmosphere (e.g., upscale vs. downhome environments), the structure of the consumption group (e.g., family vs. business), mood states, time of day/year, and product consumption with the purpose of determining adoption of the product/service by a group may also affect the amount of WOM during consumption.

In the future, other product consumption situations should be examined. Specifically, alternative product such as movies, compact disks, sporting equipment, video games, etc. can be examined to determine how frequently conversations occur and what variables spark such conversations. In addition, we can examine product trial situations and shopping experiences to determine the frequency and content of such discussions.

Given the high levels of satisfaction reported by the respondents, it is probable that the majority of the conversations held were positive in nature. Yet, future research should examine the content of product conversations--the valence of the conversations, common themes which run through conversations, the demographic and psychological characteristics which play a role in the content of WOM, and the effect of these conversations on repurchase decisions.

In sum, this study shows that several variables (social ties, committed decision maker role, satisfaction and perceived distinctiveness) systematically influence the amount of WOM during consumption. In addition, the paper offers a multi-item measure of the amount of WOM which appears reliable. Given that WOM conversations can explain over 20% of the variance in product judgements (Bone 1990), it is clear that this topic is deserving of further research.

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Buying More than We Can Use: Factors Influencing Forecasts of Consumption Quantity

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ABSTRACT

This paper develops a process description of consumer forecasts concerning the optimal quantity of repeatedly consumed goods. The case where limited availability necessitates a forecast over an unusually long time period is of particular interest. It is hypothesized that extension of the forecast period will induce upward bias in quantity forecasts. It is further hypothesized that reliance upon current preferences in the absence of the ability to predict future preferences is a primary factor underlying this bias. The roles of confidence in current preferences, of safety stock, and of forecast heuristics are also discussed.

There has been recent interest in individuals' ability (or lack of ability) to understand their own preferences. For instance, theoretical (March 1978) and empirical (Kahneman and Snell 1990; Varey and Kahneman In press) work suggests that people are unable to accurately predict their future preferences. The related issue to be discussed in this paper is how, and with what degree of accuracy, individuals forecast their utility maximizing purchase quantity. Little work has been done to date investigating the processes by which individuals decide *how much* of a good to buy. Instead, research has concentrated on the manner in which consumers decide *what* to buy. However, the quantity decision is a very important part of the purchase process. Many sellers, notably those handling food and clothing, rely on consumers to make large, repeat purchases. Therefore, encouraging multiple purchases is often one of the seller's major goals. The quantity forecasting issue will be examined primarily within a special case. This case is that of a relatively long forecast period caused by limited availability of the good under consideration.

It may seem that the quantity decision made during any particular shopping trip is unimportant; one may simply correct a suboptimal quantity decision on the following trip. This would be true if consumption rate were exogenous to inventory level. However, there is some evidence that consumption rate is a function of inventory level (Folkes, Gupta, and Martin 1991). This indicates that each quantity decision may play a role in the determination of total consumption.

It seems that forecasts of consumption quantity will generally display upward bias, especially when limited product availability extends the forecast period. Several cognitive processes which may contribute to this effect are discussed below. This paper does *not* discuss the effect of limited availability upon preferences, and, therefore, upon *optimal* purchase quantity. The enhancing effect of limited availability upon preferences is important, but has been well documented elsewhere (e.g., "the rule of the few," in Cialdini 1985). Instead, this paper concerns

the effects of scarcity upon consumption forecasts *holding preferences constant*.

There is anecdotal evidence for the hypothesis that limited availability results in higher forecasts of consumption quantity. The Wall Street Journal reports that Warner-Lambert Co. enjoyed an impressive sales increase in three flavors of gum once the company limited their availability to two months a year. Sales rose from \$3.2 million in 1986 to \$10.5 million in 1988. Pam Goyette, a Warner-Lambert senior product manager, attributes this success to the fact that consumers "really load up" on the gums as a result of their limited availability (Alsop 1989, p.B1).

There is also intuitive appeal to the notion that limited availability will produce overestimation of one's optimal consumption amount. In general, it seems that people overestimate when consumption forecasts are necessary. The cognitive processes and biases which are investigated below seem to produce a behavioral theme of unfounded optimism concerning one's enjoyment of any item under consideration. Further, this optimism seems to be accentuated when forecasts of optimal quantity must be made in advance. We tend to take more food than we can possibly eat when later access to the buffet table is limited. We consistently forget that we will be tired after the first week of vacation. We do not realize that we will not wear the clearance shoes that we buy in three colors.

Implications resulting from this work will generalize to two classes of marketing situation. First, this analysis is directly relevant to the case of limited product availability. Some consumer items are routinely offered on a restricted basis. For example, many clothing products are available for only one season. Food items, such as beer and candy, are commonly offered seasonally or in limited editions. Many collectibles are offered "for a limited time only." Exclusive distribution restricts a good's availability for consumers who live far from a store which carries the good. Tourist items are of limited availability to the traveler. Any insights as to how consumers make quantity decisions under limited availability should aid marketers of the above product classes. Likewise, this theoretical development provides a rationale for the somewhat counter-intuitive practice of making one's products difficult to obtain.

The second, and more common, case to which these ideas apply is that of sale items. Most products are constantly available, but are periodically available at a sale price. Sales may induce customers to estimate optimal consumption levels over relatively long time periods. In fact, some consumers refrain from buying certain items unless those items are on sale. Thus, periodic sales may cause the consumer to behave as if an item is not continually available. The ideas in this paper may, therefore, be valuable to marketers who use price discounts as a promotional tool. This paper

provides a rationale, beyond inducement of trial or switching, for the offering of periodic price discounts.

What follows is a discussion of several processes which may contribute to bias in the forecasting of consumption quantities. The bulk of this paper discusses a process by which difficulty in forecasting preferences may cause biased quantity forecasts. Additional, complementary processes and biases are also discussed. The major goal of this paper is to apply knowledge concerning cognitive functioning to a relatively ignored problem in consumer research.

PROCESSES INVOLVED IN FORECASTING QUANTITY

Forecasting Preference

Previous Research. It seems that forecasting one's future preferences is a difficult task. March (1978) theorizes that future preferences are fuzzy and capricious. Therefore, he states, decisions concerning future outcomes must reflect guesses, not certainty, about one's preferences for these outcomes. Furthermore, he hypothesizes that current theories of choice, which do not acknowledge irregularities in preference, are inadequate for the description of human decision making.

Kahneman and his colleagues (Kahneman and Snell 1990; Varey and Kahneman In press) offer experimental evidence indicating that individuals cannot accurately predict their own preferences. For instance, subjects in Kahneman and Snell's (1990) experiments were asked to predict, after an initial sampling, their own preference fluctuations during repeated exposures, over several successive days, to food and music. Correlations between actual and predicted changes in tastes were minimal, even for this relatively simple preference forecasting task.

Further, subjects do not consistently incorporate information about fluctuations in the quality of a class of experiences into decisions concerning these experiences. Kahneman and his colleagues demonstrate that subjects choose risk seeking alternatives when deciding among probabilistic strings of increasingly unpleasant experiences. Risk seeking decisions are inconsistent with the increasing marginal disutility reported by the majority of these same subjects. For instance, subjects did *not* consistently prefer a probabilistic (in the number of treatments necessary) medical treatment which offered a reduction from ten to eight treatments for one outcome in exchange for an (equally probable) increase from two to four treatments for another outcome. However, the same subjects indicated that treatment side effects would worsen with time, implying that the reduction from ten to eight is more "valuable" than the reduction from four to two (Kahneman and Snell 1990; Varey and Kahneman In press). Varey and Kahneman (In press) conclude that "responses to questions eliciting intuitions about global utilities [for a series of experiences] are unaffected by people's beliefs about the changes in the experience over time" (p.19).

Why might people be insensitive to trends in a series of hedonic experiences? Kahneman and Snell (1990) hypothesize that people commonly fail to conduct separate evaluations of each experience. They propose that individuals simplify decisions by using an "instantaneous representation" to evaluate temporally separated sets of outcomes. An instantaneous representation is simply a projection of the relevant time period onto a single moment. Consultation of the instantaneous representation results in neglect of the unique aspects of each experience. For example, instead of integrating the predicted utility of each of a set of experiences, people may use "news utility" as a simplification allowing evaluation of the set. News utility consists of the individual's prediction of his own emotional reaction to learning that he will undergo the experiences in question (Kahneman and Snell 1990). To foreshadow, it seems that news utility will be evaluated against current preferences. For instance, it seems that the news that one will consume three chocolate bars in the future will be less favorably evaluated if one has just consumed two.

Preference Forecasting. The above theoretical development may be directly applied to the quantity forecasting process. To make optimal quantity decisions, the consumer must consider the hedonic quality of several, temporally separated, consumption experiences. Each consumption experience will likely be unique due to preference fluctuations. The empirical work discussed above indicates that the consumer will be unable to accurately incorporate these preference fluctuations into her decision. Instead, she may collapse the forecast period and use one measure of preference. This will most likely be current preference since evidence suggests that people cannot estimate future preferences very well. In other words, current preference may be used to represent preferences throughout the forecast period.

Quantity forecasts, therefore, will be biased to the extent that current preference is not representative of future preference. Hence, one must investigate the likely nature of preference fluctuations in order to determine the nature of the bias, if any, induced by reliance upon current preferences. McAlister (1982) offers a useful model of preference fluctuation. She proposes that individuals hold inventories of recently consumed attributes (such as "fruit flavor") and that preference is inversely related to inventory levels. In her model, attribute inventories continually deplete, with individual- and attribute-specific parameters determining the depletion rate. Preference is at its highest when attribute inventories are at their lowest. Preferences continually fluctuate, lowering with consumption and then gradually rising. Satiation, or the degree to which a preference deviates from its highest level, is included in current preferences to the extent that the relevant attributes have been recently consumed.

The work of Kahneman and his colleagues (Kahneman and Snell 1990; Varey and Kahneman In press) suggests that satiation will only affect the preference forecast process to the extent that current preferences are moderated by satiation. Absence of

recent consumption, and therefore absence of satiation, is almost guaranteed at the beginning of a restricted availability period. Obviously, an individual cannot consume a good which is not available. Preferences throughout the forecast period will, however, be moderated by consumption. Therefore, with limited availability, preferences during purchase are very likely to be higher than average preferences over the forecast period. If these abnormally high preferences are used as a proxy for preferences during the forecast period, upwardly biased quantity forecasts should result.

The likely level of preferences at the time of purchase is less certain with sale items. However, if the individual buys more than he normally would because an item is on sale, and consumption elevates as a result, preferences over the period should be more moderated by satiation than are preferences at the time of purchase. This implies that the manager should allow time for inventories (real and, hence, attribute inventories) to become depleted between sales. Further, it implies that a strategy of restricting availability will work best for distinctive goods. Otherwise, attribute inventories may be maintained by consumption of similar goods.

In general, abnormally high preferences at the beginning of an availability period should result in overestimation of the average hedonic quality of consumption of the good in question. Thus, the following is proposed:

P1a: Consumers will rely on current preference as a proxy for preferences throughout the consumption period when determining purchase quantity.

P1b: Forecasts of optimal consumption quantities will become upwardly biased as the time horizon of forecast is extended.

The above analysis implies that the individual generally cannot adequately forecast satiation or incorporate anticipated satiation into his forecasts. This hypothesis follows from the empirical work of Kahneman, Snell, and Varey. Of course, this does not imply that satiation can never be anticipated. An individual may eventually learn to recognize that she typically overestimates preference for a certain item; this seems most likely with frequently purchased items. However, the difficulty individuals display in predicting preferences should preclude the general finding of accuracy in predicting satiation. This is, of course, an empirical question:

P2a: Individuals will not adequately consider satiation when making consumption forecasts.

Although it may be impossible for the individual to incorporate satiation into her quantity forecast, manipulation of attribute inventory levels should alter preferences, affecting quantity forecasts:

P2b: Forecasted quantity will decrease with recent consumption of the item under consideration.

The Role of Certainty. Subjective certainty in one's current preference may contribute to bias in quantity forecasts. Certainty is not typically correlated with accuracy in decision making, with overconfidence being the norm (e.g., Lichtenstein, Fischhoff, and Phillips 1982). Recent evidence suggests that overconfidence is caused by people's tendencies to overweight the strength or extremeness of evidence relative to its weight or credence (Tversky and Griffin In press). Individuals tend towards overconfidence in decisions when the evidence upon which they are deciding has high strength but low weight. For instance, an extreme proportion (high strength) based upon a small sample (low weight) may produce overconfidence. Extreme preferences are high in strength but low in weight; they are noticeable, like the extreme proportion, but unreliable, like the small sample. Thus, a high preference level may actually *cause* overconfidence. Subjective certainty may, therefore, operate to exacerbate bias from reliance upon abnormally high current preferences. (Of course, this overconfidence may also operate on abnormally low preferences, but in this case the individual will simply not buy the good in question.)

P3a: Individuals should show a significant, positive correlation between preference level and certainty.

P3b: Individuals should show an insignificant correlation between certainty and accuracy when forecasting quantities.

Thus far, we have discussed cognitive processes which may cause individuals to *inadvertently* buy more than their optimal amount of a good. Other cognitive mechanisms may cause individuals to *intentionally* buy more than they believe is optimal. This possibility is discussed below.

Purchases Above Forecasted Optimality: Safety Stock

One could conceptualize the task of forecasting optimal quantity as an inventory problem. A possible contributor to large quantity forecasts, evident from the inventory framework, is the purchase of excess inventory or safety stock. These are simply items purchased, in addition to the quantity forecasted as optimal, in order to lower the risk of a stockout. Both normative solutions to inventory problems (i.e., the newsboy problem) and intuition dictate that safety stock depends upon the costs of overestimation and underestimation of optimal quantity. The individual should buy exactly the forecasted amount if both costs are equal. As underestimation of optimal quantity becomes relatively more costly, the individual should purchase increasing amounts of safety stock.

The human value function is such that the perceived cost of underestimating consumption may consistently dominate that of overestimating. People

tend to value the disutility associated with goods of which they are deprived more highly (i.e., against a steeper value function) than they value the disutility of forfeiting the purchase price of those same goods. In general, goods of which one is deprived are valued as a loss while money spent on goods is not, and value functions are typically steeper for losses than for gains (e.g., Tversky and Kahneman *In press*). Even *anticipated* consumption is thought to shift the individual's reference point, so that not having an anticipated item will be valued as a loss (e.g., Hoch and Loewenstein 1990). Thus, people may evaluate the cost of having one too few of the item under consideration by a steeper disutility function than that by which they will evaluate the cost of buying one unnecessary item. If so, the cost of underestimating consumption will routinely dominate the cost of overestimating consumption. Hence, the consumer will be prone to consistently buy at a level above his forecasted optimal quantity.

Forecasting Consumption Opportunities

This section will briefly discuss a second estimate which must be made before purchase quantity can be determined. Specifically, the individual must forecast the number of opportunities he will have to use the product class in question. Note that this forecast is very likely made simultaneously with one's preference forecast; the processes are separated for clarity. The general form of the heuristic used to forecast consumption opportunities may influence the amount of bias in one's final quantity forecast. An estimate of consumption opportunity must, in general, be based upon either a rate or a whole number. When using a rate-based strategy, the individual may be less likely to consider satiation because the focus is upon "one-at-a-time" (i.e., once a day) consumption. Therefore, bias should generally be at its worst when this form of heuristic is utilized. Alternatively, a holistic (i.e., based upon determination of a total number of opportunities) heuristic seems likely to cause the decision maker to focus on a large amount (i.e., 30 items monthly) of consumption. Therefore, satiation seems more likely to become salient. Use of a holistic heuristic may therefore lead to moderation of the proposed bias.

- P4: Forecasted consumption quantity will be larger with a rate-based heuristic than with a holistic heuristic.

It would be helpful to determine factors influencing the type of forecasting heuristic which is used. Some related research, involving estimates of past behavior, exists (e.g., Blair and Burton 1987). For instance, there is some suggestion that a (holistic) "recall and count" strategy is less likely, and a rate-based strategy is more likely, as the estimation period is extended (Blair and Burton 1987). Thus, rate-based strategies may be more likely once the forecast period is extended. This may be yet another contributor to the expected upward bias in quantity forecasts with lengthened forecast periods.

However, several factors unrelated to the length of the forecast period may influence what sort of heuristic is adopted. The heuristic may be influenced by a firm. For instance, some forms of packaging (i.e., soda in separate cans) may promote a rate-based heuristic, while others (i.e., two liter bottles) may promote a holistic heuristic. Other factors, such as experience with the product class, may influence which heuristic is chosen and may also directly influence the magnitude of the bias observed. For instance, experienced users of a product class may be more likely to use a rate-based heuristic, but, due to their experience, they may also be less likely to arrive upon a biased forecast. Thus, the relationship between rate-based heuristics and forecasting bias may be attenuated by the effects of factors such as experience.

CONCLUSION

This paper begins investigation of a problem which has been neglected by consumer researchers, namely the manner in which a consumer forecasts optimal purchase quantity for a repeatedly consumed good. This paper has further focused upon the special case of limited product availability. However, some of the factors discussed above may impact quantity forecasts of goods which are of unlimited availability. For instance, individuals may have a general propensity to purchase safety stock. Thus, the process description offered above may apply to more than just this special case.

Research promoting understanding of the forecast process could have detrimental as well as beneficial effects on the consumer. It almost certainly is just as easy to "help" the consumer add bias to his estimates as it is to help the consumer remove this bias. However, future research efforts may uncover or develop techniques for avoiding overestimation of purchase quantities. For example, consumers may reduce bias in their forecasting decisions by variety seeking. It may simply be easier to generally restrict oneself from buying too much of one thing than it is to make accurate forecasting decisions. An individual may learn to curtail his tendency to overestimate optimal quantity by developing variety seeking rules.

Finally, note that the specific processes and events described above may operate in a complementary- or a contradictory- manner. Returning to our Warner-Lambert gum example, several processes may have combined to create the observed sales increase. Consumers' preferences may become enhanced with limited availability; perhaps the gum is now seen as a novelty item. Deficits in forecasting satiation with the gums' distinctive flavors may occur, leading to upwardly biased forecasts of preference over the forecast period. The cost of underestimation of consumption is likely to dominate that of overestimation, so that individuals purchase safety stock. Finally, individuals may tend to overestimate the possible opportunities for chewing gum. For instance, one may use a rate-based heuristic and forget to adjust downward for occasions when gum chewing is not appropriate.

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When Are Higher Social Class Consumers More and Less Brand Loyal Than Lower Social Class Consumers?: The Role of Mediating Variables

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In this study we investigated the extent to which perceived risk mediates the influence of social class and purchase experience on brand loyalty. We found that the relationship between social class and brand loyalty is far more complex than previously thought. This study's results indicate that depending on the mediating variables and causal paths involved, brand loyalty can both increase and decrease with social class.

INTRODUCTION

Soon after Brown (1952) first published his findings on brand loyalty, researchers quickly identified its theoretical and managerial importance. Investigators realized that since brand loyalty (the repeated acquisition of a brand because of a distinct preference for it (Jacoby and Chestnut 1978)), or its absence, represented the final outcome of consumers' decision processes, it was seminal to understanding consumer behavior. And brand loyalty's managerial importance was indelibly established when researchers found that loyal customers account for most of a brand's sales (McConnell 1968).

Because brand loyalty is so central to consumer behavior and a brand's profitability, much research has been conducted on identifying the environmental (e.g., marketing) and individual factors that influence the amount or level of brand loyalty consumers develop towards brands. Thus, researchers have investigated the influence of individual factors such as social class (e.g., Carman 1970), demographic characteristics (e.g., Prasad 1975), personality (e.g., Carman 1970), prior experience (e.g., Tucker 1964), and perceived risk (e.g., Roselius 1971) on brand loyalty. In a similar vein, researchers have also examined the influence of environmental variables such as perceived product quality (McConnell 1968), price activity levels, and the number of brands available (Farley 1964), on consumer brand loyalty.

Of all these influences, one factor--perceived risk--seems to consistently influence brand loyalty across diverse products and consumer populations (e.g., Derbaix 1983; Sheth and Venkatesan 1968). Thus perceived risk has been found to influence brand loyalty or choice for disparate products and services such as drugs (Bearden and Mason 1978), consumer goods outlets (Prasad 1975), fabric softeners, laundry detergents, coffee, ice cream (Dunn, Murphy, and Skelly 1986), and automobiles (Peter and Ryan 1976). However, even more impressively, perceived risk has also been shown to influence brand loyalty across diverse consumer groups. For instance, despite the general paucity of cross cultural research (Albaum and Peterson 1984), perceived risk has been shown to influence brand loyalty in culturally and economically heterogeneous countries such as Mexico (Hoover, Green, and Saegert 1978), and India (Kanwar 1989), in addition to the U.S.

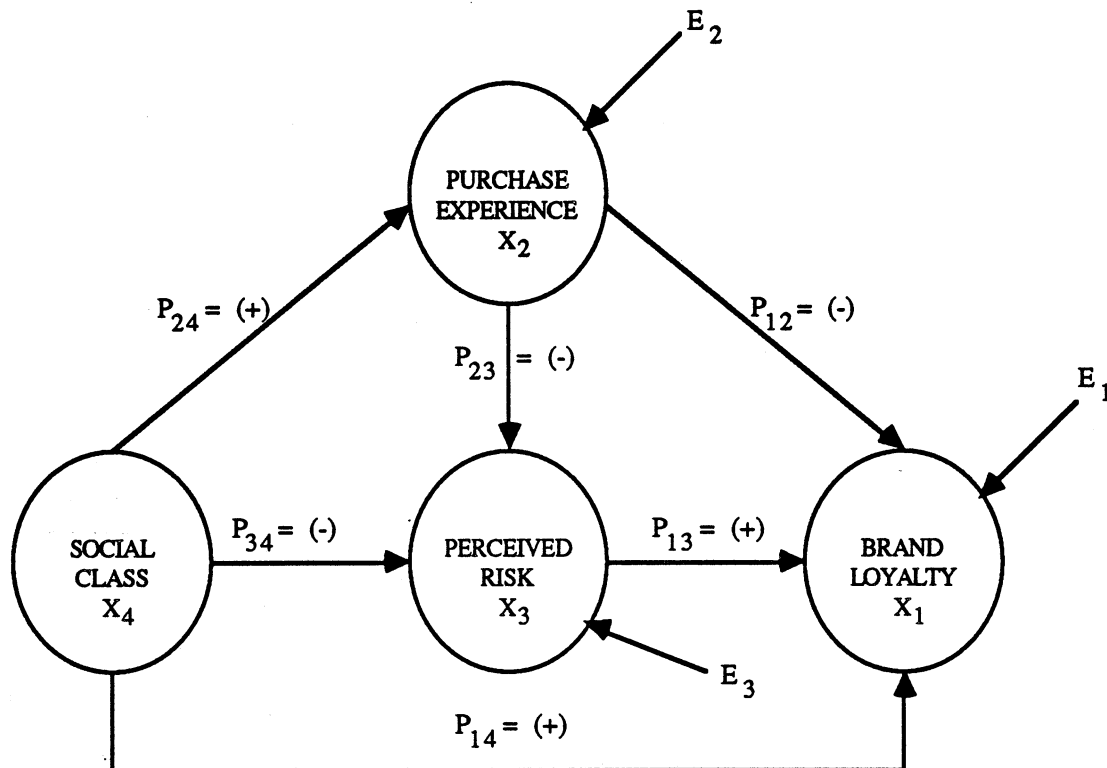
In fact, because perceived risk influences important consumer behaviors beyond brand loyalty, it has emerged as a significant aspect of consumer behavior in its own right. For instance, perceived risk has been shown to influence consumers' store choices (e.g., Potter and Coshall 1985), information search behaviors and information sources (e.g., Garner and Thompson 1986), new product adoption (e.g., Popielarz 1967), and involvement levels with products and decisions (e.g., Laurent and Kapferer 1985). Consequently, just like for brand loyalty, much research has been conducted on the factors that influence consumer risk perception levels. Thus substantial research has been conducted on exploring the influence of such individual and environmental factors as social class (Dash, Schiffman, and Berenson 1976), demographic characteristics (Schiffman 1972), personality (Schaninger 1976), product experience (McConnell 1968), and nature of the product (Dunn, Murphy and Skelly 1986), on risk perception. However, as prior discussion shows, many of the same factors have also been used in research on the factors that influence brand loyalty. For example, Schaninger (1976) and Carman (1970) investigated the influence of personality on perceived risk and brand loyalty respectively.

Thus, this extant research consists of three streams (i) the perceived risk-brand loyalty relationship, (ii) the influence of individual and environmental factors on brand loyalty, and (iii) the influence of individual and environmental factors on perceived risk. But, this research has ignored a related issue. To what extent does perceived risk mediate the influence of individual and environmental factors on brand loyalty? For example, we know that social class influences perceived risk as well as brand loyalty, and that perceived risk influences brand loyalty (e.g., Carman 1970; Chance and French 1972; Dash, Schiffman, and Berenson, 1976; Sheth and Venkatesan 1968). But, we do not know the extent to which perceived risk mediates the influence of social class on brand loyalty.

Thus, in general, in this study we are interested in determining the extent to which perceived risk mediates the influence of individual or environmental factors on brand loyalty. In specific, as Figure 1 shows, this study investigates the extent to which perceived risk mediates the influence of social class and purchase experience on brand loyalty.

We chose to investigate the affects of these two individual variables because of their theoretical and managerial importance. For instance, because social class and purchase experience influence a variety of important consumer behaviors (other than brand loyalty and perceived risk), such as shopping behavior, information search, store choice, and media exposure (see Rich and Jain 1968), they are among the

FIGURE 1
Hypothesized Causal Model and Associated Structural Equations



$$\begin{aligned}
 X_1 &= P_{12} \cdot X_2 + P_{13} \cdot X_3 + P_{14} \cdot X_4 + E_1 \\
 X_2 &= P_{24} \cdot X_4 + E_2 \\
 X_3 &= P_{23} \cdot X_2 + P_{34} \cdot X_4 + E_3 \\
 X_1 &= E_4
 \end{aligned}$$

Where E_1 , E_2 , E_3 , and E_4 are the latent variables and X_1 , X_2 , X_3 , and X_4 are the standardized observed variables.

most powerful methods of segmenting markets (e.g., Myers, Stanton, and Haug 1971; Schaninger 1981).

HYPOTHESES

As we discussed above, the purpose of this study is to explore the extent to which perceived risk mediates the influence of social class and purchase experience, on brand loyalty. As we mentioned before, brand loyalty increases with perceived risk (e.g., Roselius 1971; Sheth and Venkatesan 1968). That is, as perceived risk increases, consumers minimize or reduce the probability of, financial, social, or other losses by repurchasing products that they know perform satisfactorily. We could thus conclude that since the higher social classes perceive less risk (Dash, Schiffman, and Berenson 1976), they should also be less brand loyal than consumers who belong to the lower socioeconomic groups. But, research results do not support this conclusion. For example, Carman (1970) and Chance and French (1972) found that consumers from the higher social classes were more brand loyal than consumers from the

lower social classes. We thus have seemingly contradictory findings.

In fact, some other research too suggests that consumers from the higher social classes should be less brand loyal than consumers from the lower social classes. As Bell (1964) and Hayes (1959) suggest, consumers from the higher social classes have a higher tolerance for risk (and may in fact seek out risk), than consumers from the lower social classes. Thus, because of their tolerance for risk, the higher social classes should be less brand loyal than consumers from the lower social classes. But, again, other research suggests that because the lower social classes are usually more concerned about preserving limited resources, they are more likely to switch brands than higher social class consumers (Dash, Schiffman, and Berenson, 1976). That is, because of a need to preserve resources, consumers from the lower social classes are less likely to be brand loyal than consumers from the higher social classes. Consequently, there seem to be competing and contradictory hypotheses regarding the relationship

between social class and brand loyalty. However, as we discuss below, it may be possible to resolve this contradiction, by assuming that social class has several separate and contradictory influences on brand loyalty.

First, because measures of social class often include financial resources (see Ellis 1975), there is what we could call the direct affect of social class on brand loyalty (P_{14} in Figure 1). As we mentioned above, Dash, Schiffman, and Berenson (1976) suggested that consumers from the lower social classes are likely to switch brands when doing so helps them conserve resources. That is, social class should be positively related to brand loyalty. But, social class also has a second, indirect, affect on brand loyalty that is mediated by perceived risk.

As we mentioned earlier, people who belong to the higher social classes not only have a higher tolerance for risk (often seeking out risk), but because they are also more self-confident, they tend to perceive less risk than their counterparts from the lower social classes (Bell 1964; Hayes 1959; Prasad 1975). That is, if we consider the path:

social class → perceived risk → brand loyalty

in Figure 1, social class should be inversely related to perceived risk (i.e., a negative P_{34}), while brand loyalty should of course increase with perceived risk (i.e., a positive P_{13}). Thus, the net impact of social class on brand loyalty, through perceived risk, should be negative ($P_{34} \times P_{13}$), resulting in two related hypotheses regarding the affects of social class on brand loyalty. First:

H(1): In the causal diagram shown in Figure 1, when we consider the direct path between social class and brand loyalty, indicated by P_{14} , brand loyalty should increase with social class (that is, P_{14} should be positive).

and second,

H(2): When we consider the causal path social class → perceived risk → brand loyalty in Figure 1, brand loyalty should decline with increases in social class (that is $P_{34} \times P_{13}$ should be negative), since perceived risk should decline as social class increases (a negative P_{34}), while brand loyalty increases as perceived risk increases (a positive P_{13}).

However, in addition to the above affects of social class, we are hypothesizing that social class has two other indirect affects on brand loyalty that are mediated by purchase experience. Research indicates that consumers who belong to the higher social classes not only consume a wider variety of products and services, than lower social class consumers (Myers, Stanton, and Haug 1971; Schaninger 1981),

but that they use or buy these products more often too (Hirisch and Peters 1974). Consequently, people who belong to the higher social classes are much more experienced as consumers than people from the lower social classes. Because of this greater breadth and depth of purchase experience, the higher class consumers should possess highly developed consumer and decision-making skills that enable them to make consumption decisions, and evaluate products and marketing communications, with confidence and relatively little risk. They should, therefore, both perceive less risk, and also be more willing to switch brands, than consumers from the lower social classes. In other words, both perceived risk and brand loyalty should decrease with experience. However, since purchase experience increases with social class, we are hypothesizing that when we consider the two paths:

social class → purchase → perceived risk → brand
experience experience loyalty

and,

social class → purchase experience → brand loyalty

in Figure 1, brand loyalty should decline as social class increases because:

H(3): As purchase experience increases, both the amount of perceived risk and brand loyalty should decline (negative P_{23} and P_{12}). Thus, the overall impact of social class on brand loyalty along the two paths should also be negative (both " $P_{24} \times P_{12}$ " and " $P_{24} \times P_{23} \times P_{13}$ " should be negative), since purchase experience increases with social class, and brand loyalty increases with perceived risk (both P_{24} and P_{13} are positive).

METHODOLOGY

In order to test our hypotheses, we conducted a study with Asian Indian women. As we briefly indicated earlier, most consumer behavior studies have been conducted with U.S. consumers (Albaum and Peterson 1984). Consequently there is a great need for cross-cultural research that replicates and extends the results of studies conducted with U.S. consumers, to other cultures and economies. Conducting this study with women from India makes just such a contribution. But, such a strategy carries the risk that the study's results may be culturally driven. Although possible, we feel that such concerns are at least somewhat ameliorated by a variety of factors. First, as mentioned earlier, prior research found that perceived risk produces similar consumption behaviors across diverse cultures and economies, including India (Hoover, Green, and Saegert 1978; Kanwar 1989), somewhat alleviating the concern that this study's results may be culturally driven. In addition, as Figure 1 shows, our causal model includes, indeed builds on and extends, some previously established

relationships (e.g., the perceived risk-brand loyalty relationship). Thus, we can test whether our study replicates these established relationships. If it does, we would have added confidence that this study's results are not culturally driven. And, we would have also made an incremental contribution towards establishing the cross-cultural validity of prior findings related to perceived risk, and meeting the need for more cross-cultural research.

Sample

Altogether 222 women, residing in a major city in Southern India were used as subjects in this study. A two-stage sampling plan was used to select these women. In order to recruit women from the middle and upper social classes, we randomly selected three residential areas where middle and upper middle class families were known to reside in the city of interest. Then residential maps of these three areas were used to randomly select 150 single family homes for participation in the study. One of three women investigators then visited each home, and administered the questionnaire used in the study to the "lady of the house." If the "lady of the house" was not available, up to two call backs were made to contact the selected respondent. Because of the high call back rate, the non-response rate was only 4%, resulting in the final sample of 144 women from these areas.

Exactly the same procedure was used to recruit women belonging to the lower social classes, except that these women were recruited from two randomly chosen lower social class residential areas. Although we had randomly chosen ninety single family homes, from these areas for participation in the study, only seventy-eight of these women participated in this study because of the slightly higher refusal rate in these areas.

Respondent Characteristics

The average middle and upper social class woman was married (98%), 36 years old, and had two children. Ninety-six percent had completed high school, and 81% had undergraduate or higher degrees (in comparison the country's literacy rate is 36%). However, only 11% of the women worked outside the home, 89% classifying themselves as housewives. The average family income was about \$2400 per year, as compared to the national average household income of about \$1200. Thus, as desired, the women in the sample belonged to India's middle and higher social classes, with higher than average education and incomes.

In contrast the average woman from the lower social classes was 35 years old, married, and had 2.4 children. Not only did a much lower proportion have undergraduate degrees, but the average family income of \$1250 was almost half that of the higher social classes. Less than 10% worked outside the home, more than 90% classifying themselves as housewives.

Procedures

Each subject answered an interviewer administered questionnaire designed to measure demographic characteristics and perceived risk for

twenty non-durable consumer product categories such as personal care products (e.g., hair removers), over-the-counter drugs (e.g., headache remedies), and household and food products (e.g., detergents and instant coffee).

Perceived risk for these product categories was measured with scales similar to those used by other researchers (e.g., Dean, Engel, and Talarzyk 1972). Two five-point scales were used. Although four-point scales have been more commonly used to measure perceived risk (e.g., Dean, Engel, and Talarzyk 1972; Hoover, Green, and Saegert 1978), five-point scales were used in this study because pretests indicated that these were more suitable, than the four-point scales, for Indian consumers. The first scale measured the degree of perceived similarity between brands in each product category (1 = very similar, 5 = not at all similar). The second scale measured the amount of risk the consumer associated with trying new products in each product category (1 = no chance at all, 5 = very high chance). The scores on the two scales were then summed to produce the amount of risk each subject perceived for each product category. In addition, we used a similar five point scale to measure brand loyalty towards each product category, requesting consumers to estimate the likelihood that they would try brands that they had not tried before. Since subjects only responded to the perceived risk and brand loyalty scales for the products that they used, we then constructed mean indices of perceived risk and brand loyalty for each subject by averaging across these scales for the products respondents used.

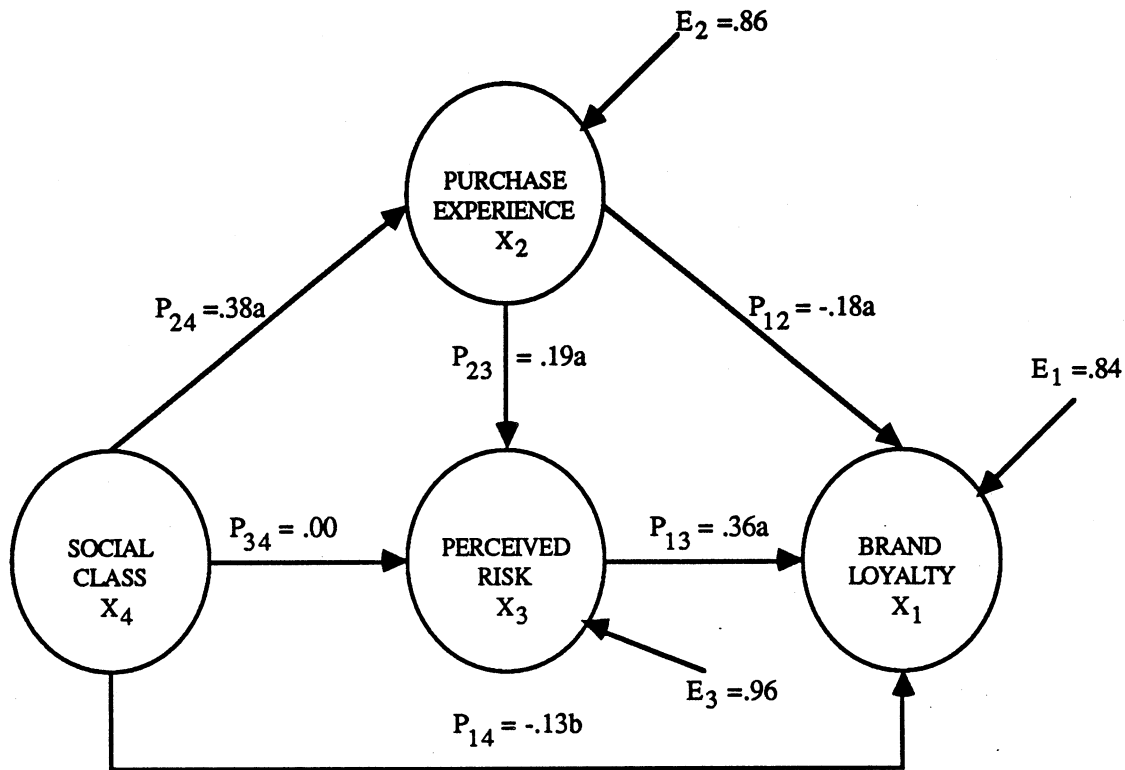
We also computed an index of social class for each respondent by summing the scores on two four point scales measuring each housewives level of education, and the family's income. Although previous research has generally included occupation with income and education to produce indices of social class (Ellis 1975), we did not include occupation in our index because our sample consisted of women, who usually do not work outside the home in India (as shown by the high percentage of the women in the sample who considered themselves housewives).

Finally, we counted the number of different products each woman used, and used this count as an indicant of the breadth of each consumers' purchase experience.

RESULTS

As discussed earlier, we had hypothesized that the direct influence of social class on brand loyalty would be positive, but that the indirect affect, mediated by perceived risk, would be negative. That is, P_{14} would be significant and positive, but that P_{34} would be negative while P_{13} was positive, so that the overall impact of social class on brand loyalty would be negative ($P_{34} \times P_{13}$). We had also hypothesized that while consumers purchase experience would increase with social class (a positive P_{34}), consumers perceived risk and brand loyalty would decrease with increasing purchase experience (negative P_{23} and P_{12}), so that the overall influence of social class on

FIGURE 2
Solutions of the Structural Equations and Causal Model Shown in Figure 1



a. Significant at $p < .01$
b. Significant at $p < .10$

brand loyalty, that was mediated by perceived risk and purchase experience, would be negative.

We tested these hypotheses by using regression analyses to solve the structural equations shown in Figure 1. Figure 2 presents the results we obtained when we solved these equations.

We had earlier expressed our concern that because this study was conducted with Asian Indian women, its results could be culturally driven. As we had then mentioned, such concerns would be somewhat reduced if our study replicated previously established findings. As Figure 2 shows, our study clearly does so.

First, like previous researchers (Hirisch and Peters 1974; Myers, Stanton, and Haug 1971; Schaninger 1981) we too found that consumer purchase experience increased with social class ($P_{24} = .38, p < .01$). That is, just like in the U.S., Indian consumers who belong to the higher social classes consume a wider variety of products, than consumers from the lower social classes. Similarly, as expected, we also found that perceived risk was positively related to brand loyalty ($P_{13} = .36, p < .01$). That is, just like U.S. consumers, Indian consumers too use

brand loyalty as a method of reducing risk. Thus, since our study replicates both these established relationships, we can be at least somewhat confident that the results and test of hypotheses we report below, are not culturally bound.

As figure 2 shows, our hypotheses were only partially supported. Contrary to expectations, social class only influences perceived risk indirectly. When purchase experience is included in the causal model, social class does not directly influence perceived risk ($P_{34} = 0$). However, we did find that social class had a significant affect on perceived risk, that is mediated by purchase experience ($P_{24} \times P_{23}$). Although contrary to expectations, this relationship was positive rather than negative, that is perceived risk increased with social class, it does suggest that prior research (e.g., Dash, Schiffman, and Berenson 1976), may have overlooked the mechanisms thorough which social class influences risk perception.

Second, and perhaps more important, we found that social class had both positive and negative influences on brand loyalty. For example, we found that as expected, people who are highly experienced consumers are less likely to be brand loyal than

consumers with lower levels of purchase experience ($P_{12} = -.18, p < .01$). Consequently, since purchase experience increases with social class, the overall affect of social class on brand loyalty is negative ($P_{24} \times -P_{12}$). That is, when one considers the causal path:

social class → purchase experience → brand loyalty

brand loyalty decreases as social class increases. People from the lower social class are likely to be more brand loyal than people from the higher social classes. Similarly, although only marginally significant ($P_{14} = -.13, p < .10$) it also seems that when no mediating variables are involved, brand loyalty decreases as social class increases. Perhaps factors such as higher education act to reduce brand loyalty. Because well-read or educated consumers are less likely to be influenced by marketing communications (Levy 1966), consumers from the higher social classes may perceive fewer differences between brands, and are thus more willing to switch brands than lower class consumers.

However, if we consider the causal path:

social class → purchase experience → perceived risk → brand loyalty

it seems that brand loyalty increases with social class, since the sequential relationships between these variables are all positive (P_{24}, P_{23}, P_{13} , are all positive). Thus it seems that depending on the causal path or intervening variables involved, like we had expected, social class had both negative and positive influences on brand loyalty.

Finally, we should also mention here that our finding that perceived risk increases with purchase experience was contrary to expectations. Perhaps, as purchase and product experience increase, consumers perceive greater and greater differences between brands and products, increasing their level of perceived risk. However, only future studies can test the validity of this explanation, since our study does not have the data to allow such a test.

CONCLUSION

Our findings indicate that the influence of social class on brand loyalty is far more complex than previously thought, perhaps explaining the often inconsistent results of previous studies. For instance, as we had discussed earlier, some studies have indicated that perceived risk decreases as social class increases (Dash, Schiffman, and Berenson 1976). Since brand loyalty is high when perceived risk is high, these results suggest that consumers from the higher social classes should be less brand loyal than consumers belonging to the lower social classes. But, studies that directly investigated the relationship between social class and brand loyalty did not support this conclusion. For example, Carman (1970) and Chance and French (1972) found that brand loyalty increased with social class. Our results seem to explain these inconsistent findings. The relationship between social class and brand loyalty is far more complex

than previously thought. Because of intervening or mediating variable such as purchase experience, and perceived risk, both positive and negative relationships between the two variables are possible.

This study's results also indicate that current understanding of the relationship between social class and perceived risk may be oversimplified. The relationship between these two variables seems to be entirely explained by intervening variables such as purchase experience. When this variable is considered, the direct relationship between social class and perceived risk simply disappears.

However, in addition to uncovering the complexity of the relationship between social class and brand loyalty, this study also made another important contribution. By conducting this study with women from India, we not only provided further evidence on the cross-cultural validity of previous research on social class, perceived risk, and brand loyalty, but we also extended this research. Thus, the study made an incremental contribution toward fulfilling the great need for cross-cultural research that validates and extends the findings that have emerged with U.S. consumers.

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Playing with Pictures: Postmodernism, Poststructuralism, and Advertising Visuals

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ABSTRACT

The postmodern environment in consumer research has led to a diversity of approaches to consumer culture. As is typical of many postmodern enterprises, the new ethic of research has often resulted in recasting consumption and its culture as "texts" to be read and interpreted. Within this framework, several interpretive essays on commercial art have appeared, but all have used structuralist/semiotic theory. This essay explores the advertising visual as a postmodern text, proposing that poststructuralist theory offers particular promise as an appropriate strategy for interpreting graphic signification in consumer culture.

"Our advertising is fed by postmodernism in all the arts and inconceivable without it," writes Fredric Jameson in his landmark essay, "Postmodernism and Consumer Society" (1983, p. 124). The postmodern critique has reached a momentous level among cultural theorists (compare Gitlin 1989; Hassan 1980; Hebdige 1989; Jameson 1983, 1984; Kellner on Baudrillard 1989; Lyotard 1984; McRobbie 1986; Morris 1989). Although there is disagreement about postmodernism's meaning, political orientation, and artistic effects, there is a consensus that the postmodern aesthetic comes from the marketplace. Postmodernism, it is argued, is the artform of the consumer society, an outgrowth of mass production, mass media, and mass marketing (Hebdige 1989; Jameson 1984; Gitlin 1989). Critics assert that postmodernism represents the rise of the visual at the expense of the verbal, and the archetypal example is often the advertisement (McRobbie 1986, p. 54-56). Yet the textual, technological, and historical developments in commercial art that point to the postmodern aesthetic have not been traced.

As this academic kettle was brewing in the humanities, a paradigm shift occurred in consumer behavior that brought us into a "postmodern" period (Lutz 1989, Sherry 1991). This new ethic of research welcomes multiple voices and pluralistic methods for their diversity, richness, and new insights--and mirrors similar moves toward intellectual pluralism in fields like literary criticism and anthropology. As is typical of postmodern enterprises, initial efforts have often recast consumer culture, indeed the act of consumption itself, as a form of text (Stern 1989 is just one example). The study of advertising texts has drawn specific interest, including several essays on advertising visuals (Durand 1987, McQuarrie 1989, Mick and Politi 1989). So far, however, all the new work on commercial art in our own discipline has adopted the mantle of semiotics/structuralism as its theory. My purpose in this essay is to introduce poststructuralist thought as a new framework for studying advertising visuals, particularly within the context of the postmodern aesthetic. This is an exploratory piece, presenting concepts along with

historical illustrations as a way of suggesting the potential and parameters for a different way of thinking about advertising images. I am motivated to do this by the uncanny confluences among certain poststructuralist concepts, the formal and historical characteristics of advertising texts, and the marks that are generally agreed to typify postmodern style in graphics.

POSTMODERNISM: A SHOPPER'S GUIDE

"The entire elusive phenomenon that has been characterized as postmodernism is best understood not just as a style but as a general orientation, as a way of apprehending and experiencing the world and our place, or placelessness, in it" (Gitlin 1989, p. 101). Postmodernism has been notoriously hard to define. Part of this difficulty is traceable to one of its most characteristic traits, a tendency to embrace diversity. As in our own field, postmodernism in art, literature, and everyday life is often seen as a fundamental multiplicity of viewpoints. To some, this is a democratic characteristic; to others, this multiplicity is seen as a cynical inability to commit, a jaded lapse of conscience, a vision that is hopelessly "fragmented," or simply the absence of viewpoint caused by the tolerance of many views (Donoghue 1986, Gitlin 1989, Jameson 1984, Lyotard 1984). Postmodernism in intellectual discourse is often also relativistic and historicist, distrustful of transcendent principles or underlying structure (see, for example, Anderson 1986). Thus, for those who prefer hierarchical orders, traditional art, and absolute truths, postmodernism can be quite threatening.

"Postmodern" and "postmodernism" are terms that are used to describe a philosophy, an aesthetic, and the conditions of living in a certain period of history, much as the terms "Renaissance" or "classical" are used for the same purposes. This overlap in terminology is not peculiar to the discourse on postmodernism. However, our awareness of the overlap of these forces in social experience is a rather salient feature in postmodern thinking. In the current practice of cultural criticism--influenced as it is by neomarxism and the cross-fertilization between anthropology, "high theory," and the arts--it has become a truism that philosophy and aesthetics are produced by the conditions of living and, in turn, affect the conditions of living via their influence upon values, beliefs, and perceptions. So, although we are primarily concerned in this paper with a visual style and aesthetic, both the conditions of living and the philosophical orientations of the twentieth century will be constant subtexts.

In cultural works, a certain constellation of styles and tones are generally thought to characterize postmodernism: pleasure in the play of surfaces; allusion; mimicry; irony and parody; formal self-consciousness; fragmentation; repetition; mixtures of

forms, periods, and styles (Gitlin 1989, Hassan 1980, Jameson 1983). Although postmodernism occurs in music and literature, it is frequently characterized as profoundly visual, and thus a death threat to the culture of the word (Donoghue 1986, Hassan 1980, McRobbie 1986). Since postmodern artifacts frequently allude to other artifacts in a visual way, postmodernism has been called (pejoratively) an art that quotes "images already man-made" (Donoghue 1986, p. 36; see also Benjamin 1968). These allusive exchanges are often between mass media texts--the print ad that "quotes" a TV sitcom, for example, as in Figure 1.

Postmodernism is bashed by both political extremes. The New Left reviles postmodernism as the culture of "Thatcherism"; high art traditionalists bemoan it as the degenerate voice of popular culture (Hebdige 1989). Nevertheless, if one observes postmodernism as it exists in everyday life--those things in ads, album covers, table settings, magazine layouts, and music videos that are "pointed to" as being postmodern--a number of other social aspects become clear. One is that the postmodern is a popular style in both senses of the word: it is a mass form and it is well-liked by many people (Gitlin 1989; Lyotard 1984, p. 76). Indeed, the positive reception given postmodern culture appears to be one of its greatest sins in the minds of intellectuals (Jameson, p. 124; Lyotard 1984, p. 76). In the forms it takes and the allusions it makes, postmodernism is an art of the every day; for example, its text and context is often television ("that mongoloid medium," Hassan, p. 124). Postmodernism is often identified, explicitly or implicitly, as a peculiarly American phenomenon; descriptions often focus on sites of mass consumption, like shopping malls and fast food restaurants (see Gitlin 1989). Postmodernism shows a penchant for the retro and the tacky, as well as a preference for the imaginative recombination of everyday forms over the exaltation of the rare, privileged, or expensive. Thus, postmodernism is an aesthetic that is accessible to the many and not just the few. Further, the ability to broadly communicate is a mark of postmodern cultural artifacts that distinguishes them from modernist works--and raises the ire of the critics (Lyotard 1984, p. 76; Merquior 1986, p. 17). Taking advantage of the shared discourses of television, radio, films, and mass magazines, the postmodern style can tap into a world of artifice and allusion that is easily as sophisticated as the world of gentlemen literary critics--but with a much wider audience. The knowing audience implied by postmodernism challenges both the elitist assumptions and anti-empirical methods of the culture of modernist criticism (McRobbie 1986, p. 55-56). Thus, in many ways, the thrust of postmodernism works against "modernism's relentless hostility to mass culture" (Huysen, qtd. in McRobbie).

POSTSTRUCTURALISM: THE TRIAL-SIZED VERSION

As both a philosophy and a theory of language, poststructuralism exists in opposition to structuralism and its contemporary manifestation, semiotics (Davis and Schliefer 1989, pp. 147-148, pp. 205-213;

Eagleton 1983, pp. 127-150; Newton 1988, pp. 147-148). Poststructuralism was introduced by French philosopher Jacques Derrida in 1966, and gained rapid acceptance, notably among famous structuralists like Roland Barthes and Jonathan Culler (Davis and Schliefer 1989, pp. 205-213; Eagleton 1983, pp. 135-145; Lentricchia, pp. 157-210; Newton 1988, p. 171). Using Saussure's principle that a sign has distinctive meaning by virtue of its difference from other signs, Derrida built the poststructuralist argument that all gestures signify according to their present place in a web made of the existing universe of signs (Eagleton 1983, pp. 127-134). The locus of meaning, then, is not an immutable, ideal structure of language that acts as a "center" for signification--and thus knowledge and life. Instead, meaning inheres in the surface of an ever-changing web of signs, making all language acts essentially provisional and allusive. Each signification is seen as being constructed of fragments of prior significations, being meaningful by virtue of the traces that each fragment carries of previous uses (Derrida 1972). These already-used words and images are then reassembled, in an act and form that Derrida calls *bricolage*, and they come to mean in the way that they shimmer against each other and against their previous context. This "play" among the fragments is what is known as the *freeplay of the signifiers*. Since each fragment means by virtue of association with other fragments, meaning is said to be always deferred to another chain of signifiers. This constant deferral of meaning is known, in a play on Saussure, as the *différance* (Derrida 1972; Eagleton 1983, pp. 127-135).

A primary interpretive strategy of poststructuralists has been to reveal the constructed nature of texts by unravelling the associations upon which they are built, a technique called *deconstruction* (Abrams 1977, Miller 1976). Indeed, this technique is so famous and controversial that poststructuralism is often called "deconstruction" or "deconstructionism." In particular, the deconstructive strategy often aims to subvert the binary oppositions presumed by structuralists, showing the text to be *undecidable* in binary terms, due to the freeplay of the signifiers (DeMan 1979, Eagleton 1983, pp. 132-134). As the text is unravelled, poststructuralists assert, one catches a glimpse of the absence of an immutable structure, or philosophical center, underlying the utterance. This momentary insight into the chasm underlying language is known as the *mise en abyme* (Abrams 1977, p. 560). The work of the critic toward the moment of the abyss has given poststructuralism a bleak metaphysical aspect (Abrams 1977; Gitlin 1989, pp. 106-107), and led to a reputation for the theory as, ironically and at once, both playful and nihilistic (Derrida 1972, pp. 243-246; Lentricchia, pp. 160-163).

For our purposes here, we must note that poststructuralism also differs from semiotics in another important way. While structuralism is a speech-based theory of language, or *phonocentric*, poststructuralism is a writing-based theory, or *graphocentric*. Everything in poststructuralism is a text, and there is nothing that exists outside the text

FIGURE 1

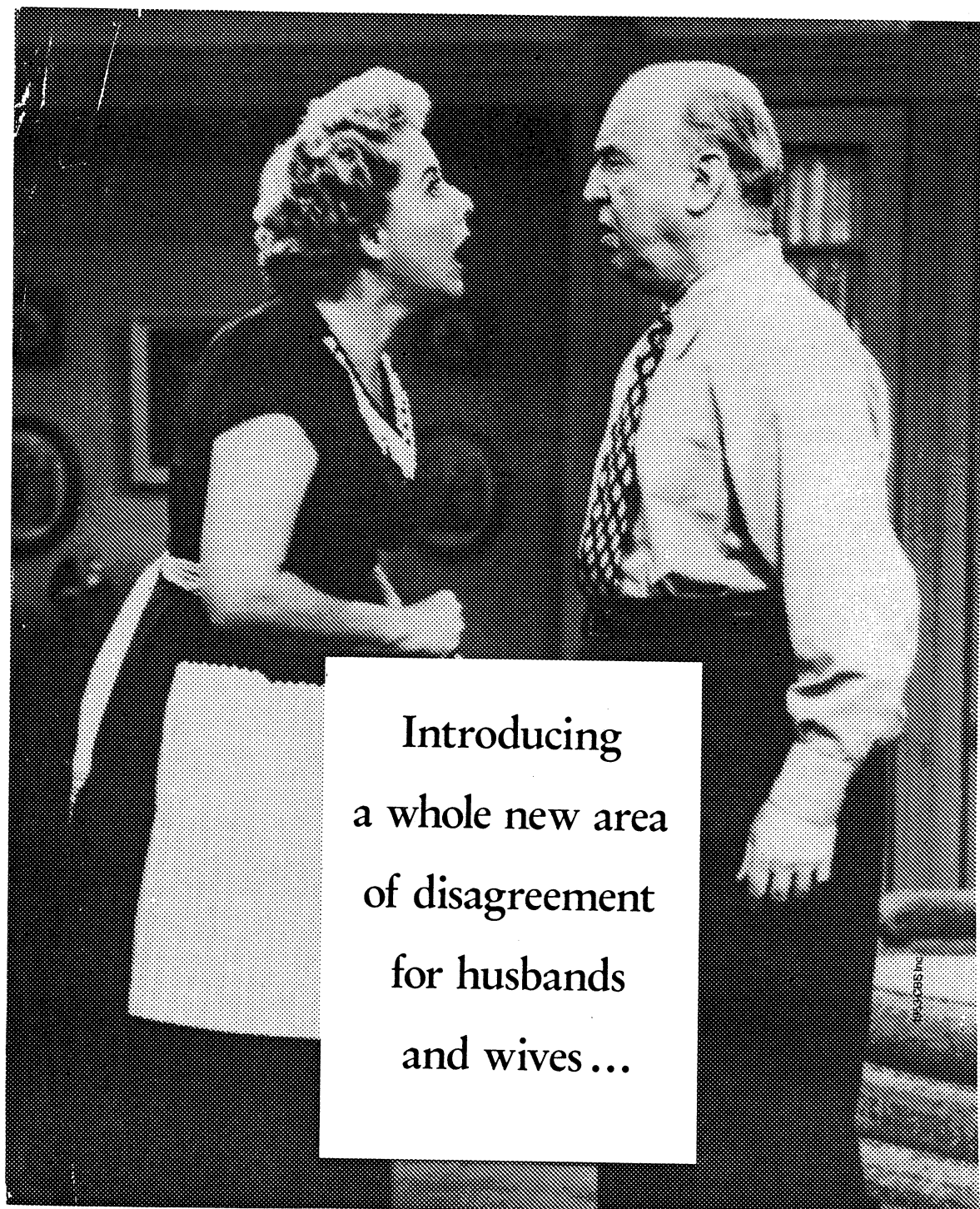


FIGURE 1 (CONTINUED)

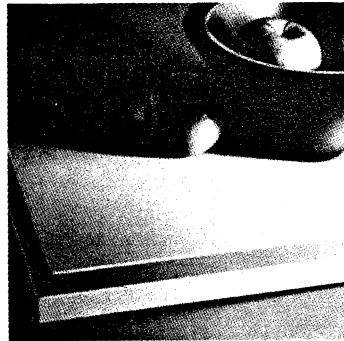
...which Formica® Brand surface to choose.

When it comes to countertops, there are only three possibilities. Each has its own special advantages. And Formica Corporation is the only company that makes them all.



1

LAMINATE. There's only one Formica brand laminate. Although other people now make laminate, we invented it, and we're still the best at it. Which you'll realize when you see the amazing variety of patterns, colors and textures we offer. You can be wildly—or even not so wildly—creative with it. If you're planning on doing a kitchen or bath and quality is important, ask for Formica brand laminate by name and accept no substitutes.



2

COLORCORE. For a customized look, you should look into ColorCore surfacing material. Color is what ColorCore is all about—color that goes all the way through, so its beauty isn't interrupted by the dark edge of regular laminate. ColorCore gives you the look of a solid surface at less cost, as well as the option to do distinctive custom edge treatments like the one shown. And there are over a hundred ColorCore colors to choose from.



3

SURELL. The newest and unquestionably the most exciting solid ever introduced, SURELL solid surfacing material has a timeless, sculpted look. It gives you the beauty and elegance of marble and granite in a choice of countertops, vanities with molded backsplashes, lavatory bowls and showers, all with the assurance of Formica brand quality. Solid color choices are available, as well as several remarkably realistic granites. If you're doing a kitchen or bath to match a lifestyle that's here to stay, SURELL solid surfacing material is your design solution.

For the name of the kitchen and bath dealer nearest you, call 1-800-FORMICA.



The Name Brand in Surfacing.

Write for our definitive reference book on innovating with color in your kitchen and bathroom. Send \$3 per copy of "Elements of Color" to: Formica Corporation, 10155 Reading Road, Dept. M, Cincinnati, OH 45241
© 1990 Formica Corporation

(Derrida 1972, Davis and Schliefer 1989). Among other things, this difference opens poststructuralism to the differences in how images, as a form of writing, are portrayed, as opposed to focusing on or assuming their referentiality, as has been the case with structuralism (for example, Barthes 1982). The effect of poststructuralism is specifically to divide the signifier from the signified, as well as to decenter the privileges of the word over the image (Eagleton 1983, p. 128; Morris 1989).

ADVERTISING AS POSTMODERN BRICOLAGE

Given its preoccupation with fragments, allusion, playfulness, surfaces, and the work of bricolage, poststructuralism predictably has become nearly synonymous with postmodernism in cultural critical discourse (Gitlin 1989; McRobbie 1986; Morris 1989). Poststructuralism, seemingly the most suitable analytical tool for postmodern artifacts (though by no means the only tool), has become identified with them, much the same way New Criticism became identified with Modernist poetry and fiction (Davis and Schleifer 1989, p. 15). Consequently, it seems likely that poststructuralism would have much to offer our own scholars in their desire to analyze that prime mover of postmodernism, advertising.

In the remainder of this essay, I wish to suggest how advertising came to exhibit the distinguishing characteristics of postmodern artifacts and show the suitability of poststructuralist concepts to the explication of ads-as-text. We will look first at the historical basis and ground for pictorial allusion in advertisements, thus sketching out the symbolic web and the trajectories of the *différance*. Then, practices of signification typical of advertising, the reuse of images and mimicry of styles, will be analyzed as overt acts of bricolage. Target audiences will be discussed as the coin of which one side is fragmentation and the other, multivocality. The development in television advertising of story-telling and character description as a progression of broken images will be examined. Finally, the changing relationship between image and word will be explored in order that the question of an emergent pictographic culture may be raised.

THE PICTORIAL WEB

The history of advertising as a visual discourse, as opposed to its verbal history, must be traced from retail signboards to the popular printed poster to the magazine ad (Hornung and Johnson 1976, Presbrey 1929). Key to the momentum is the ability of printing technology to reproduce visual forms in an increasingly accurate and full-bodied way--with line, color, half-tones, and so on. Both the reproduction of pictures and the growing vocabulary of typefaces have been of central interest to advertisers throughout graphics history (Hornung and Johnson 1976). Advertisers, however, were precluded from running elaborate pictures in newspapers and, later, in magazines, for decades after pictures were routinely

included in editorial (Hornung and Johnson 1976, Presbrey 1929). Once allowed to use fully the pictorial capability of a medium, advertisers frequently appropriated the styles of the contextual vehicle. For example, the cover of the *Saturday Evening Post*, the most popular early-century magazine and the most aggressive in soliciting advertising, was mimicked in advertising layouts as early as 1905 ("Pro-phy-lact-ic Tootpaste" ad 1905) and continues today ("Durolast" ad 1989). As the "Golden Age of Illustration" progressed, more illustrative styles and layouts were both known and mimicked, not only in advertising but in other cultural forms as well. Furthermore, once the technology was sophisticated enough to reproduce high art forms in quantity, the practice of visually alluding to famous paintings and sculptures became common. Typical of this genre is the current ad for Minolta (Figure 2), which alludes to the works of Rene Magritte. The sense of this ad, like others of its type, is based on a sufficient reproduction of the original, graphically altered for the purposes of rhetoric. Thus, it signifies through partial allusions, recombined in fragments, that "shimmer" against each other in a new message. Such ads often result in a visual parody of high art, like the 1970 Levi's ad that simply showed Michelangelo's David dressed in a pair of "cut-offs" (Goodrum and Dalrymple 1990, p. 170).

In the 1930s, growth in two other cultural forms, comic strips and radio, is mirrored in advertising pictures. Throughout the magazines of the thirties are examples of comic characters or strip styles being adapted for commercial use. Advertisers, apparently trying to effect synergy between the new medium of radio and the more mainstream medium of popular print, also tended to announce their sponsored radio offerings in the corners of print ads, often signalled by an appropriate picture, like a drawing of an orchestra conductor ("Coca-Cola" ad 1936). In the 1936 ad for Campbell's Tomato Juice reproduced in Figure 3, we see a full-blown example of this kind of intertextual allusion: the visual convention of the comic strip is used to evoke the sponsored radio show by making a box-and-balloon recreation of the comic antics of Burns and Allen. Eventually, similar practices would be used to announce sponsored television shows, as well. The main visual in Campbell's Soup advertising of the 1950s is usually a photograph of Timmy and Lassie or Donna Reed's TV family, since both *Lassie* and *The Donna Reed Show* were sponsored by the soup-maker ("Campbell's Soup Print" 1900-1985).

Given this pictorial past, then, it is perhaps easier to see how the TV allusion in Figure 1 came to be. The headline does not refer exclusively to *I Love Lucy*, nor to the characters of Fred and Ethel Mertz, nor to Vivian Vance and William Frawley, though certainly the advertiser is banking on the viewer making those connections. The headline's allusion, however, is more general than that. It gestures toward all the domestic squabbles that typify the genre of television situation comedy. The headline is aided by a graphic screen over the photograph, a convention that we know signifies "television." Thus, both the

FIGURE 2

NEW FREEDOM ZOOM 105L

ONLY FROM THE MIND OF MINOLTA

MINOLTA

Be certain that the valuable Minolta 1 yr. U.S.A. limited warranty is in your package.
For more information, see your Minolta Dealer or write: Minolta Corp., 301 Williams Dr.,
Ranney, NJ 07446. In Canada: Minolta Canada, Inc., Ontario © 1992 Minolta Corp.

FIGURE 3

THE SATURDAY EVENING POST

EDUCATING GRACIE

HERE'S A TOAST TO YOUR GOOD HEALTH!

People drink Campbell's Tomato Juice first of all for the fun of it. The strong, tangy flavor, drinking it with pleasure is its natural and best tomato taste. It honestly tastes as lively and full as the most sun-ripened tomatoes do fresh from the garden in August.

25 Years of Improving the Flavor

Campbell's have taken great care to get such a rare, fine flavor for this drink. For twenty-five years they have been carefully cross-breeding tomato plants to improve their luscious flavor and their tangy taste. And today Campbell's tomatoes are such leaders as you have never dreamed of. These Campbell's press lightly, so as to secure only the best and finest juice and thick pulp. Then this keen, tangy juice is canned by a special process which minimizes heat and exposure to air, and thus keeps it at the true fresh tomato tang. So people drink Campbell's Tomato Juice for fun, and there are real reasons too why they should drink it for reason.

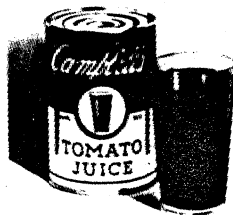
An 8-ounce Glass a Day for Health

One of Nature's main suppliers of vitamins A, B and particularly of the important vitamin C is fresh tomatoes.

Vitamin C is the element that helps change ordinary, listless, lackadaisical health into vigorous, alert, buoyant health. The same special process which protects the fresh flavor of Campbell's Tomato Juice retains the vitamins to the very maximum degree. So one 8-ounce glass of Campbell's Tomato Juice is an important step toward the pep and vigor that all of us desire.

Keep Plenty in Your Refrigerator

Drink Campbell's Tomato Juice! Drink an 8-ounce glass a day, for health! A second, and a third, for fun! Keep several cans on hand always. *A better drink is better health!*



10c a can (14-oz.)
The family size 16-oz. can
is even more economical.

Campbell's
TOMATO JUICE
TASTE THE DIFFERENCE!

textual referent and the manner of "writing" are important to the allusion. The graphic style is not empty mimicry, as is often claimed by critics of postmodernism, but a purposive, meaningful gesture.

Looking at the "flip side," if you will, we also find allusions to and parodies of advertising in other media forms. *Saturday Night Live* is but one in a long history of late-night TV shows that have used advertising parody as a staple comic gimmick. But new forms such as *Nick at Nite*, which reruns old TV shows but parodies them in the promos, have made such allusions even more complex. In Figure 4, *Nick at Nite* pretends to offer a ceramic sculpture of the graphic sign of a classic sitcom, *My Three Sons*. In so doing, it parodies "mail-away" ads like those of the Franklin Mint, ending with the send-up, "Not available anywhere, even from us." This ad's picture must be understood, therefore, as *both* the intertextual referent and its parody. We can see, then, the web of signs being altered by this use, refabricated in the current play of signification. Our sketch of the pictorial web is now more or less complete: we have seen the interaction of the advertising visual with popular magazines, high art, radio, comic strips, television, and, ultimately, with itself. This formal consciousness of self is, in many opinions, the essence of postmodernism.

REUSING IMAGES AND MIMICKING VISUAL STYLES

The ability to accurately reproduce and mimic other images also led quickly to the reuse and repetition of the advertiser's own signs. For example, in 1897, Colgate paid Maxfield Parrish twenty-five dollars for the painting of a Dutch boy for the purposes of advertising Cashmere Bouquet. Once in possession of the painting, Colgate had other artists copy it, adapt it, and reconfigure it in various forms, large and small, in line art and halftones, as a female and a male, in multiple repetitions and for many other products. Consequently, it became one of the best known advertising signs of the turn of the century, constantly reappearing in new incarnations (Ludwig 1975, pp. 105-106). The Dutch boy image itself--like thousands of others that would follow--became meaningful specifically through the mechanism of graphic reconstitution and repetition and referring always to its string of previous appearances.

Using unknown artists to mimic the visual styles of well-known popular illustrators in the production of new images became a common strategy among advertisers. By borrowing certain visual styles, the advertiser alluded to the associations that the known artist had come to have (Scott 1991). Thus, the style of rendering itself came to signify. Beginning in the late 1920s, advertising art directors also appropriated the styles of high art, as they were articulated both pictorially and typographically, often to lend an air of authority or prestige to their campaigns (Marchand 1985, pp. 140-148). This taught the conventions of Cubism, Vorticism, Impressionism, Bauhaus, and other styles to an audience that might never have otherwise been

exposed to them (Marchand 1985). Over time, the social and historical associations of these styles could be invoked through their reproduction to create an ethos or a sense of period. Ultimately, the profusion of popular and high styles that could appear and be meaningful within the context of a single magazine issue comes to constitute a kind of visual heteroglossia (Bakhtin 1981); that is, cultural multivocality stated in visual terms.

As it appears in a magazine, the Jello Jigglers ad in Figure 5 has a noticeable all-over yellow cast, similar to that caused by the color print-production technologies of the 1950s. The headline is set in a typeface popular in the 1950s and the graphic recipe cut-out is much more typical of that decade than the present one. The consumption texts, both the little boy's pajamas and the recipe itself, are also evocative of the baby boom years. For all appearances, this is an ad from the 1950s; however, it actually ran for the first time in 1989. This ad is thus a particularly good example of the postmodern genre of *pastiche*. The pastiche is a form of historical parody that Jameson criticizes as one text aping another without the humor or affection characteristic of "real" parody (Jameson 1983). Yet if we think of all the signs here as fragments coming together to signify through their associations with prior symbolic gestures, as well as their appropriateness for the task at hand, then this pastiche is merely using visual forms to communicate in much the same way words do under the poststructuralist model. Notice also that the graphical *manner* of signifying in this ad is as important as *what* objects are pictured--perhaps more so. Thus, the structuralist principle and practice of brushing aside the surface manifestations of pictures in search of the underlying structures or the apparent referents would obscure much of what is being said here (see Leymore 1987, Barthes 1982). And, surely, though the literary critics may not view these pajamas as an affectionate allusion, most of the rest of us would. Using these affectionate allusions, the Jigglers ad visually evokes a fondly-remembered historical period as a means of building the ground for mutual confidence that is necessary to persuasion.

FRAGMENTATION, MULTIVOCALITY, AND PRACTICAL UNITIES

In ways similar to the work of the Jello ad, various visual strategies may be used to appeal to and create alliances with certain groups of readers, or target audiences. Targeting audiences obviously is further achievable through the channels and vehicles of media. For example, in the current Toyota ads, different pictures rendered in the same style target the typical readers of various magazines: a youthful, male sportscar driver for *Rolling Stone*; a young woman for *Mademoiselle*; a family around the fireplace for *Metropolitan Home*. The pictures and the placements carve out various audiences, while the consistent visual style creates formal campaign unity.

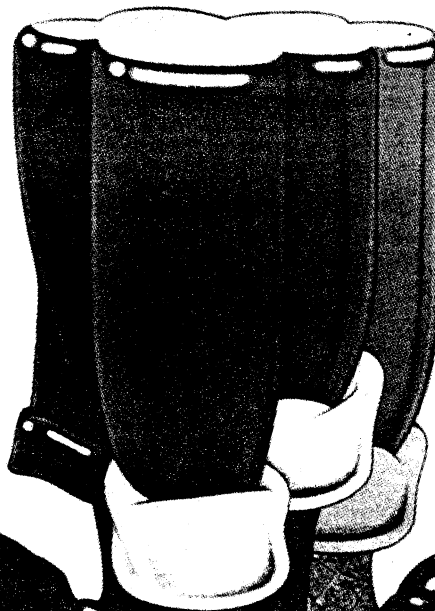
As a consequence of this use of pictures and styles to carve out smaller groups from the larger society, however, consumer texts are often charged

FIGURE 4

Own This Beautiful "My Three Sons" Legs Lawn Sculpture.

Let the whole neighborhood know you're a TV comedy fan with this handsome objet d'art. Battery-operated foot goes up and down in time to My Three Sons theme song, which plays constantly. Each sculpture handcrafted from genuine pieces of discarded mannequins and glazed to perfection. Not available anywhere, even from us.

© 1980 MTC Networks



"MY THREE SONS"
Weeknights on Cable TV.

NICK
at
NITE

"Hello out there
from TV land!"



FIGURE 5

Make Jell-O® Gelatin
you can eat with your hands.



Try our Jigglers recipe.



Jell-O® Gelatin Jigglers

- 2 family-size pkgs. (8 serv. size) or
- 4 small pkgs. (4 serv. size)
- Jell-O® Brand Gelatin
- 2½ cups boiling water or apple juice

Completely dissolve gelatin in boiling water or juice. Pour into 13 x 9-inch pan. Chill until firm, about 3 hours. To unmold: dip pan in warm water about 15 seconds. Cut into squares or use cookie cutters. Lift from pan.



THEY'RE A HANDFUL OF FUN.

© 1992 General Foods Corporation. Jell-O® is a registered trademark of General Foods Corporation.

with "fragmenting" culture (Gitlin 1989). This is a specious argument, in my mind, which is best refuted by considering the textual alternative. Opposing this kind of fragmentation in the media can only be done by homogenizing both the approaches to society and the channels for reaching it, as well as the depictions of its members, thus denying its diversity and multivocality on all levels. Recently, Dick Hebdige, has argued in support of the multivocality--and implicit democratic impulse--behind such postmodern developments, and, taking his cue from Raymond Williams, suggests the worthiness of "demassifying the masses," even unto the point of forging alliances between Marxism and market research (1989, especially p. 52-53).

A further source of criticism falling under the general heading of "fragmentation," is the convention of visual collage or montage, particularly in television. This convention was begun by advertisers in the early 1960s as a means of telling stories and evoking characters in the short time frame allowed for television commercials (Haber 1989, Levine 1984). Since there wasn't time in a TV spot for the careful plotting and revelation of character allowed by traditional dramatic forms, advertising producers experimented with stringing together multiple visual moments--an action, a facial expression--that would, together, constitute a narrative, describe a character, or evoke a mood. Television programming itself has generally continued to use a much more traditional form of dramatic exposition--essentially the "naturalistic theater" form of storytelling--while the commercials have become increasingly composed of vignettes and montages, especially as lengths shortened. Even so, such "fragmentation" is constrained by the achieved unity of story or character comprehension, as intended by the advertising author (Haber 1989, Levine 1984). In other words, the composition of the fragments is not open-ended, but constrained by normative strategies of seeing, storytelling, and inference. It is often argued, on the other hand, that the poststructuralist model avoids the issue of interpretive norms that circumscribe the play of associations and therefore make communication possible (Abrams 1977).

THE IMAGE AND THE WORD

The community of criticism, being heavily invested in the culture of the word, has traditionally viewed pictures as atavistic icons, powerful implements that bypass our rational faculties to drag us back to more primitive times, while the word is the very heartbeat of civilization (Mitchell 1986, p. 3 and 7-46). There is thus a thoroughgoing antivisual bias in cultural criticism that nearly always lies just beneath the discourse on popular culture. The tendency toward verbal imperialism in structuralist theory plays well to this disposition; the impetus of poststructuralism is directly against it (Saussure 1959, p. 16; Mitchell 1986, pp. 53-74; Morris 1989). Further, the gestures of postmodernism, particularly in advertising, have tended to change and subvert

assumptions about the relationship between word and image.

In Western culture, verbal literacy has long been equated with power. Access to the skill to read has been the goal of the oppressed, as in the heroic efforts of the American black community to attain literacy in the 19th century, as well as the means to keep the oppressed in their place, as in reading requirements for voting rights. It is important to understand that the rise of the mass media substantially changed the role of reading in several ways. First, popular fiction, as published in mass magazines or cheap books, made reading a pastime of the masses for the first time (Darnton 1987). Secondly, the growing hegemony of the visual and aural cultures of television and radio, have threatened the preeminence of the written word. Finally, the ever-widening visual vocabulary caused by the practices I have described here has changed the interaction between pictures and words in popular texts. Whereas pictures in a written work have traditionally illustrated or elaborated the text in a subordinated fashion, the postmodern work is more likely to show a meaningful interaction--a free-playing--*between* image and word. And, the use of communicative styles of typeface, as well as purposive layouts, have come to mediate the word in a profoundly visual way.

For example, in Figure 6, the meaning of the ad must be inferred by holding the picture and the headline in semantic tension. The headline, which uses a typical diplomatic phrase that normally occurs in situations of conciliation, "strengthens our ties," is contradicted by the visual, a caricature of Ayatollah Khomeini dangling Uncle Sam by a string. Together, they form an ironic trope. Neither picture nor headline alone can produce the trope, a proposition you can easily test by covering one while "reading" the other. *Both* must be present to constitute the irony. So, the meaning occurs precisely in the space of interaction not only between two signs, but between two sign systems (see also Foucault 1983).

The inability of structuralism to account for meanings that must be inferred in a state of ambiguity has been one of its weakest points, and a place frequently attacked (Davis and Schliefer 1989; Eagleton 1983). In poststructuralist theory, this argument is further articulated in the demonstration of the *undecidability* that occurs in a text between binary categories of structurality (see De Man 1979). For a demonstration of this phenomenon occurring on both a visual and verbal level, look at the J & B advertisement in Figure 7. Here we see a messy representation of the alphabet that looks like it was brushed hastily in black paint. The letters "B" and "J," however, have been set in a neat, Garamond typeface, in red. They contrast succinctly, but not overly, with the surrounding alphabet and they are not in the order of the product's name. The legend is simply, "J & B neat," simultaneously a play on "J & B straight up" *and* on the contiguous representation of the messy alphabet with the neat letters "B" and "J." The meaning here is created by both a metaphor (the

FIGURE 6



IMPORTED OIL STRENGTHENS OUR TIES TO THE MIDDLE EAST.

Last year, almost 40 percent of all the oil we used came from foreign countries. Much of that from the unstable Middle East. And this dependence on foreign oil is growing.

The more we use nuclear energy, instead of imported oil, to generate electricity, the less we have to depend on foreign nations.

The 110 nuclear electric plants in the U.S. have cut our foreign oil

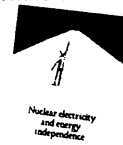
dependence by over three billion barrels since the first Arab oil embargo. And they have cut foreign oil payments by over 100 billion dollars.

But 110 nuclear plants will not be enough to meet our growing electricity demand. More plants are needed.

If we are going to keep our energy future in our own hands, we need to rely more on energy

sources we can count on, like nuclear energy.

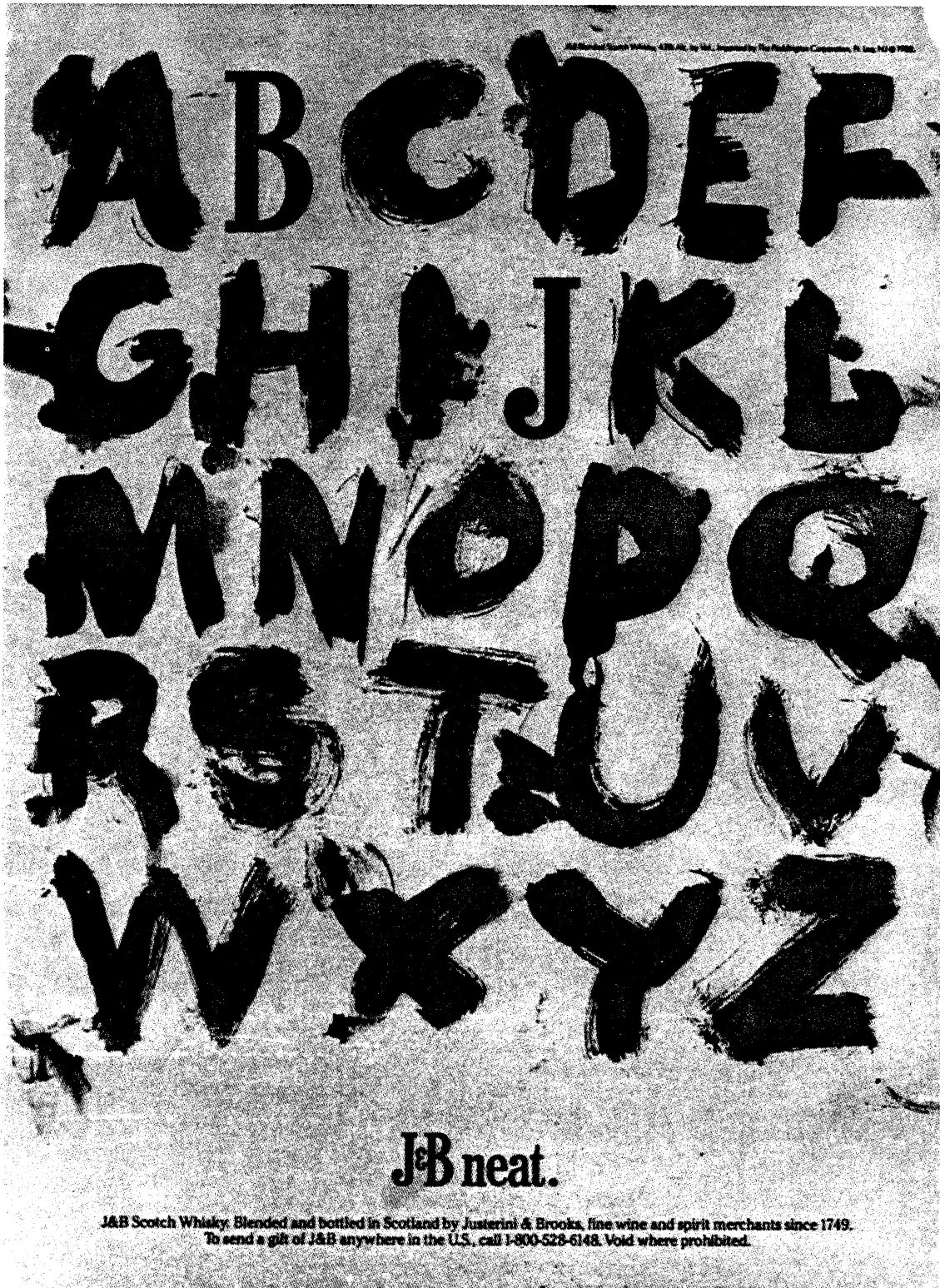
For a free booklet on nuclear energy, write to the U.S. Council for Energy Awareness, P.O. Box 66103, Dept. AY02, Washington, D.C. 20035.



U.S. COUNCIL FOR ENERGY AWARENESS

Nuclear energy means more energy independence.

FIGURE 7



pun on "straight up") and a metonymy (the letters)--and is thus undecidable. It is also undecidable whether the joke inheres in the letters themselves or the *visual representation* of the letters. Therefore, *neither* a paradigmatic (metaphorical, rhetorical) model nor a syntagmatic (grammatical, metonymic) model is sufficient by itself to decide the meaning. It is found, instead, in the shimmering surface between each binary opposition.

M. H. Abrams has explicated the Derridean notion of language as a graphocentric system in which we constitute meaning from black marks and spaces that have been estranged from our usual prior model of speech acts. These marks and spaces, however, are signs we have seen before, not random markings, and as they are reused to make new meanings, they carry with them the disembodied traces from previous uses. Thus, any act of interpretation or attempt at definition ties one to the never-ending, ultimately meaningless chain of deferral. By breaking down each text into an endless chain of associations, synonyms, and etymological roots, purposely working across those places where the possibilities are generally narrowed and guided by norms, the poststructuralists interpret their texts into oblivion. This action is intentional; its purpose is to lead to the aforementioned moment of the abyss. The deconstructionists claim that all linguistic configurations are ultimately undecidable, or, as Abrams puts it "more bluntly: 'All reading is misreading'" (1977, p. 560). Thus, though the Derridean concept of language is grounded in shared knowledge and past experience as the source (indeed, the only source) of meaning, the poststructuralist activity of deconstruction finally denies the way that social experience and norms constrain the limitless possibilities presented by the text. In this way, the Derridean concept has led to a model of language that does not communicate. Poststructuralist critics, by exploding shared practices, knowledge, and historical events, ultimately reject the possibility for either communication or action in a way that many feel is cynical (Abrams 1977, Gitlin 1989, Hirsch 1976).

Figure 8 provides a surprising play on this cynical model of language. This is a recent advertisement for Cointreau that appears only in hip, upscale, postmodern magazines like *Spy*, *Details*, and *Vanity Fair*. The visual is a very artificially dressed and made-up woman. Tinted purple, and superimposed slightly to the left of her image, is the partial face of a man, who seems to be the speaker. (Perhaps he is the human equivalent of a "fragment.") The backdrop for the copy block is even marbled, like the world of these readers, hopelessly hip.

But it is the copy that is remarkable in its strangeness. It is an odd French-based patois, at once Gallic and pidgin. A second headline and copy block appears at the bottom of the ad, but it is cut off, as if the run of the press was crooked. (Freeplay in the machine?) It is as if to indicate that the next signification, the next *différance*, is already in the process of being formulated. When we are first confronted with it, this language has all the strange and threatening appearance of the innovative text

described by Poststructuralist J. Hillis Miller: "...the terror or dread readers may experience when they confront a text which seems irreducibly strange, inexplicable, perhaps even mad" (1989, p. 567). The traces of French and pidgin are even a bit offensive, implying a cruel, long-ago, but still destructive colonialism. We may, perhaps, despair of understanding this ad, considering ourselves not qualified to aspire to the hipness demanded by postmodern society. Maybe we turn the page.

But maybe we try reading this out loud. The language, it turns out, is completely phonetic. A minimal knowledge of French makes the sense of these lines come rolling out when they are spoken. The primacy of speech reasserts itself in a wonderful little joke; the closed graphic presentation is opened by a phonetic key. In a playful gesture between writing and speech, the word reasserts its communicative power.

Conclusions

I have tried to draw here the outlines of a visual history in which images have come to communicate in abstract, allusory, and stylistic ways that challenge verbal language. We have seen several instances in which the visual presentation of words impinged heavily on meaning, conflating the traditional separation between image and text. We, as collective viewers and readers, have moved and continue to move beyond a past in which pictures largely confined themselves to referentiality or ritual, and toward a culture in which pictures demonstrate, exhort, explain, allude, and, above all, play. What we are making here, it seems to me, is a full-blown pictography that can both speak to and represent a wide, diverse audience. Unfortunately, it appears that a mistrust of consumer society, a vested interest in the culture of the word, a thinly-veiled contempt for the "masses," and an unwillingness to support art as communication, have led cultural critics to greet this development in human ability as the death knell of civilization.

The role of advertising in this development appears to be direct. Many developments discussed here grew out of the desire to address people in an attractive and economical way, taking advantage of technology, channels of discourse, and cultural history, as opportunities presented themselves. It seems logical to me that in harnessing pictures to the service of rhetoric, a subtle and complex language of the visual would be born.

The appropriateness of poststructuralism for research on consumer culture lies in its awareness of the dynamic nature of signifiers and their inherent intertextuality. It also seems possible that poststructuralism offers much in its ability to deal with pictures and graphics without subordinating them to referentiality or to the "structure" of another sign system. The overall concern with the constitutive effect of surfaces is also peculiarly relevant to advertising. Advertising makes much of its meaning by borrowing from other texts and altering them on the surface to make new meaning. Ultimately,

FIGURE 8



however, our own disciplinary concerns with communication and persuasion would find poststructuralism lacking. For concepts of the norms that guide practice, we would need to return to theories of grammar, such as structuralism. To evaluate persuasion and social effects, we must continue to develop the tools of history, ethnography, and rhetoric. In other words, to truly accommodate the multivocality of consumer culture, we must be multivocal ourselves, recognizing language theories and methods as strategic efforts to get at particular kinds of knowledge, just as in science. The current postmodern climate promises to provide a welcoming environment for this kind of effort.

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Remembrance of Things Past: Music, Autobiographical Memory, and Emotion

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ABSTRACT

It sometimes happens that a piece of music becomes associated with an event from a person's life so that hearing the piece of music evokes memories of the original experience. The purpose of this paper is to examine this phenomenon empirically. More specifically, the study investigates what kinds of autobiographical episodes are triggered by music that respondents self-selected as examples of this phenomenon, what characterizes these instances, and what is the relationship between the emotions descriptive of the original experience and the emotions aroused by hearing the piece of music.

And before Swann had had time to understand what was happening, to think: "It is the little phrase from Vinteuil's sonata. I mustn't listen!", all his memories of the days when Odette had been in love with him, which he had succeeded, up till that evening, in keeping invisible in the depths of his being, deceived by this sudden reflection of a season of love, whose sun, they supposed, had dawned again, had awakened from their slumber, had taken wing and risen to sing maddeningly in his ears, without pity for his present desolation, the forgotten strains of happiness.

Marcel Proust (1913/1956),
Swann's Way, p. 496

INTRODUCTION

Music is sometimes called the language of emotion, but it is not at all clear how music expresses, or is expressive of, the emotions. In order to elucidate the issues involved and to set the stage for the main focus of this paper, it might be helpful to briefly discuss two distinctions.

The first distinction is between what Pratt (1931) calls autonomous and heteronomous music. Adherents of the view that music is (or should be) autonomous argue that the "essence of music lies wholly within the borders of sound" (Pratt 1931, p. 205) and that the character of a piece of music is due entirely to intrinsic properties of the music itself. Those who regard music as heteronomous, on the other hand, argue that music possesses "content which is non-tonal" (Pratt 1931, p. 212) and that the character of a piece of music is often a function of extramusical associations. Drawing on the work of Charles Peirce, Dowling and Harwood (1986, Chapter 8), in their discussion of the relationship between music and emotion, make a similar distinction between iconic and indexical representation in music, where iconic representation (of emotions) refers to "patterns within the music itself ... of tensions and relaxations ... [which] mirror the form of emotional tensions and relaxations" (p. 205), whereas indexical representation refers to "direct association of a

musical event with some extramusical object or event, so that emotions previously associated with the extramusical object come to be associated with the music" (p. 204).

The second distinction is between what Kivy (1989, Chapter XIII) calls musical emotivism and musical cognitivism. Proponents of musical emotivism argue that music arouses (or induces) emotions (e.g., sad music actually makes you sad), whereas adherents of musical cognitivism (such as Kivy) suggest that music merely embodies (or represents) emotions (e.g., sadness in music can be recognized because sad music has characteristic qualities). While the distinction between musical emotivism and musical cognitivism centers on whether music actually induces or merely represents emotions, the difference between autonomous and heteronomous music refers to whether music per se or extramusical objects or events associated with the music induce or represent emotions.

It is possible to arrange the concepts of autonomous vs. heteronomous music and musical emotivism vs. musical cognitivism in a two by two table and to distinguish four cases of expressiveness in music. The topic of interest in the present paper is heteronomous music which arouses emotions, or the indexical induction of emotions (cf. Dowling and Harwood 1986, p. 204). The excerpt from Swann's Way by Marcel Proust quoted at the beginning is a well-known literary example of this phenomenon. Most readers, however, will probably have had a similar experience in which a piece of music conjured up images of some past autobiographical episode.

Writers on musical aesthetics, even those in the cognitivist camp, generally agree that a piece of music may acquire the capacity to arouse emotional reactions through association with significant personal experiences, but the expressiveness of music, it is argued, is then due to an accident of association and has (or may have) nothing to do with the "real expressive character of the music" (Kivy 1989, p. 157). For example, a happy piece of music could come to arouse sadness because of its association with a sad event. Furthermore, if expressiveness in music is a consequence of its indexical function, music is stripped of any special status as the language of emotion because any other object (a photo, a gift, even a smell) could also become associated with a significant personal experience and thus induce emotional reactions.

Although it is quite understandable why aestheticians would not get too excited about instances in which idiosyncratic associations endow music with emotive meaning, it nonetheless seems an interesting question to investigate this phenomenon empirically. The study reported below was designed as an initial examination of some of the issues involved. Specifically, the objectives of the study were (1) to assess how readily people can bring to mind personal

experiences that have become associated with a piece of music, (2) to explore what characterizes these autobiographical episodes, the music that triggers them, and the instances in which the phenomenon occurs, and (3) to examine the relationship between the emotions descriptive of the original experience and the emotions aroused by hearing the piece of music.

METHOD

Subjects

Seventy-three undergraduate marketing majors (43 males, 30 females) participated in the study as part of a course requirement. The data were collected in one 45-minute session in which other experimental tasks unrelated to the present study were also administered. Participants were run in groups of at most 8 people in 12 experimental sessions.

Procedure and Measures

Subjects received a questionnaire and were told to complete it at their own pace. On top of the first page they were given the following instructions:

"Sometimes a piece of music becomes associated with an autobiographical episode from a person's life so that every time the person hears the music, (s)he is reminded of the original experience. Please take a minute and think about instances in which this has happened to you. Select the instance that is most salient in your mind and briefly describe the piece of music and the personal experience that the music reminds you of every time you hear it."

After subjects had answered this question, they were asked to rate their feelings toward both the piece of music and the personal experience on two seven-point scales (pleasant-unpleasant and favorable-unfavorable). The coefficient alphas of the two sets of measures were 0.93 and 0.99, respectively.

Subjects were then asked approximately how long ago the personal experience recalled had originally occurred, how vivid the recollections of the personal experience brought about by the piece of music were (seven-point scale from 'not at all vivid' to 'extremely vivid'), how emotional the recollections were when they occurred (seven-point scale from 'not at all emotional' to 'extremely emotional'), to what extent they relived the original experience when they heard the piece of music (seven-point scale from 'not at all' to 'a great extent') and to what extent the recollections were accompanied by imagery (visual images, sounds, smells, etc.) descriptive of the original experience (seven-point scale from 'not at all' to 'a great extent').

Finally, an attempt was made to capture in more detail the affective qualities characteristic of the original personal experience and the emotional tone descriptive of the piece of music associated with it. The question, however, was which instrument to use

for the measurement of emotions (cf. Plutchik and Kellerman 1989).

In recent years, mainly through the work of Plutchik (1980, 1989) and Russell (1980, 1989), circumplex models of affect have become popular. In Russell's version of the model, 28 affect terms are arranged in a circular order, and their relative positions around the circle are described with reference to two underlying bipolar dimensions labeled pleasure-displeasure and degree of arousal (see also Mehrabian and Russell 1974).

It is interesting to note that as far back as the 1930s, Hevner (1935, 1936) proposed what is essentially a circumplex model of emotional epithets to describe music. In Hevner's scheme, 66 adjectives are classified into 8 groups arranged in a circular order. Even more interesting, the two dimensions underlying Hevner's circumplex structure correspond remarkably well to Russell's dimensions of pleasure-displeasure and degree of arousal.

Since one of the goals of this research was to investigate how well the affective qualities descriptive of the personal experience corresponded to the emotional tone ascribed to the piece of music, it was decided to measure the two sets of emotions with the Russell (1980) and Hevner (1936) instruments. Russell's 28 affect terms, arranged in circular order from high arousal/pleasure to high arousal/displeasure, are: aroused, astonished, excited, delighted, happy, pleased, glad, serene, content, at ease, satisfied, relaxed, calm, sleepy, tired, droopy, bored, depressed, gloomy, sad, miserable, frustrated, distressed, annoyed, afraid, angry, alarmed, and tense. Hevner's list of 66 adjectives was shortened to 24 by selecting three items from each of her 8 groups. The eight groups of three items, arranged in the same order as the Russell terms, are: majestic, vigorous, exalted; passionate, triumphant, exhilarated; merry, joyous, cheerful; light, graceful, playful; quiet, tranquil, soothing; sentimental, dreamy, longing; mournful, tragic, doleful; and serious, dignified, solemn.

To assess the emotional qualities of the personal experience recalled by a participant, subjects were asked, "Now we would like for you to tell us which of the following feelings are characteristic of the personal experience that you described on the previous page. Please tell us how much you felt each of the feelings listed below when the episode that the piece of music reminds you of first occurred?" Subjects responded on nine-point scales with endpoints of 'did not feel this feelings at all' and 'felt this feeling very strongly.' Similarly, to assess the emotional tone of a piece of music, subjects were asked, "The last thing we would like to know is how hearing the piece of music that you named on the first page makes you feel. Please tell us how much you feel each of the following feelings when you hear the piece of music?" Again, subjects responded on nine-point scales with endpoints of 'do not feel this feeling at all' and 'feel this feeling very strongly.'

The emotional descriptors selected from the Russell and Hevner instruments to measure the affective qualities of personal experiences and the emotional tone of pieces of music do not overlap and,

TABLE 1
Classification of personal experiences

	Unpleasant	Pleasant	Total	Percent of all memories
Current romantic involvements	0	18	18	26%
Past romantic involvements	6	6	12	17%
Times spent with friends	0	15	15	21%
Vacations	0	6	6	9%
Other	5	14	19	27%

for purposes of data collection, were listed in random order, but they supposedly tap the same two-dimensional structure of pleasure-displeasure and degree of arousal. The fact that the two sets of affect terms are distinct should reduce the problems associated with collecting all ratings at the same time, while the similarities in the underlying structure should make it possible to test whether the emotional tone ascribed to a piece of music is a function of the affective characteristics of the personal experience with which the music is associated.

RESULTS

Subjects apparently had no difficulty bringing to mind an instance in which an autobiographical episode had become associated with a piece of music. Only three of the 73 participants (2 males, 1 female) did not report a piece of music and an associated personal experience, although they evidently had thought of one because they completed the rest of the questionnaire. However, these subjects were excluded from further analysis.

In what follows, the written responses to the open-ended question will be analyzed first, then subjects' descriptions of the personal experience and the piece of music which were collected with the standardized questions are discussed, and finally the self-report measures of emotion are examined.

Analysis of Verbal Responses

One question that can be addressed by looking at subjects' verbal protocols is what kinds of personal experiences become associated with pieces of music. Table 1 shows that the majority of episodes reported by subjects (64 percent) relate to past or current romantic involvements and times spent with friends. Past and current romantic involvements refer to recollections of times spent with a past or current boyfriend or girlfriend (e.g., memories of the first date, sexual experiences, etc.). Times spent with friends is similar to romantic involvements in that another person or other people are at the center of the recollection, but no romantic relationship is implied (e.g., parties, concerts, special events, and segments of one's life in which friends played a significant role, etc.). Vacations refers to recollections of past holidays spent with family or friends. Finally, the category of other experiences includes episodes which did not fit into any of the previous groupings and which were not mentioned frequently enough to

warrant a separate classification (e.g., movies or concerts with no mentions of friends, a victory in a boxing match, the death of one's grandfather, childhood memories, etc.).

Table 1 also indicates that most personal experiences recalled by subjects (84 percent) were of positive valence. All recollections in the categories of current romantic involvements, times spent with friends, and vacations were positive, and only 6 out of 19 episodes in the other category were negative. Interestingly, memories of past romantic involvements were just as likely to be negative as positive.

There was a great deal of variation with respect to the pieces of music that subjects had memories attached to. In 15 of the 70 cases the piece of music or the composer/interpreter were not named, although people generally mentioned what kind of music it was. With the exception of Gustav Holst's *The Planets*, Russian Christmas Music, and the National Anthem, all named musical selections were of the pop/rock/folk variety. Only one song was mentioned twice, and subjects mentioned 47 different singers or groups.

Phenomenological characteristics of indexical association

Table 1 indicates that 59 of the 70 personal experiences recalled were evaluated positively and 11 were evaluated negatively. Not a single person provided a neutral rating. More importantly, most recollections were strongly affectively charged. When the extremity of evaluations (i.e., the absolute value of the deviation from the midpoint) was analyzed, 49 of the subjects (70 percent) scored the maximum value of 6 (44 positive deviations and 5 negative deviations of 6 from the midpoint).

The picture is similar for the evaluation of music that triggers personal memories. Most ratings cluster around the endpoints of the scale, although only two musical selections were rated below the midpoint of the scale, and 41 subjects (59 percent) attain the maximum deviation from the midpoint.

The median time interval that had elapsed since the personal experience first occurred was 2 years, but for some people it was as short as a week and for others as long as 14 years. Subjects also indicated that the recollection of a personal experience brought about by the piece of music was rather vivid and emotional (means of 6.0 and 5.6, respectively, on seven-point scales). Furthermore, subjects tended to

TABLE 2
Correlations among phenomenological characteristics

Feelings toward music	1.00						
Feelings toward experience	0.68	1.00					
Pastness of experience	-.20	-.06	1.00				
Vividness of recollections	0.20	0.13	-.15	1.00			
Emotionality of recollections	0.44	0.32	-.40	0.35	1.00		
Reliving of original experience	0.39	0.22	-.24	0.34	0.56	1.00	
Imagery during recollections	0.15	0.14	-.16	0.54	0.39	0.41	1.00

Note: Correlations greater than 0.20 are significant at $\alpha=0.05$ (one-tailed).

relive the original personal experience when they heard the piece of music (mean of 5.2) and reported that the recollection was often accompanied by imagery descriptive of the original experience (mean of 5.8).

Correlations among the various measures discussed in the foregoing paragraphs are presented in Table 2. Subjects' evaluations of the piece of music and of the personal experience associated with it are strongly correlated at 0.68, which lends some preliminary support to the notion that feelings aroused by listening to music may sometimes derive from feelings associated with an autobiographical episode that the piece of music evokes. Table 2 also indicates that the more vivid and emotional the recollections triggered by a piece of music are and the greater the extent to which people relive the original experience, the more positive the evaluation of the piece of music will be.

Analysis of Experiential Emotions

Correlations were computed among Russell's 28 affect terms on which subjects rated the affective qualities of the personal experience they had recalled, and the resulting correlation matrix was subjected to a nonmetric multidimensional scaling analysis using the program KYST (Kruskal and Wish 1978). The stress values for one-, two- and three-dimensional solutions were 0.16, 0.11, and 0.06, respectively; the two-dimensional structure yielded the most interpretable solution, however, and it is depicted in Figure 1.

It can be seen that the 28 affect terms fall roughly into a circular order. With the exceptions of tired and bored, whose positions do not fit the hypothesized pattern, the structure proposed by Russell (1980) is replicated quite well. The horizontal axis reflects pleasure-displeasure and the vertical axis indicates degree of arousal.

Analysis of Musical Emotions

Correlations were also computed among the 24 emotional descriptors of music, and the resulting correlation matrix was subjected to a nonmetric multidimensional scaling analysis. The stress values in one, two, and three dimensions were 0.17, 0.11, and 0.06, respectively, and the two-dimensional structure yielded the most interpretable solution. The results are shown in Figure 2.

The hypothesized circular order is not obtained as clearly for the musical emotions as it was for the experiential emotions, but the arrangement of the 24 musical adjectives corresponds roughly to prior expectations. The horizontal axis again reflects pleasure-displeasure and the vertical axis indicates degree of arousal.

Correspondence between Experiential and Musical Emotions

In order to assess the degree of correspondence between the affective qualities descriptive of a personal experience and the emotional tone ascribed to a piece of music, it was necessary to reduce the number of experiential and musical emotions to a more manageable number. Principal components analysis was used to accomplish this.

For the experiential emotions, five factors had eigenvalues greater than one and together accounted for 72 percent of the total variance. After performing an oblique rotation (PROMAX), the five factors were defined by the following items: EXPPEMOT-I (aroused, excited, delighted, happy, pleased, glad, satisfied); EXPPEMOT-II (serene, content, at ease, relaxed, calm); EXPPEMOT-III (sleepy, droopy); EXPPEMOT-IV (tired, bored); and EXPPEMOT-V (astonished, gloomy, miserable, frustrated, distressed, annoyed, afraid, angry, tense, alarmed). The items defining a given factor were summed up and the reliabilities of the five composites are shown in the appropriate diagonal of Table 3. The items 'sad' and 'depressed' were not included in any of the composites because they had large negative loadings on the first factor and did not load very highly on any of the other factors.

For the musical emotions, four factors had eigenvalues greater than one and together accounted for 71 percent of the total variance. After performing an oblique rotation, the four factors were: MUSEMOT-I (vigorous, majestic, triumphant, exhilarating, graceful, dignified); MUSEMOT-II (exalted, merry, joyous, cheerful, light, playful, longing); MUSEMOT-III (passionate, tranquil, soothing, sentimental, dreamy); and MUSEMOT-IV (quiet, mournful, tragic, doleful, serious, solemn). The items defining each factor were again summed up and the reliabilities of each composite are shown as the diagonal entries in Table 3. It is apparent that the five experiential and the four musical emotion factors correspond closely to

FIGURE 1
Multidimensional Scaling Solution for 28 Experiential Emotions

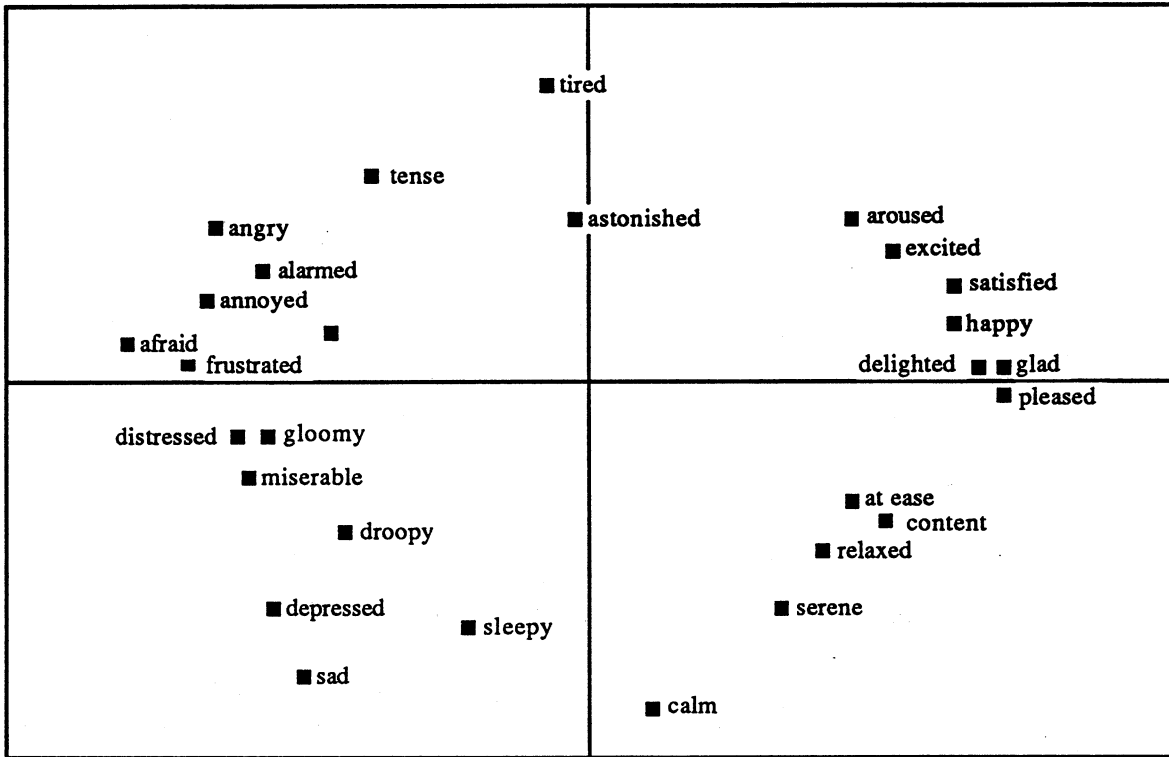


FIGURE 2
Multidimensional Scaling Solution for 24 Musical Emotions

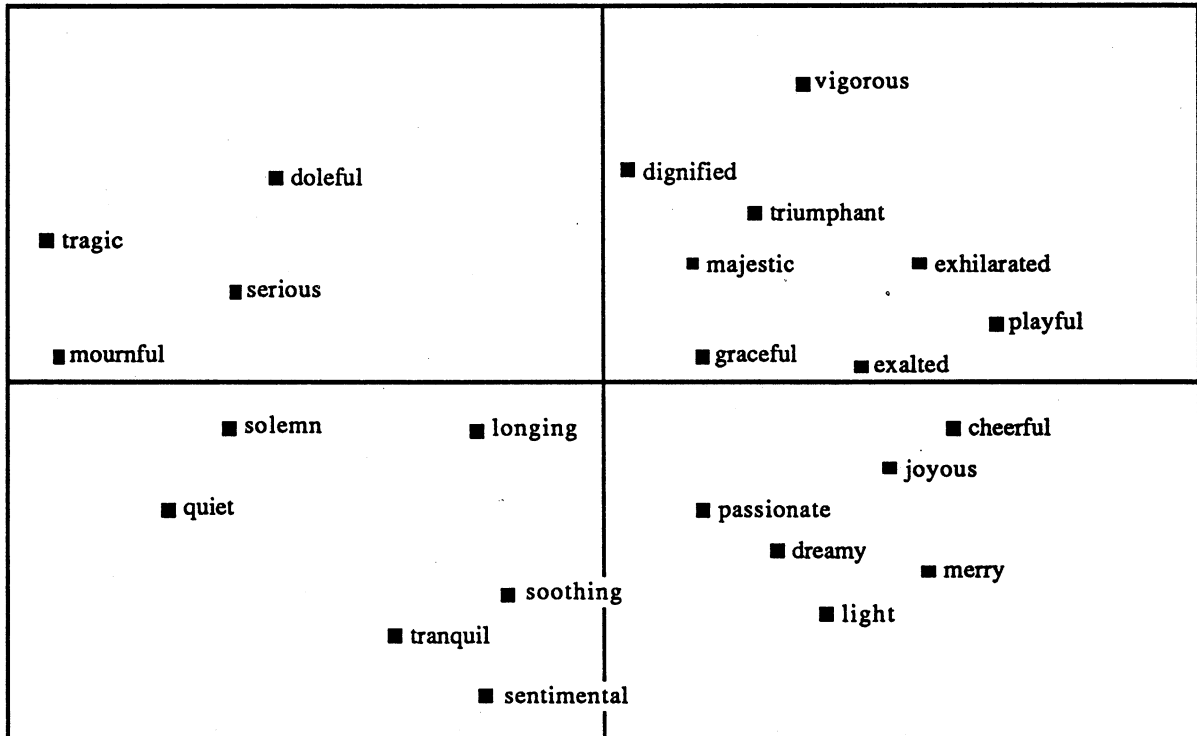


TABLE 3
Correlations among the five experiential and the four musical emotion factors

	EXPEMOT					MUSEMOT			
	I	II	III	IV	V	I	II	III	IV
EXPEMOT-I	0.95								
EXPEMOT-II	0.55	0.81							
EXPEMOT-III	-.22	-.06	0.76						
EXPEMOT-IV	-.04	-.05	0.48	0.70					
EXPEMOT-V	-.42	-.24	0.43	0.33	0.91				
MUSEMOT-I	0.59	0.45	0.03	0.09	-.06	0.90			
MUSEMOT-II	0.81	0.52	-.14	-.11	-.28	0.70	0.89		
MUSEMOT-III	0.53	0.71	0.04	-.09	-.23	0.55	0.60	0.85	
MUSEMOT-IV	-.36	0.16	0.46	0.15	0.57	0.04	-.23	0.31	0.88

Note: Correlations greater than 0.23 are significant at $\alpha=0.05$ (two-tailed).

Diagonal entries are the reliabilities of each composite.

the way affect terms cluster together in the multidimensional scaling solutions.

Besides the correlations among the five experiential emotion factors and the four musical emotion factors, Table 3 also exhibits the cross-correlations among the two sets of factors. It is apparent that the emotional tone ascribed to a piece of music follows the affective characterization of the personal experience that the music evokes. If the autobiographical episode was described as exciting and happy (using the items with the highest loadings to define a factor, in this case EXPEMOT-I), subjects tended to characterize the music primarily as merry and longing (MUSEMOT-II), but also as majestic and triumphant (MUSEMOT-I) and tranquil and soothing (MUSEMOT-III). If the original experience was perceived as serene and calm (EXPEMOT-II), the piece of music was described predominantly as tranquil and soothing, but also as merry and longing and majestic and triumphant. Finally, if the affective qualities of the personal experience were called sleepy and droopy (EXPEMOT-III) or alarmed, astonished, and distressed (EXPEMOT-V), the music that triggered such recollections was characterized as mournful and doleful (MUSEMOT-IV).

Although the terms 'sad' and 'depressed' did not define a separate factor or load highly on EXPEMOT-IV, the two items were correlated 0.74 and had a correlation of 0.55 with EXPEMOT-IV. Furthermore, the composite of sad and depressed was correlated 0.68 with MUSEMOT-IV.

DISCUSSION

The results of this study suggest that the subjects who participated in this research had experienced a situation in which a piece of music had become associated with an event from their lives so that hearing the piece of music evoked memories of the original episode. Most of the instances of this phenomenon reported by undergraduate marketing majors involved relationships with past or present lovers or experiences with family and friends, and

although some people described unpleasant episodes, overall there was a significant bias toward remembering happy events. Most personal experiences for which the phenomenon occurred were strongly affectively charged, and the recollections triggered by the music were described as vivid and emotional and as involving a reliving of, and being accompanied by imagery descriptive of, the original episode.

The results of the study also indicate that the emotional tone ascribed to a piece of music is a function of the affective characteristics of the personal experience with which the music is associated. First, there was a fairly strong correlation between a person's evaluation of the piece of music and his or her evaluation of the autobiographical episode. Second, there was more specific evidence that people's ratings of the affective characteristics of the personal experience corresponded to the feelings induced by hearing the piece of music.

How does the research reported in this paper relate to similar work in consumer behavior? There has recently been a flurry of research on the effects of music on consumer behavior (see the review by Bruner 1990 and the more recent papers by Alpert and Alpert 1991, Kellaris and Kent 1991, Scott 1990, Wallace 1991, and Yalch 1991). These papers deal with a variety of important issues relating to the use of music in marketing (music as an affective background in ads, music as a mnemonic device, music as a communicator of meaning, etc.), but they are not particularly pertinent to this study.

Two other streams of research are more relevant to the present concerns. One is the work by Baumgartner, Sujan, and Bettman (in press) on the role of consumers' autobiographical memories in information processing (see also Thorson and Friestad 1989). In a series of studies, Baumgartner et al. (in press) show that consumers' autobiographical memories involving products and product usage experiences are affectively charged and that the retrieval of these memories influences ad and brand

evaluations. The present study indicates that some pieces of music may be rather effective in cuing autobiographical memories and that the recollections triggered by music are strongly, and generally positively, affectively charged. This suggests that music in advertising may impact ad and brand evaluations through the retrieval of autobiographical memories. Although there was a lot of diversity with respect to the pieces of music for which subjects reported recollections of autobiographical events, the present study does not allow drawing conclusions about how frequently associations with popular pieces of music are formed. A fruitful avenue for future research would thus be to investigate whether the inclusion of well-known tunes in ads triggers memories of past personal experiences which arouse emotions beyond what would be predicted from the mere popularity of a piece of music.

A second area of research that deals with issues similar to the present concerns is the work of Holbrook and Schindler (1991) and Havlena and Holak (1991) on nostalgia. Nostalgia is often defined as a "yearning for the past" and refers to the "bittersweet" memories people have of past personal experiences (frequently from the period of adolescence and early adulthood). As noted by Havlena and Holak (1991), there has recently been a boom in the use of nostalgia in marketing, and advertisers often try to evoke nostalgic feelings through music, jingles, and other stimuli. In a study dealing with the development of musical tastes, Holbrook and Schindler (1989) found that subjects expressed the strongest liking for music that was popular when they were in their early twenties. The authors argue that one reason for this peak in preference in early adulthood might be that people associate pieces of music from this time with emotionally powerful events such as fraternity parties, school dances and other social gatherings. Many of the associations reported by subjects in the present study may be classified as nostalgic recollections of past events, and the results show that most memories are "sweet" rather than "bitter." Furthermore, the participants in the study were all juniors or seniors and thus in their early twenties, and most of them (78 percent) described pieces of music that had been popular, and experiences that had occurred, during the previous four years. Given that the music tended to take on the emotional tone of the personal experience with which it was associated and given that most episodes recalled were happy events, the present findings suggest that preference for popular music, especially when tracked over time, may not be a function of the music per se, but a consequence of the personal associations people have with the music.

The research reported in this paper only scratches the surface of many of the issues raised. Furthermore, several limitations of the study should be kept in mind. First, the findings that emerged are based on data from a relatively small sample of undergraduate marketing majors, they are correlational in nature, and they may not generalize to other segments of the population. Second, instances of the phenomenon of indexical induction of emotions through music were self-selected, and the ratings of

both the affective qualities of the personal experience triggered by music and the emotional tone of the piece of music associated with the personal experience were collected at the same point in time, which could have increased the correspondence between the experiential and musical emotions. One way of overcoming this deficiency would be to obtain ratings of the emotional tone of the piece of music at a later point in time and to mask the connection to the earlier study by gathering data on several pieces of music. Third, the structure underlying Hevner's (1936) shortened instrument for the measurement of musical emotions was not very clear-cut and more research seems necessary to refine the list of adjectives. Furthermore, since the Russell (1980) and Hevner (1936) instruments probably do not measure the emotions associated with a personal experience and a piece of music equally well, the correlations reported in Table 3 should be interpreted with care. If the research were conducted in two waves, the same scale could be used for the assessment of the affective quality of a personal experience and the emotional tone of the piece of music and this problem could be circumvented. The present findings are preliminary, but the results thus far look encouraging and the phenomenon of indexical induction of emotions through music is interesting so that further investigation of the topic seems warranted.

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A Framework Providing Direction for Research on Communications Effects of Mental Imagery-Evoking Advertising Strategies

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ABSTRACT

The authors review mental imagery research related to advertising strategy and observe that both within- and across-strategy research is lacking. A framework positing predictor, criterion, mediator and moderator variables is proposed as an appropriate frame of reference. The mediating role of mental imagery between advertising strategy alternatives and communications effects is highlighted, and while some scale development has taken place, a rigorous scale development process, along with the recommended framework, could lead to much better understanding of the consumer information processing dynamics involved with imagery-evoking advertising strategies.

INTRODUCTION

Much of the research into the methods by which consumers process information has concerned itself with what is termed "discursive processing" (MacInnis and Price 1987). This style of processing inquires into how language and symbols are manipulated in memory to perform some function such as solve problems, create or change attitudes, or be stored for later retrieval. Recently, however, there has been interest in mental imagery as a provocative method of information processing (See MacInnis and Price 1987; Lutz and Lutz 1978; Childers and Houston 1982, for example). Lutz and Lutz (1978) have defined imagery as "a mental event involving visualization of a concept or relationship." On the other hand, MacInnis and Price (1987) describe imagery as a "conceptually distinct way of representing information." They further stress that imagery is: "...(1) a process...by which (2) sensory information is represented in working memory." Childers and Houston (1982) state that various forms of imagery can be experienced, including stimuli represented by each of the five senses: hearing, touch, taste, smell, and visualization.

While the research on the conceptual and applied aspects of imagery theory is embryonic, initial theoretical implications and empirical findings indicate a rich domain for consumer research, especially in an advertising context. MacInnis and Price (1987) recently reviewed research on imagery as it relates to information processing. They indicate a need for further work on imagery's role in a marketing context stating that although imagery is pervasive, little is known about its impact relative to consumption. They further recommend that factors controlled by marketers to influence consumer imagery should be investigated due to their potential effects on product information processing and purchase behavior.

The general purpose of this paper is to review imagery research that relates to advertising and to provide directions for future consumer research in this area. Specifically, imagery-evoking strategies that can be used in advertisements are reviewed and gaps in our knowledge are revealed. We posit an appropriate framework which identifies the categories of factors which should be addressed in future empirical research, and we discuss the variables in each category which pertain to advertising strategy. Based on this framework and our review of prior mental imagery research, we propose a systematic program of research which should lead to enlightenment in this area.

IMAGERY-EVOKING ADVERTISING STRATEGIES

MacInnis and Price (1987) discuss four imagery-evoking strategies: pictures, concrete words, instructions to imagine, and guided imagery. These were gleaned from Lutz and Lutz (1978) and Alesandrini and Sheikh (1983), and the first three were advocated as advertising strategies by Rossiter (1978). These works, in turn, were compiled primarily from the psychology literature. For example, Paivio (1970) enumerates the typical types of imagery manipulation as concrete stimuli, instructions, and the selection of subjects based on individual imagery capability, and Wollman (1981) discusses the use of guided imagery in studying social psychological phenomena. In sum, there is a substantial base of literature that holds there are different types of imagery-evoking strategies. However, with the exception of Slee (1978), no studies have examined whether there are differences between these strategies. Slee examined the differences among the use of concrete words, instructions to imagine, and individual differences as imagery-evoking strategies and found that each type of strategy caused different effects on memory.

Guided imagery is an intrusive, clinical method of stimulating mental visualization and does not fit an advertising context well; however, the remaining three strategies enumerated by Rossiter (1978) and MacInnis and Price (1987) are viable alternatives for both print and broadcast media and could be compared separately and/or in combination to determine differential impacts on (e.g.) memory and brand attitudes. Although scant empirical evidence exists, practitioners continue to design advertisements with these components. In fact, in a normative paper, Rossiter (1978) states, "high imagery visuals work far better than instructions to imagine" (p. 102). Thus, it is apparent that empirical investigation seems warranted to address the question of the relative efficacy of alternative imagery-evoking strategies.

Pictures

Pictorial material is defined as "any two-dimensional representation in which the stimulus array contains at least one element that is not alphabetic, numeric, or arithmetic" (Lutz and Lutz 1978, p. 611). As such, photographs, drawings, and illustrations fall under the rubric of pictures. It is believed that pictures influence the process of mental imagery (Bugelski 1983; Paivio 1971; Rossiter 1978; Shepard 1967). The picture superiority effect, which contends visual information is remembered over verbal information, has been explained through imagery by Paivio's (1986) dual code theory. The theory posits that not only do pictures activate a visual encoding process, but they also activate a verbal encoding process. Moreover, the visual code is thought to be qualitatively superior to the verbal code. So two retrieval paths can be activated at the time of recall. Words, on the other hand, activate only a verbal encoding process, resulting in poorer recall. (However, certain words can also stimulate mental imagery as is discussed under concreteness of wording.)

Pictures can be classified according to the level of concreteness and the degree of interaction depicted. Concreteness can range from very concrete and realistic to abstract (Rossiter and Percy 1983). A concrete picture is one that is easily identifiable of a person, place, or object; whereas, an abstract picture is one not easily identifiable (Rossiter and Percy 1983). For example, an advertisement containing a picture of a product is more concrete than one that contains a silhouette. Moreover, the elements within a picture can also be interactive or noninteractive in nature (Lutz and Lutz 1977, 1978). An interactive picture is one in which persons and/or objects are figurally integrated in such a manner as to be associated in some mutual or reciprocal action; whereas, a noninteractive picture depicts the items side by side (Alesandrini and Sheikh 1983).

While studies have analyzed the impact of concrete, abstract, or no pictures (e.g., Mitchell 1986; Mitchell and Olson 1981) and interactive versus noninteractive pictures (e.g., Lutz and Lutz 1977), no study has examined the impact of a range of pictures. For complete disclosure, it is necessary to examine the relative effect sizes of all types of pictures, concrete/interactive, concrete/noninteractive, abstract, and no pictures, on imagery processing.

Words

Compared to abstract words, concrete words are more likely to elicit a mental image in the mind of the viewer/listener because of their higher "imagery value." By asking individuals to rate words with respect to their ease of arousing sensory images, imagery values have been established for nouns (Paivio, Yuille, and Madigan 1968), for verbs (Lippman 1974), and for 1,000 frequently-used words (van der Ver 1975). For example, it is easier to form an image given the concrete word "dog" than it is given the abstract word "justice." There is evidence indicating the positive effects of concrete words on memory (Paivio 1969). The effectiveness of concrete

wording on memory and attitudes has been well-substantiated in the literature (see Lutz and Lutz 1978 for a review). In a normative paper, Rossiter (1978, p. 101) states, "High imagery words should be used in advertising," and it has also been shown in an advertising context that ads containing concrete versus abstract wording resulted in more positive attitudes toward the ad and brand as well as greater behavioral intentions (Burns, Biswaw, and Roach 1991). Still, the comparative or combined impacts of word types with picture types and/or instructions to imagine remain elusive.

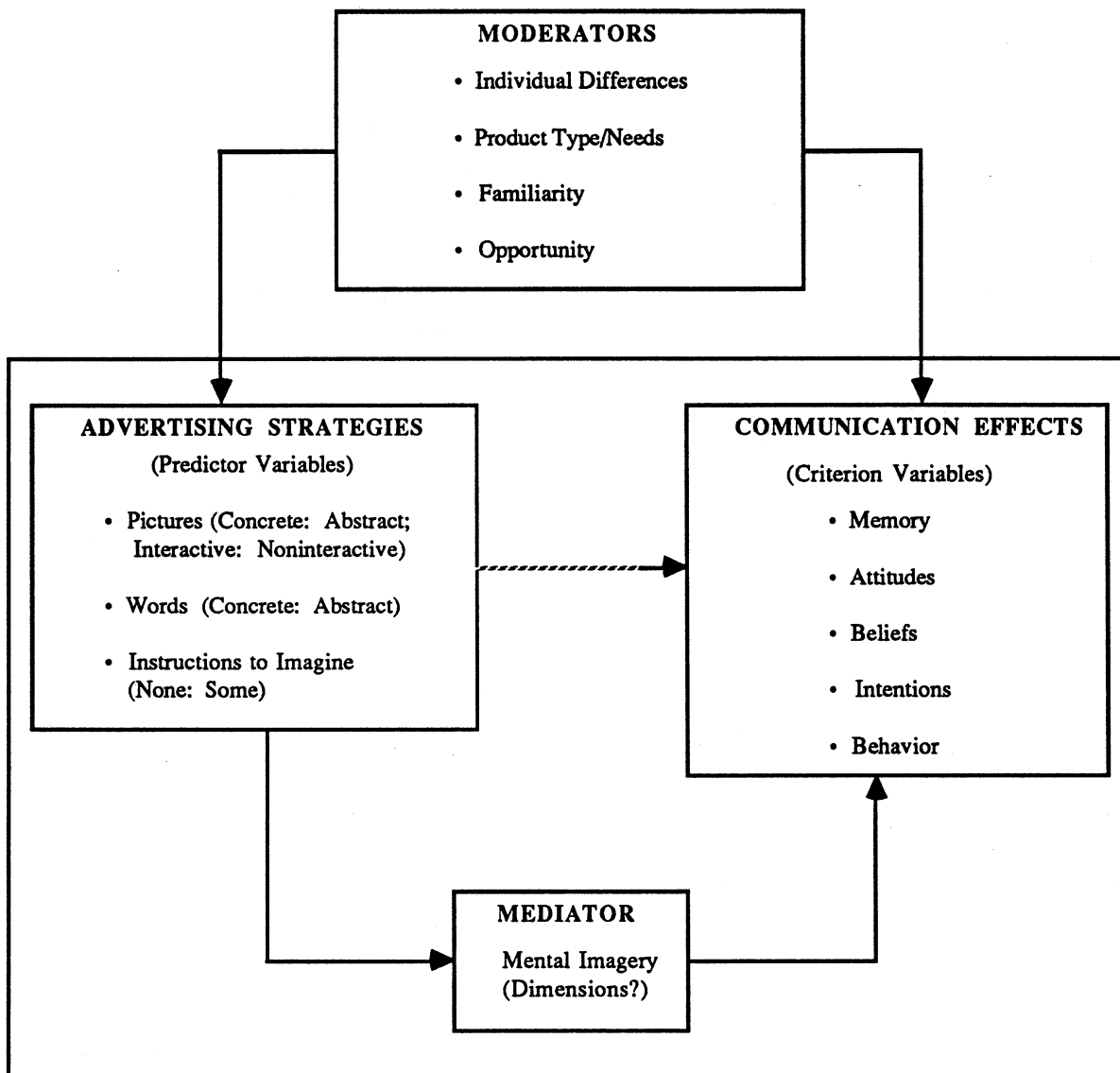
Instructions to Imagine

This imagery-evoking strategy is the most direct way to encourage imagery processing. Typically, instructions to imagine have involved the experimenter giving instructions to the subject to form mental images, especially in studies in psychology. Subjects are told to "form a mental picture..." or to "picture yourself in the situation."

Embedding instructions to imagine within a message stimulus is a viable alternative for advertising. A few researchers have analyzed the effects of embedding instructions to imagine within a promotional message, but results have been mixed. For example, Wright and Rip (1980) manipulated instructions to imagine included within a message stimulus given to high school sophomores concerning colleges. However, they failed to achieve significant differences on attitudes. The lack of effect could have been due to subjects' inability to imagine the scenarios described because they did not possess adequate knowledge structures about colleges to facilitate imagery (MacInnis and Price 1987). In a study by Gregory, Cialdini, and Carpenter (1982), subjects were given information concerning cable television, and the experimental group received a message with instructions to imagine included in the message. The experimental group exhibited more positive attitudes, greater behavioral intentions, and had a greater subscription rate than the control subjects. However, one factor other than the instructions to imagine may have caused the results. In the information-only condition the message did not target the respondent in the scenario, while the imagery-only condition did. Thus, the imagery condition was also self-related, while the information condition was not. It has been found that self-relatedness of an imagery-inducing message influences responses such as likelihood (e.g., Anderson 1983), attitudes, and intentions (e.g., Bone and Ellen 1990). Therefore, the messages were not equivalent with respect to self-relatedness, and this could have been the casual factor for the differences found.

Paivio (1971) reviewed several studies on experimenter-provided mental imagery instructions and concluded that such instructions facilitate learning. Another advantage of instructing the viewer to form his/her own mental image as opposed to providing a picture for them is that the self-generated mental imagery will probably be more personally relevant. This could result in self-generated persuasion and stronger attitudes (MacInnis and

FIGURE 1
 Framework for Imagery-Evoking Advertising Strategy Research



Jaworski 1989). While Rossiter (1978) states, "high imagery visuals work far better than instructions to imagine," no wholly adequate empirical study has been performed to test this proposition. Thus, there is need to assess the mental imagery-generating potential of instructions to imagine embedded within an advertising message.

A FRAMEWORK FOR IMAGERY-EVOKING ADVERTISING STRATEGY RESEARCH

A fundamental shortcoming of almost all studies to date is that instead of assessing imagery processing, researchers have relied on criterion-based responses (MacInnis and Price 1987). Typically, an imagery-evoking strategy is manipulated, and imagery processing is inferred from the results such as memory

differences. Thus, it is assumed that imagery processing was the causal factor in the positive responses for the imagery-evoking condition. While pragmatic, this approach affords little with regard to insight and understanding. Figure 1 offers a research framework to overcome the inherent shortcomings of prior research. The Figure draws conceptually from comments by Baron and Kenny (1986), who distinguish between moderator and mediator variables in social-psychological research. As can be seen, the three classes of imagery-evoking advertising strategies are cast as independent variables. Communications effects such as recall, attitude, brand beliefs, and intentions are posed as the dependent variables, while mental imagery itself is positioned as mediating the effects of predictors on criterion variables.

A mediator functions by accounting for some or all of the relationship between a predictor and a criterion. Thus, mental imaging serves as a cognitive process bridge between independent and dependent variables. Moderators, on the other hand, affect the direction and/or strength of the relationships between predictor, mediator, and/or criterion. As just noted, no research to date has posited mental imagery as a mediator of advertising strategy on communications effects variables, nor have most studies utilized a moderator designation to investigate conditions under which empirical relationships do or do not hold. (See Baron and Kenny (1986) for complete discussion of mediators, moderators and recommended analytical procedures.)

COMMUNICATION EFFECTS

Given this framework, it is useful to briefly discuss the criterion variables of interest to those experimenting with the various imagery-evoking advertising strategies described earlier. While memory plays an important role in brand awareness, beliefs, attitudes, intentions, and purchase behavior are also major communication effects for advertising research (Rossiter and Percy 1983). Some studies in marketing have examined the effect of an imagery-evoking strategy on recall and recognition of brand names (e.g., Childers and Houston 1984; Childers et al. 1985; Houston et al. 1987; Lutz and Lutz 1977; Robertson 1987) or message recall (Gardner and Houston 1986). Other studies have examined the impact of some imagery-evoking strategy on attitude toward the product or brand (e.g., Bone and Ellen 1990; Burns et al. 1991; Gregory et al. 1982; Kisielius and Sternthal 1984; Mitchell 1986; Mitchell and Olson 1981; Oliver et al. 1990; Rossiter and Percy 1978, 1980; Wright and Rip 1980), attitude toward the ad (e.g., Bone and Ellen 1990; Burns et al. 1991; Mitchell 1986; Mitchell and Olson 1981), behavioral intentions (e.g., Burns et al. 1991; Gregory et al. 1982; Kisielius and Sternthal 1984; Mitchell 1986; Mitchell and Olson 1981; Rossiter and Percy 1978, 1980; Oliver et al. 1989), and actual behavior (e.g., Gregory et al. 1982).

Whereas awareness, attitudes, and intentions have been studied in imagery applications, only a handful of studies have investigated imagery and product beliefs (e.g., Mitchell 1986; Mitchell and Olson 1981), and these have primarily manipulated pictures as the imagery-evoking strategy. It can be speculated that different imagery-evoking strategies will result in differential beliefs about the brand advertised. Furthermore, one imagery-evoking strategy may result in a greater number of beliefs as well as different brand belief strengths. This is an area that needs further research, and, as with all other criterion variables, there must be increased concern for comparisons across imagery-evoking strategies.

MEASURING IMAGERY PROCESSING

Researchers familiar with this area will readily agree that the measurement of mental imagery has been a major hinderance. There have been various approaches to measuring imagery processing, but

only one holds good promise. From psychology, one method involves interrupting an individual involved in imagery processing, which is referred to as "thought sampling" or "event sampling" (Klinger 1978). Another, called Experiential Analysis Technique (EAT), involves videotaping individuals as they are imagining and later having them interpret the video (Sheehan et al. 1983). Physiological measures have also been used to assess imagery processing. Finally, pencil and paper assessment of imagery processing has also been attempted, which incorporates manipulation checks and scales.

In general, research in psychology has not really succeeded in measuring imagery processing. The attempts are, at best, performed as manipulation checks and can be classified into three groupings: (1) asking subjects to rate the vividness of their imagery (e.g., Rigney and Lutz 1976); (2) asking subjects what learning strategy they had used (e.g., Elliott 19733); or (3) checking the subject-provided written or verbal record of what they had done (e.g., Anderson 1983).

In marketing, measurement attempts can be grouped into: (1) manipulation checks (e.g., Lutz and Lutz 1977); (2) protocols (e.g., Rethans and Hastak 1982; Smith et al. 1984); or (3) scales (e.g., Bone and Ellen 1990; Ellen and Bone 1990; MacInnis and Price 1990; Oliver et al. 1989). Except for Ellen and Bone (1990), however, useful conceptualization and scale development of imagery processing has been lacking.

Ellen and Bone (1990) provide the only systematic attempt to develop a scale to measure stimulus-evoked imagery processing. They proposed that communication-evoked imagery may be reflected in five dimensions: vividness and/or clarity, quantity, ease, and links experienced from the message, but they empirically determined four dimensions in which the quantity and ease dimensions were considered as one. However, careful review of their work reveals they did not adhere to rigorous scale development methodology such as that set forth by Churchill (1979). First, the authors did not generate a large inventory of items to begin with; indeed, they started and ended with 19 items. Second, they used radio ads from a previous study as stimuli (see Bone and Ellen 1990), which may have resulted in demand characteristics since six out of the seven ads were high imagery-evoking ads beginning with the statement "Imagine this." It may be more appropriate to use a spectrum of stimuli that range from high to low imagery-evoking characteristics. Finally, the authors only collected data once to develop the scale (although they did use two studies with one data collection each). This procedure is inconsistent with the framework proposed by Churchill (1979) in which new data is recommended to purify the measure and assess validity.

Nonetheless, the work of Ellen and Bone (1990) provides an excellent starting point. They propose reasonable dimensions derived from the conceptual and empirical literature from which to begin proper scale development. Because it is a pregnant mediator construct, assessment of imagery processing is necessary in any study, particularly those in an advertising context. Thus, there is a need

for an acceptable scale to measure mental imagery processing, and the best method for developing one involves a rigorous and systematic effort.

MODERATORS

Not only are the effects of different imagery-evoking strategies on imagery processing and advertising communication variables an area for future research, but the moderating natures of several variables have yet to be explored satisfactorily. Variables such as individual differences in imagery processing and knowledge structures (i.e., familiarity with the product or brand advertised), needs tapped by the advertisement and/or product, and the opportunity for imagery processing may influence the effectiveness of an imagery-evoking strategy.

Individual Differences in Imagery Processing

Individual differences in imagery processing have received attention in a number of studies. The areas of interest are studies of individual differences in (1) spatial ability, (2) imagery ability, (3) imagery content, and (4) processing style. These dimensions of individual differences have been studied both for their direct and indirect roles on the processing of information, but the majority of studies have treated individual differences in imagery ability, imagery content, and/or processing style as predictor variables. Several scales exist to measure individual differences in imagery processing (for a review, see MacInnis (1987) and Sheehan et al. (1983)).

Imagery ability refers to the vividness and controllability of an individual's mental imagery (MacInnis 1987). Vividness refers to clarity of the mental imagery, while control implies an individual's ability to perform manipulations such as mental rotations (Childers et al. 1985). These dimensions focus on one's cognitive ability as the determinant of the type of processing strategy evoked. Ability has typically been treated as a predictor variable (e.g., Childers et al. 1985; Marks 1973; McKelvie and Demers 1979; Oliver et al. 1989; Slee 1978) or as a covariate (e.g., Childers and Houston 1984; Sheehan 1966), but results have been mixed. Thus, no conclusions can be drawn regarding the moderating effect of imagery ability on the relationship between imagery-evoking strategies and imagery processing or communication effects.

Individuals also differ with respect to the general content of their images and fantasies as well as their use of imagery in everyday life. This construct reflects individual tendencies to engage in vivid imagery, to use imagery to plan the future, and to engage in fantasy (MacInnis and Price 1990). Very few researchers, however, have studied this individual difference variable, and those who have (e.g., MacInnis and Price 1990), have found disappointing results.

Similar to imagery ability, style of processing (or processing preference) has been examined in several marketing studies. In contrast to imagery ability, however, it has received more support as being effective as a predictor variable (e.g., Childers

et al. 1985; Gould 1990; Holbrook et al. 1984; Oliver et al. 1989; Rossiter and Percy 1978). While imagery ability and style of processing may appear to be similar constructs, Richardson (1977) argues that they are independent dimensions, and Childers et al. (1985) provide support for this argument. Ability refers to an individual's basic cognitive ability, but preference for using a specific processing style (i.e., verbal) or imagery (i.e., visual) reflects one's tendency to utilize one type of processing style more than others. More specifically, Childers et al. (1985, p. 130) conceptualize processing style "as a preference and propensity to engage in a verbal and/or visual modality of processing." Thus, while an individual may possess a strong imagery or verbal ability, he/she may be indifferent as to the style of processing preferred. Indeed, Betts (1909) found that most, if not all, individuals possess some imagery ability and can image when asked to do so. Therefore, processing preference may be the superior, differentiating individual difference moderating variable.

Product Type and Needs

The type of product advertised may well influence imagery processing. Some products may be considered as strictly utilitarian in nature, and may discourage imagery processing. This could have been the reason Oliver et al. (1989), who used a high-tech computer printer, failed to find significant results. This type of product may have a low imagery-evoking ability, and using an imagery-evoking strategy may be disappointing unless unusually creative. Thus, a typology of products based on their imagery-evoking potential would be useful to advertisers and researchers alike.

The type of need evoked by an advertisement may enhance or dampen imagery processing. MacInnis and Jaworski (1989) posit that needs, either utilitarian or expressive, may moderate the relationship between exposure to the ad stimulus and the level of brand processing. If rather concrete in nature, a product advertised through strictly utilitarian benefits may not generate the elaborative processing necessary for mental imagery to be effective. On the other hand, a product advertised through more emotional, expressive needs may encourage mental imagery. Both product type and need configuration are potential moderator variables deserving attention.

Knowledge/Familiarity

Familiarity with the stimulus affects the quality of imagery. MacInnis and Price (1987) contend that imagery processing relies on prior knowledge for both the ability to visualize and the vividness of such visualization. This claim is also made by Smith et al. (1984) and alluded to by Wright and Rip (1980). The point here is that mental visualization requires some prior knowledge of the stimulus being imagined, and the more familiar one is with the stimulus object, the richer is the base from which images will spring. Scant research (Burns et al. 1991) has addressed this factor. It remains unknown as to what extent familiarity moderates mental imagery.

Opportunity

Another moderating variable that may influence the effect of imagery-evoking strategies is the opportunity to image (MacInnis and Jaworski 1989). While many studies have used print ads as stimuli (Burns et al. 1991; Childers and Houston 1984; Childers et al. 1985, 1987; Lutz and Lutz 1977; Rossiter and Percy 1978, 1980; Wright and Rip 1980), only one has used radio ads (Bone and Ellen 1990). Though it has been pointed out in the literature that, *ceteris paribus* (i.e., involvement in processing the medium), imagery strategies presented aurally may be more effective than written imagery strategies (Alesandrini and Sheikh 1983; Lutz and Lutz 1977), no study has examined this issue empirically. This assertion was based on the interference work done by Brooks (1967), in which two visual tasks interfered with each other. Experiments performed by Salthouse (1975) also indicate an interference effect when two simultaneous tasks both involved either verbal information or spatial information but not when one task was verbal and the other spatial. Clearly, because mental imagery requires some degree of effort, the opportunity factor should be factored into future research designs.

DIRECTIONS FOR FUTURE RESEARCH

Several avenues for future research are apparent from this review. First, the relative efficacy of different imagery-evoking strategies has yet to be explored satisfactorily. Both intra-strategy and across-strategy comparisons must be assessed. For example, while it is well-known that including pictures in an advertisement is more effective than not including pictures, the type of picture included has not been examined. Based on past studies, it would seem that a concrete/interactive picture would be more effective than an abstract picture. Not only are pictures useful for eliciting imagery in advertisements, but instructions to imagine should elicit imagery processing and influence communication effects. However, only a few studies have included instructions to imagine within a message stimulus, and results have been mixed. Additionally, it would be interesting to examine whether or not instructions to imagine could supplant pictures, thus making the use of pictures unnecessary. If this could be done, then costs associated with the advertisement could be reduced by not including pictures.

Second, whereas awareness and attitudes have been widely examined as dependent variables, beliefs, behavioral intentions, and actual behavior have not. Although a hierarchy of effects implicitly underlies most advertising strategy, the nuances of mental imagery may obviate a smooth progress. In short, until a complete array of communications effects is investigated, the total consequences of these strategies will not be properly researched.

Third, the examination of imagery processing as a mediating variable between imagery-evoking strategies and communication effects is an area for future research. To examine the effect of imagery-evoking strategies on imagery processing, an

acceptable scale to assess imagery processing is necessary. Scale development could begin with the dimensions proposed by Ellen and Bone (1990), and then the mediating role of those dimensions could be examined. Only by measuring the quality and quantity of mental imagery can we hope to understand how criterion variables are affected.

Fourth, the effect of several moderating variables should be explored. Individual differences in imagery processing, particularly processing preferences, may moderate the effectiveness of an imagery-evoking strategy. If so, identifying individuals with different processing preferences would be of interest to advertisers. Thus, demographic and psychographic profiles of these individuals will provide insight into whether or not it would be profitable to segment based on this individual difference variable. Needs expressed in the advertisement or inherent in the product itself may also moderate the effectiveness of an imagery-evoking strategy. Furthermore, from a research point of view, a typology of products based on perceived need, and hence imagery-evoking value, would be useful when designing experiments to examine the effect of imagery-evoking strategies on imagery processing and communication effects. Researchers and advertisers must also be aware that familiarity with the product stimulus plays a moderating role. Asking audiences to imagine using a product may be not be effective if they are not sufficiently familiar with the product class. Finally, the opportunity to imagine may be another moderating variable that holds implications as to the appropriate medium for a given imagery-evoking strategy. For example, instructions to imagine may be more effective for radio advertisements because there is no interference from other visual tasks such as reading a print advertisement.

While not exhaustive, this paper has presented several fruitful areas of imagery research in an advertising context. In our view, imagery research, regardless of the context, must adopt the proper framework, and it desperately requires the development of an acceptable scale to assess imagery processing. Conceptualization of relevant dimensions of imagery processing is necessary, followed by rigorous scale development to measure those dimensions. Once done, the "black box" can be opened to provide insight into the processes that mediate the relationships between imagery-evoking strategies and communication effects. Though numerous input-output studies have been performed indicating the effectiveness of imagery, there is a dearth of literature regarding explanations. From a practitioner's perspective, knowing that one strategy is effective may be sufficient, but from a consumer researcher's point of view, understanding why a strategy is effective is the goal.

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Examining Alternative Operational Measures of Internal Reference Prices

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ABSTRACT

Both Winer (1988) and Klein and Oglethorpe (1987) have noted that consumer internal reference price (IRP) is a multi-dimensional construct. Internal reference prices can either be estimated indirectly using scanner data (Winer 1986; Lattin and Bucklin 1989; Kalwani et al. 1990) or measured by asking consumers directly (e.g., Zeithaml and Graham 1983; Bearden and Urbany 1989; Urbany and Dickson 1991). The current paper considers the latter, with a focus on defining different reference price concepts, discriminating between indicators of transaction utility and acquisition utility, and examining how well those indicators explain purchase intentions.

Since first proposed by Emory (1970) and Monroe (1973), the notion that consumers use internal reference prices (i.e., price information stored in memory) in judging product value has become well established. This notion has strong theoretical (cf. Helson 1964; Kahneman and Tversky 1979) and empirical (Winer 1986; Lattin and Bucklin 1988; Kalwani, Rinne, Sugita, and Yim 1990) support, in spite of the fact that many consumers may hold expectations with uncertainty (Urbany and Dickson 1991).

The idea that consumers have and use internal reference prices is neither new nor revolutionary. The more important question currently is *which* kinds of reference prices exist, are measurable, and have the most impact on purchase decisions (see Winer 1988; Klein and Oglethorpe 1987). Internal reference prices have been used in the prediction of consumer brand choice by comparing the price the consumer sees in the current market to the price that s/he expected to be offered (i.e., by calculating price discrepancies). The current research examines how different types of reference price discrepancy terms perform in predicting purchase intentions. We first consider the notion of price discrepancy in more detail.

Price Discrepancy and Consumer Choice

The classic term "sticker shock" may best describe how internal reference prices can influence consumer decision-making. That is, a price that is surprisingly high (higher than the consumer expects) creates disutility and reduces the probability of purchasing that particular brand. Likewise, a price which is lower than expected produces positive utility and increases the likelihood of purchase. These effects have been demonstrated empirically, most impressively in studies using reference prices estimated from scanner data to predict brand choice (Winer 1986; Lattin and Bucklin 1988; Kalwani, Rinne, Sugita, and Yim 1990). In such studies, internal reference prices are estimated as a function of actual previous market prices and, therefore, represent

the prices that panel consumers expect to see charged in the market on a particular purchase occasion.

The price discrepancy terms used in these and other studies (Urbany and Dickson 1991; Bearden and Urbany 1989) have most likely represented what Thaler (1985) calls *transaction utility*. Transaction utility represents the "value of the deal" reflected in a given asking price and is based upon a comparison of the asking price and P^* , an expected or "just" price. Two issues are raised in the current paper:

1. Are certain measures of P^* better than others?
2. Do discrepancy terms based upon reservation price concepts add significantly to the prediction of purchase intentions?

Acquisition Utility

While price discrepancy terms which reflect transaction utility have been found to be significant predictors of purchase intentions and behavior, it seems that transaction utility itself is a fleeting (if important) source of utility for consumers. For example, positive transaction utility often is simply a perceived windfall which either encourages a consumer to enter the market or to choose one brand over another. However, the consumer's choice is ultimately based upon some evaluation of the product's ability to produce value and create utility relative to the price to be paid (e.g., "get" relative to "give") (Ahtola 1984). Thaler (1985) proposed that the construct *acquisition utility* captured this value concept. Acquisition utility is the surplus of utility (in dollar terms) over price paid (Thaler 1985, p. 205) or, alternatively, the ratio of perceived benefits to perceived sacrifice (Monroe 1990, p. 74). Further, Monroe (1990) suggests that acquisition utility, like transaction utility, can be represented in a price discrepancy term: $(P_{\max} - P)$, where P_{\max} represents reservation price (see also Thaler 1985, footnote 6).

In the present research, we consider the relative explanatory power of separate price discrepancy terms representing transaction and acquisition utility. Before presenting the research methodology, we consider various operational measures of the internal reference price concepts which can be used in calculating transaction utility and acquisition utility.

Potential Estimates of P^*

P^* is the internal reference price concept designed to reflect the price the consumer expects to be charged or believes is just or fair (Thaler 1985). The current study asks subjects to estimate internal reference prices for a particular apartment, using a

variety of approaches. The measures of P^* and P_{max} are presented below in verbatim form.

Perceived Price. Winer (1988) includes a number of internal reference price concepts under this category, although "perceived price" appears to relate primarily to the consumer's expectation of the price that sellers will charge for a given product on a given purchase occasion. We use three alternative (and probably substitutable) measures for this construct. These estimates have been used as well in a number of advertised reference price studies (e.g., Biswas and Blair 1991; Lichtenstein and Bearden; Urbany, Bearden, and Weilbaker 1988).

- NORMAL:** What do you think is the NORMAL rent for this apartment?
- EXPECTED:** What is the rent you would EXPECT to pay?
- AVERAGE:** Overall, what do you think is the AVERAGE rent for apartments like this?

"Just" or "Fair" Price. Winer (1988) separates fair prices from perceived, noting that the definition of fair price is slippery. The fair price is apparently based in part upon the consumer's perceived price, but also seems to require judgment against some standard of fairness (see Thaler 1985; Kahneman, Knetsch, and Thaler 1986). As such, the previous estimates of perceived price (i.e., shown above) may be different (and possibly higher) than those for the fair price measure:

- FAIR:** What do you think is a FAIR total monthly rent?

Potential Estimates of P_{max}

Conceptually, P_{max} is intended to indicate utility in dollar terms -- that is, the dollar amount the consumer would be indifferent to in choosing between cash and the product or the most one would be willing to pay. Operationally, we use three measures:

- MOST:** What is the MOST you would pay and still consider the apartment worthwhile to rent?
- INDIFFERENT:** From the price range given on the right, identify that price at which you would be INDIFFERENT between renting the apartment or looking further for an apartment.
- HIGHEST TO SEARCH:** Let's assume that you are currently living and settled in this apartment and it meets your needs. Assume that the rent is expected to change. If

the apartment owners/managers actually decided to change apartment rents, what is the HIGHEST monthly rent that would make you SEARCH FOR AND MOVE to another apartment?

Research Expectations

Our research attempts to discriminate between price discrepancy measures which should indicate transaction utility (TU) and those which should indicate acquisition utility (AU). In addition to measuring price expectations, we also measured respondent perception of TU and AU using several scaled items. As such, we expect that the TU price discrepancy variables will correlate most strongly with the TU scale and that the AU price discrepancy variables will correlate most strongly with the AU scale.

We also examine below how the TU and AU discrepancy terms perform in predicting purchase intentions. Our original expectation was that the AU construct, in reflecting the more permanent "utility" that the consumer would obtain through the purchase, would have a stronger impact on purchase intentions.

METHOD

Data were collected from 125 graduate student subjects via an interactive computer simulation. Seventy-six of the participants were male; the average age for the sample was 25.2 years. The research was conducted under the guise of research involving the evaluation of residential and apartment properties for university students. Prior to exposure to several apartment descriptions, data were collected regarding prior renting experience, rents paid, and related search experiences. One hundred and eighteen of the subjects (94 percent) were current renters; half the sample rented two bedroom apartments. Seventy percent of the respondents rated their general familiarity of apartments in the University area as at least "4" on a seven-place scale. The critical apartment (i.e., the location for which the various price estimates and judgments were elicited) was described as: having two bedrooms; being close to campus; in a safe, nice area; within a new building; and having a dishwasher. Using the operational statements reviewed above, the various price estimates were obtained in the following fixed order: NORMAL, MOST, EXPECTED, INDIFFERENT, AVERAGE, FAIR, and HIGHEST TO SEARCH. Following these estimates, the respondents were exposed to similar questions for another but different apartment. These latter tasks served also to separate the initial estimates from subsequent scaled-item judgments of perceived acquisition value, transaction value, and willingness-to-rent.

After providing price estimates for the second apartment and an additional set of filler questions, the study participants were provided with the initial apartment description in the context of a newspaper advertisement, including a monthly rent. Subjects were asked to assume they were in the market for an apartment and noticed this advertisement in the

TABLE 1
Means and Standard Deviations for Different Internal Reference Price Estimates and Scaled Variable Measures

Variable	Number of Items	Mean	Standard Deviation	Reliability
<i>Prices Estimates</i>				
Estimates of P*				
Normal	1	482.36	78.87	—
Expected	1	490.48	89.60	—
Average	1	489.72	78.50	—
Fair	1	507.81	412.78	—
Estimates of Pmax				
Most	1	509.89	96.95	—
Indifference	1	461.60	81.23	—
Highest to Search	1	539.04	129.48	—
<i>Scaled Measures</i>				
Transaction Utility	4	16.68	6.64	.94
Acquisition Utility	3	12.78	4.96	.81
Willingness-to-Rent	4	16.69	7.69	.94

Sunday newspaper. The advertised prices were manipulated to vary across seven conditions. These conditions were configured in a 1X7 design to represent prices either 15, 30, or 45 percent above or below or equal to the average of each subject's initial NORMAL and EXPECTED price estimates. As such, the prices were varied at the individual level based upon each subject's initial expectations. The cell sizes ranged from 17 to 19.

Operational Measures. Again, the "raw price estimates" were obtained using the question wording as previously described. Difference scores, in which the individual price is subtracted from the respondents' price estimates, were computed to represent the price based estimates of acquisition value and transaction value. That is, the advertised price was subtracted from the estimates of EXPECTED, AVERAGE, NORMAL, and FAIR to reflect four alternative price-based estimates of transaction value ($P^* - P$). Likewise, the advertised price was subtracted from the initial estimates of MOST, INDIFFERENT, and HIGHEST TO SEARCH to obtain three price-based individual estimates of acquisition value ($P_{\max} - P$). A series of four, three, and four seven-place scaled statements were also included to operationalize transaction value, acquisition value, and willingness-to-rent, respectively. The responses to the indicators for the latter three constructs were summed to form an overall index for each variable. The wording of the statements was varied in direction to inhibit response bias; each scale position was labeled to suggest equal intervals across response alternatives. The four transaction scaled statements were each worded to prompt the respondent explicitly to compare the expected price to

the advertised amount. For example, the items were prefaced by: "Compared to what I expect this apartment normally rents for, the advertised price appears to be..." These statements were then followed in the computer exercise on separate screens by the following bipolar adjective sets: high-low, outrageous-reasonable, expensive-inexpensive, and overpriced-underpriced. The summated scale version of acquisition value was operationalized as the response to three items: 1) Overall, the offer for this apartment is ...Very Poor Value-Very Good Value; 2) Overall, this apartment is a good value for the money...Agree-Disagree; and 3) The apartment is an excellent buy for the money...Agree-Disagree. Willingness-to-rent (cf. willingness-to-buy) was measured as the sum of four items similar to the following two examples: 1) "How willing would you be to rent this apartment...Very Unwilling-Very Willing"; and 2) "Given the offer described, the likelihood that I would rent this apartment is...Very Low-Very High". As shown in Table 1, the coefficient alpha estimates of internal consistency reliability were 0.94, 0.81, and 0.94 for the scaled measures of transaction value, acquisition value, and willingness-to-rent, respectively.

RESULTS

The means and standard deviations for the seven price estimates along with the means for the three scaled measures are presented in Table 1. Three of the initial estimates of P* (i.e., NORMAL, EXPECTED, and AVERAGE) have essentially the same mean and standard deviation. The fairness measure produced a numerically higher mean and variance than the other three measures--suggesting a wide range of

TABLE 2
Intercorrelations Among Price Estimates

	P* (Expectations)				Pmax (Reservation Price)		
	1	2	3	4	1	2	3
<i>Estimates of P*</i>							
1 Normal	<u>1.00</u>	.79	.84	.18	.72	.72	.56
2 Expected	.93	<u>1.00</u>	.80	.16	.68	.66	.52
3 Average	.96	.94	<u>1.00</u>	.20	.68	.72	.59
4 Fair	.39	.37	.40	<u>1.00</u>	.15	.17	.13
<i>Estimates of Pmax</i>							
1 Most	.91	.89	.90	.37	<u>1.00</u>	.76	.58
2 Indifference	.93	.90	.93	.38	.92	<u>1.00</u>	.54
3 Highest to Search	.82	.79	.82	.33	.81	.80	<u>1.00</u>

^aCorrelations below the diagonal reflect intercorrelations among difference score estimates of P* and Pmax; correlations above the diagonal reflect intercorrelations among the raw score price estimates.

interpretations of the term "fair." There is a fairly wide range between the three reservation measures of Pmax. The lowest estimate came from the "indifference" measure for which respondents were placed in a search context. For the "highest to search" estimate (and the estimate that possessed the highest mean), subjects were asked to assume they were already renting. Of interest also, the "most" estimate was not that different from three of the P* estimates.

Intercorrelations among the initial estimates of the "raw" scores along with the intercorrelations among the difference scores are summarized in Table 2. For the raw score estimates (shown above the diagonal in Table 2), some very modest evidence of discriminant validity of the P* estimates versus the Pmax estimates was provided. Additional evidence regarding the very different effects captured by the fairness measure was also provided. The high correlations among the discrepancy scores for (P*-P) and (Pmax-P) clearly show that, while the Pmax estimates may be higher (see Table 1), the Pmax or reservation price difference scores are closely correlated with the P* estimates.

Correlations of the price-based estimates of transaction value [i.e., (P*-P)] and acquisition value [i.e., (Pmax-P)] with the scaled measures of transaction value, acquisition value, and willingness-to-rent are depicted in Table 3. In support of the general research procedures employed in the study and as would be expected, the initial estimates (which were obtained prior to the provision of the apartment rent) were not correlated with the scaled variables. In contrast, and as expected, all of the discrepancy variables were significantly correlated ($p < .01$) with the scaled measures of acquisition and transaction value. However, all the results were not as anticipated. Specifically, the acquisition value estimates [i.e.,

(Pmax-P)] were not more highly correlated with the scaled measure of acquisition value, but were actually more strongly related to the four-item scaled measure of transaction value. It is possible that the respondents were unable to get or develop a solid feel for the overall utility of the apartment that might be obtained with a more complete description or a picture.

The relative predictive ability of the various measures of acquisition value and transaction value were further examined in a series of simple and multiple regression analyses. These results are presented in Table 4. In these tests, the measure of willingness-to-buy was used as the dependent variable throughout. The Table includes both standardized regression coefficients and simple correlations along with estimates of the amount the variance explained decreased when each variable was omitted from its corresponding two predictor variable multiple regression equation. These latter estimates assist in interpreting the relative importance of predictor variables when multicollinearity problems are likely.

These regression results present a number of interesting findings. The scaled measures of acquisition value and transaction value explain a considerable amount of the variance in willingness-to-rent (i.e., adjusted R-square = 0.73). However, the scaled measures shared considerable similarity in measurement methods, despite the items being interspersed among a larger number questions and the varied direction of the item wording. As shown, analysis of the three scaled variables revealed that acquisition value appeared to be the most important correlate with willingness-to-rent as anticipated. A different conclusion emerges when the price-based predictions are evaluated. That is, the discrepancy estimates of transaction value [i.e., (P*-P)] appear

TABLE 3
Correlations of Estimated Price Variables with Scaled Measures of Transaction Value, Acquisition Value, and Willingness to Rent

Price Estimates	Transaction Value	Acquisition Value	Willingness-to-Rent
<i>Raw (Initial) Price Estimates</i>			
Estimates of P*			
Normal	.04	-.06	-.08
Expected	-.02	-.02	-.06
Average	.07	.03	-.02
Fair	.06	.02	.02
Most	.06	.01	-.03
Indifference	.05	.01	.01
Highest to Search	.05	.03	.03
<i>Difference Score Estimates</i> ^a			
Estimates of P*			
Normal	.79	.56	.56
Expected	.79	.61	.60
Average	.80	.60	.59
Fair	.32	.22	.23
Most	.77	.56	.56
Indifference	.77	.57	.59
Highest to Search	.69	.52	.53

^aAll correlations involving difference scores are significant.

most important. In other words, the relative importance of TU and AU differ somewhat depending upon the types of measures used.

A number of other findings appear noteworthy as well. First, there was considerable overlap among the predictors. Little incremental variance was explained by the addition of a second variable in most of the equations. And, for the price discrepancy estimates, the fairness estimate contributed very little to the overall judgments of the advertised apartment. This finding is surprising in view of Thaler's (1985) suggestion that "fairness" represents a primary measure of P*.

DISCUSSION

This paper presented results from a simple experiment which examined the correlations between a series of price discrepancy variables and willingness to buy. In the research, the advertised price was subtracted from seven price estimates to form four and three price discrepancy measures of transaction value (P* - P) and acquisition value (P_{max} - P), respectively. Relationships with scaled measures of transaction value and acquisition value were also investigated. Caveats are in order regarding the use of student

subjects, the simulated nature of the research, and the failure to separate in time the initial estimates from the overall scaled measures. [Our intent for future research is to vary the order of estimate elicitation.] Efforts were made, however, to use a plausible context for which subjects were familiar and a number of filler tasks did separate the initial estimates from the advertisement exposures.

The most obvious result is that, except for the FAIR estimate of P*, the TU and the AU price discrepancy terms are relatively indistinct, especially in their influence or correlation with intentions. We would argue that previous research has operationalized price discrepancy terms which seem to represent transaction utility primarily (e.g., Kalwani et al. 1988; Lattin and Bucklin 1988; Winer 1986). To the extent that P* and P_{max} overlap or are highly correlated, however, the (P* - P) term may be sufficient. That is, adding the AU term may not add incrementally to explained variance. While these studies have referred to their price expectation measures generally as "reference prices," they may be capturing elements of reservation price as well as price expectations.

TABLE 4
Regression Results: Predicting Willingness-to-Rent from Estimates of Transaction and Acquisition Value

Model	Transaction Value			Acquisition Value			Adjusted R-Square
	β_1	r	Reductions in R-Square when omitted	β_2	r	Reductions in R-Square when omitted	
<i>Scaled Measures</i>							
TV, AV	.23 ^a	.74 ^a	.02	.67 ^a	.84 ^a	.18	.73 ^a
<i>Price Estimates</i>							
Normal, Most	.31	.56 ^a	.01	.28	.56 ^a	.01	.32 ^a
Expected, Most	.49 ^a	.60 ^a	.05	.13	.56 ^a	.00	.35 ^a
Average, Most	.47 ^a	.59 ^a	.05	.14	.56 ^a	.01	.35 ^a
Fair, Most	.03	.23 ^a	.01	.55 ^a	.56 ^a	.26	.30 ^a
Normal, Indiff	.14	.56 ^a	.01	.46 ^a	.59 ^a	.03	.33 ^a
Expected, Indiff	.39 ^a	.60 ^a	.03	.24	.59 ^a	.01	.36 ^a
Average, Indiff	.36 ^a	.59 ^a	.02	.25	.59 ^a	.01	.35 ^a
Fair, Indiff	.01	.23 ^a	.00	.58 ^a	.59 ^a	.29	.33 ^a
Normal, Search	.38 ^a	.56 ^a	.04	.23 ^a	.53 ^a	.01	.32 ^a
Expected, Search	.47 ^a	.60 ^a	.08	.16	.53 ^a	.01	.36 ^a
Average, Search	.47 ^a	.59 ^a	.07	.15	.53 ^a	.01	.35 ^a
Fair, Search	.06	.23 ^a	.01	.51 ^a	.53 ^a	.25	.28 ^a

^ap<.01

The above conclusion is drawn from our correlational analysis. However, limited incremental gain from adding the AU term to the prediction of willingness to buy may hold even when P^* and P_{max} are conceptually and empirically distinct. All that is required is that P^* and P_{max} be highly correlated. In this study, the "highest-to-search" measure produced the highest estimate of P_{max} (and, therefore, was the most distinct from P^*), yet was still highly correlated with the estimates of P^* .

Situations can be envisioned when P^* and P_{max} are identical, and hence, the price discrepancy terms of AU and TU would be identical. For example, any situation in which a consumer believes that the most s/he is willing to pay is equal to the market price (i.e., there is no need to pay more) would equate P^* and P_{max} . Even if this is not the case, it is still likely that the expected market price provides a foundation for judging P_{max} , and as a result, the two will be highly correlated. To the extent this is true, operationalizations of Thaler's model using price discrepancy terms may be accomplished most effectively using just the TU discrepancy terms.

To understand whether $(P^* - P_{max})$ will always be highly correlated, however, we need to make sure

that P_{max} is being properly measured. It seems that the measure of P_{max} should allow for maximum distinction between itself and P^* . Clearly, future research is warranted. For example, we are not certain what the respondents were considering in their responses to the "fair" estimate. The unexpected relatively high estimate for FAIR and the very large variance indicate differences in judgments for this internal reference price estimate.

Lastly, the results are derived from a single study for a single alternative evaluation, and hence, our findings are offered only as an initial effort. And, even if the conclusion were eventually reached that the AU price discrepancy term adds little to the "easier to measure" TU price discrepancy term, this would not suggest that the AU concept itself is not useful. In fact, although, intercorrelated, the scaled measures of AU which measure perceptions of the "value for the money" directly were correlated with purchase intentions.

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Transcendent Benefits of High-Risk Sports

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In recent years, there has been a dramatic increase in the number of participants in high-risk leisure activities such as mountain and rock climbing, SCUBA, skydiving, extreme skiing, white water rafting, and aviation sports (Lyng and Snow 1986). Not only are more people experiencing these activities, but their demographics include a widening age range and a growing number of female participants (Celsi, Rose, and Leigh 1991). Further, through increased media coverage and word-of-mouth, vicarious consumer participation also flourishes, as scenes of parachutists, hang gliders, and white water rafters capture our imagination.

For instance, recall recent TV ads, including a parachutist on a slalom ski skimming over the top of a body of water with the voiceover "life is short, play hard," or skydivers on surfboards free falling for a Coca Cola, or the countless images of both male and female extreme skiers, mountain cyclists, and rock climbers. These scenes are breathtaking, as each image captures and reflects a growing fascination with the excitement of high-risk sports. The attraction is visceral and the message clear: "experience the thrill and live life to the fullest." But beyond experimentation and thrill, what is it about playing on the edge that attracts and sustains the interest of those few who continue and become veterans of these sports? What additional benefits sustain their continued participation? That is, beyond thrill, what motivates experienced participants to continue to risk their lives?

The objective of this paper is to briefly examine benefits that are realized by many individuals through prolonged participation in and consumption of high-risk sports. My intention is not to present a comprehensive review of benefits and outcomes that accompany and motivate participation in high-risk sports, but rather to focus on a specific set of abstract benefits that appear to be common to experienced participants across many high-risk sports. Thus, the interpretations presented in this paper are not intended to encompass the entire high-risk experience, but only those experiences that I will refer to as "transcendent." These are (1) self realization and the flow experience, (2) *communitas*, and (3) self-change. I classify this set of outcomes as transcendent because they are commonly described by participants as having properties capable of altering one's perceptions in terms of self, context, and others. Moreover, participants' descriptions of these experiences are often accompanied by expressions of wonder and bemusement, often associated with profound experience.

METHODS

The data for this paper are gained primarily from three high-risk sports: (1) mountain climbing, (2) BASE jumping, and (3) skydiving (see Celsi et al. 1991 for an ethnography of skydiving). Mountain climbing refers to the skills and experiences

associated with negotiating a mountain with the goal of summiting. Skydiving refers mainly to free fall parachute jumps from an aircraft. BASE jumping is the use of a parachute to jump from a fixed object such as a Building, Antenna, Span (bridge), or Earth (cliff). All three activities are risky. In combination, approximately 100 Americans die each year while participating in these three sports (Society of Actuaries 1982).

The conclusions and inferences drawn in this paper are based on participant observation, interview data, and secondary data sources in all three high-risk sports except BASE jumping which is based on non-participant observation. Direct experience includes over 650 free fall skydives and mountain climbs to altitudes of 19,000'. In addition, over 70 hours of in-depth interviews with participants in these activities have been conducted and analyzed. This experience and data has been collected during the past five years at over 20 sites in the United States, Europe, and Mexico.

Data collection and analysis procedures were emergent and iterative and based on prolonged engagement (Kvale 1983; Wallendorf and Belk 1989). Multiple methods, multiple sites and contexts, as well as member checks, were used to ensure triangulation and credibility (Lincoln and Guba 1985; Werner and Schoepfle 1987).

TRANSCENDENT EXPERIENCE

Mountain climbing, BASE jumping, and skydiving are similar in that participants willingly risk injury or death to experience their sport's benefits. Each requires the development of specific physical skills along with the ability to handle specialized equipment. For example, skydivers and BASE jumpers must manage parachutes and develop aerial skills, while climbers learn to use ice axes and crampons, and to hone their balance. Yet, each physical context is descriptively different. A BASE jump from a 50 story building is a blur that lasts just seconds, and is reduced largely to a series of survival actions in the face of extreme and immediate conditions. In contrast, the context of climbing a mountain is drawn out over days or weeks and encompasses many levels of risk and conditions. Skydiving, although of relatively short duration when compared to mountain climbing, occurs over a much longer time frame than BASE jumping. Skydiving typically includes a minute of free fall (or *skydiving*) before the participant must take survival action and activate his or her parachute which then takes about four or five minutes to land.

However, when participants describe the more abstract qualities of these activities, they use a common language. For example, BASE jumpers, skydivers, and mountain climbers all reflect on camaraderie, timelessness, involvement, and a sense of freedom as benefits of their respective sports. My description and interpretation of transcendent

experience is based on these abstract commonalities that are reported and observed across all three of the high-risk sports that are examined.

Specifically, I use the term *transcendent* to describe those person/context interactions that are experienced by the individual as producing either altered temporal experience (e.g., a sense of timelessness), special understanding (*camaraderie*), or personal change that is considered to be profound by the participant. These commonalities are most evident when these individuals describe (a) their involvement with the context in which their high-risk sport occurs, (b) the sense of community and special communication that they feel, and (c) the sense that they are changed by engaging in the activity. These themes are described in the following sections as (1) the flow experience, (2) *communitas*, and (3) felt self-change.

The Flow Experience

When BASE jumpers, skydivers, and mountain climbers discuss the primary activities of their sports, for instance, the actual act of "making a bridge jump," of being in free fall, or traversing a glacier, they speak in terms of the absolute involvement that is demanded, as well as the sense of release, timelessness, and freedom that coincides with those peak experiences. For example, a BASE jumper describes the total commitment of a leap from a 55 story building.

After reaching the top, you had to step up onto a ledge. My knees felt weak and, I think, were shaking. I needed a hand to step up there... But when I jumped into the darkness, all of that left me. I was perfectly calm and clear. There is no sense of time, other than you know you don't have much of it, but it almost seems as if everything is in slow motion, if you have any sense of it at all. But it's only when I look back on it that it seems that way. At the time I was completely engrossed in what I was doing (BASE jumper, wm 44, Los Angeles, California, 5/91).

A similar state of involvement while mountain climbing is recorded in the following field note excerpt.

At 13,000' I encountered a 75° cornice. It wasn't that big a deal, I mean it didn't overhang and it was only about a 15' wall. However, it was at the top of a glacier that averaged 50° and was 2000' vertical feet and I was solo... I had been more conscious of time than usual as I felt it necessary to clear this drainage before the summer sun softened the snow, and the sun was now 20' to my left. However, when I turned into the cornice and front-pointed over it (with crampons and ice axe) everything was reduced to the feel of the snow on my hand. I don't remember the sun hitting me until I was up, but it must have. There was no time, no consciousness, no effort that I recall, everything in retrospect seemed reduced to that

tactile memory. The sun then became a reward (field notes, Mt. Shasta, California, 7/91).

A skydiver describes this involvement as a sense of freedom experienced while falling two miles through vertical space:

Freefall is a ...free feeling. It's one time in my life when I think of nothing else. I mean, there's nothing on my mind. There's nothing I'm thinking about other than what I'm experiencing. Everything else is totally out of my mind and I am free. There is nothing to hold me down, to hold me back. There's just nothing there... (wf 27, 100 jumps, South Carolina, 1989).

Csikszentimihalyi (1974, p. 58) describes person/context interactions such as these as "flow" experiences. He defines flow as a

state in which action follows upon action according to an internal logic which seems to need no conscious intervention on our part. We experience it as a unified flowing from one moment to the next in which we are in control of our actions, and in which there is little distinction between self and environment; between stimulus and response; or between past, present, and future.

Csikszentimihalyi and Csikszentimihalyi (1988) believe that flow signifies the emergence of an individual's true self, which is free of self-limitation and self-awareness. As such, flow is a fluid state that seems atemporal, where one moment flows into the next as personal action and situational demands synchronize and become one. Self-consciousness, as evaluator and commentator, is replaced by a seemingly less obtrusive awareness that is typically recalled only after the flow experience has ended. This state of personal freedom is reflected in the above verbatims, in which the depth of involvement in the activity is described as overriding the participant's self-awareness. Thus, flow represents a release from conscious constraints, such as self-doubt and socially imposed limitations, and therefore results in at least a temporary realization of an unencumbered self.

For flow to occur, situational demands must generally approximate the coping abilities of the participant, thus allowing for a potential state of absolute involvement. That is, a context must exist in which the individual is neither "underwhelmed" or overwhelmed by the situation's demand characteristics, as the former is boring, and the latter quickly becomes terrifying. Neither produce flow.

Mitchell (1983, p. 154) states that ideal conditions for flow exist when an individual is both free to enter a situation and has autonomy over his or her behavior once engaged. Similarly, Goffman (1967, p. 185), referring to such a context as "action," says that it must allow for creative freedom and be sought out and embraced solely as an end in itself. Writing about heightened experience, Caillois (1961)

adds that this context must also allow for fantasy in terms of imagined outcomes and scripts, and produce a sense of vertigo, or altered consciousness that accompany the purposefully sought uncertainties encountered in activities such as skiing, skydiving, and mountaineering... (in Mitchell 1983, p. 154).

High-risk sports are and remain attractive to individuals because they meet these criteria. They (1) are freely engaged as an end in themselves, (2) present a context that tests abilities, and (3) provide the potential for imaginative and heightened experience. Moreover, high-risk sports provide these opportunities to virtually all participants because these activities are not absolute in their risk and degrees of difficulty, and thus can be engaged by individuals in a manner that approximates their respective skill levels. For example, a twenty-one year old with relatively little experience expresses this benefit when describing a rock climb.

This [climb] was only about 20', but it was Denali to me [Mt. McKinley], I was so in to it...! (field notes, 9/90; Joshua Tree National Monument, California).

Thus, in high-risk sports the stimulus field can be intentionally delimited (Mitchell 1983). For instance, routes up mountains can be chosen that challenge individual abilities, skydives can be planned to match the skill levels of the divers, and BASE jumps can be made from various altitudes and stances. In this manner, high-risk sports offer an infinite variety of contexts that provide flow opportunities and possible transcendent rewards to all participants who choose to interact with the context. Because of such rewards, individuals are motivated to return often to the risk context in order to "re-create" or "replicate" the experience (Csikszentimihalyi 1975).

Scott, who retired from BASE jumping after suffering a serious injury in a near fatal BASE jump, and whose retirement was reinforced by marriage, says with increasing frequency that he can feel the urge to BASE jump again. "It's something that will never leave me." He began skydiving again six months after his accident (Conversation, Long Beach, California, 4/91)

Communitas

Whereas flow, as described above, is experienced at the individual level, another form of transcendence occurs at the communal level in the form of shared experience. Turner (1977) defines this social bonding as *communitas*. Belk, Wallendorf, and Sherry (1989, p. 8) believe that *communitas* is a kind of "shared flow." They state that flow and *communitas* are not distinguished "so much in the nature of the experience [but] in whether it is a group or individual phenomenon." Clearly, the flow experience is a key aspect of *communitas*, but to view *communitas* as "shared flow" is limiting. *Communitas* is a function and sense of *shared experience*, stemming as much from the shared boredom of a sleepless night at

altitude or the grief shared at a friend's funeral, as from the highs of flow and camaraderie. Often *communitas* may be experienced as a feeling of flow, but just as often it is a conscious sense of "team," common language, and shared responsibility. As such, *communitas* is inclusive of, but not limited to, feelings of shared flow (see Celsi et al. 1991). BASE jumpers, climbers, and skydivers reflect this group involvement which stems from common experience.

...when we are out here climbing on these rocks, nothing else matters to us, not school, work, or anything... All of that is gone. All there is is the climbing, the sun, and the people I want to be with... Everybody I know feels the same way... (wm 27, Joshua Tree National Monument, California, 9/90).

It's almost like a family out here [at the parachute center]. There is a certain kind of camaraderie among skydivers that you just don't get anywhere else (wm 40, 1100 jumps, skydiving photographer, South Carolina, 1989).

Communitas, as interpreted by Belk et al. (1989, p. 7), "is a social antistructure that frees participants from their social roles and status and instead engages them in a transcending camaraderie of status equality" (also see Turner 1977). High-risk participants often talk of the common bond that they have with one another and the suspension of everyday social order. This status equality, which is pervasive in high risk sports, is described by two skydivers:

The sport has a special kind of camaraderie [so] that it doesn't matter what kind of background [you come from], in any category, be it religious, educational, or whatever... there is still a common bond that exists and draws people together (wf 34, 1600 jumps, Chester, South Carolina, 1989).

...jumpers have a special kind of bond... you have your doctors, professors, lawyers, but you also have your truck drivers, brick layers, and masons. Out here on weekends, none of that is a factor. What people do and how much money they make just doesn't play any part (wm 25, 325 jumps, Charlotte, North Carolina, 5/88).

This type of social leveling and bonding is most likely to occur when an individual is in a liminal state "between two statuses such that may occur on a religions pilgrimage," or, in other words, among layman when they seek acceptance into a subculture (Belk et al. 1989, p. 8; also see Turner and Turner 1978). In the following field note, this "pilgrimage quality" is observed in passing by a solo climber. Here, many groups of individuals, who are essentially inexperienced "mountain climbers" (or in a sense liminal members of this high-risk sport) have embarked on a "once in a lifetime" climb. In the

process, they are observed to be transformed and bonded by the experience.

I had camped at about 7500' near the trail head of the "normal" route up the mountain. As it was summer, there was an enormous number of "climbers" of various abilities and experience who were going to attempt this standard route up the mountain. I was amazed at how many there were. Most were clearly here for a once-in-a-lifetime experience. Some had hiked the switch-back trails of Mt. Whitney and thus felt they were up to this mountain because of its comparable altitude. All expectations were high, as climbers camped on the side of this Volcano that rose an additional 7000' in only 4.1 miles. The mountain was still snow and ice covered, but the standard route, this time of year, was little more than a walk-up to someone experienced with altitude, crampons and ice axe. I would climb a different, somewhat steeper route, but for the first 2000' the next morning, I shared the same route with this column of over 100 climbers, who looked as if they were laying siege to the mountain as they snaked up its side! For four hours I passed many of these climbers, and in a strange Chauceresque way collected many of their "stories" in exchange for mine. To some this mountain was a life-long ambition, to others an uncertain experience. However, all were under the spell of the mountain and shared a look of intentness that made an impression on me. It was clearly religious. All differences seemed dwarfed by the mountain, which had become some kind of shared Grail. However, perhaps because I planned to climb a different route, I felt more an observer than member. At 11000' I climbed solo, and in stark contrast, saw and heard no one until I traversed the top of a west facing glacier at about 13,500' and gradually rejoined the normal route near the summit plateau. Only a handful of the climbers had made it this far. One, who was the only person out of five in his group who summited (and whom I had seen earlier), said with a quiet excitement that it had not been at all like he had expected. It was so much more. It had been a pilgrimage, he said. He laughed a kind of half laugh to himself looking past me, and said again, with that same half laugh, that it had been a pilgrimage -- nothing else could describe it... (field notes, Mt. Shasta, California, 7/91)

In contrast, the pilgrimage quality of *communitas* may not be as overt with experienced climbers, BASE jumpers, and skydivers, as these participants often are more process, as opposed to "Grail" or outcome orientated. Nevertheless, the sense of *communitas* remains strong and unifying, as this experienced BASE jumper and skydiver indicates:

...these people are my brothers. I trust them with my life all the time... they do what I do and know essentially what I know... (wm 24, Zepherhills, Florida, 3/89).

This shared understanding and experience often translates into a common language that is also a central aspect of *communitas*. That is, a combination of common experience and specialized technical vocabulary, which is little understood by outsiders, ties together the cultural community, thus reinforcing the uniqueness of the group (Celsi et al. 1991). For example, climbing and skydiving terms, such as "rappeling" (a way of descending with the aid of rope), and free fall, are only understood at all levels of meaning by participants who share the experience of these terms beyond their linguistic translation.

This inability to translate non-common experience is expressed by one skydiver:

Well, first of all, I can't really go on and explain to somebody who has never jumped, OK? That's one thing that if you've never done something, you can't really share it with someone else (wm 22, 300 jumps, Columbia, South Carolina, 1990)

Malinowski (1923) refers to this cabalistic aspect of a shared language, which transcends direct translation, as *phatic communion*. As such, *phatic communion* is a special set of verbal and non-verbal cues, which are well-understood by insiders, and allows them to both create and communicate their special world view. Thus, language which describes shared experience becomes, in itself, a central aspect of *communitas* as it gives cohesion and a sense of pride to the subculture.

This sense of language, group membership, and pride is reflected in the words of a young hang-gliding enthusiast.

It's like a different language, like French; I love it when my brother can't understand what I'm talking about... (Brannigan and McDougall 1983, p. 45).

In sum, *communitas* is a special sense of community that emanates from shared and often unique experiences. It is manifest at the levels of camaraderie and language, and like flow, often transcends ordinary experience.

Felt Self-Change

Feelings of self-change and personal growth are also rewards of peak experience, as most mountain climbers, skydivers, and BASE jumpers feel that they have been changed, often in profound ways, by their respective sports. This personal change is manifest at many levels and essentially evolves relative to the individual's experience level. Initially, for example, feelings of self-confidence and self-efficacy accompany the success of high-risk undertakings, as this young woman who had just completed her first parachute jump announced.

I've done it. And it's nothing anybody can ever take away from me... (overheard conversation at a skydiving meet in Lidkoping, Sweden, 5/89).

Then, as experience is gained, most, who go on to push the limits of their context and ability, also feel that their overall lives have been changed in significant ways. To these individuals, who have experienced *communitas* and the intensity of flow, and who have most likely confronted death or injury in some form, feelings of increased confidence and self-respect are accompanied often by changes in perspective and world view.

...it has changed me, as far as, you know, [pause] ...I've been doing it for so long now, it almost seems like a way of life (skydiver, wm 25, 1400 jumps, Columbia, South Carolina, 1988).

However, in addition to, and highly related to the personal growth described above, is an actual *experience* of self-change, a feeling that sometimes follows profound peak experience. It is an experience of self-change that is palpable and *phenomenologically felt*, as if the change that occurs incrementally in ordinary life were temporally compressed resulting in an acute self-awareness of differences between old and new self. This feeling is expressed in the following field note recorded in the days immediately following a mountain climb.

...it's powerful, like the sensation of experiencing someone else's body and mind, only you know it's you, but the novelty of the feeling is real and tangible. It's like having many years of life's experience compressed into a short period... like the feeling of falling asleep a 12 year old and waking up 16. It's a very special kind of high, because not only have you changed, but you can *directly experience* and feel the change. You can look through new eyes and experience for a short while the prosaic in your life as novel (field notes, El Popocatepetl -- 17,887', Mexico, 12/90).

This feeling of self-change is experienced as a "high," but not as an adrenalin or excitement high, but rather more like the infinitely intensified feeling of wearing a new suit of clothes. Like flow, the feeling is transcendent in that perceptions are somehow altered, but unlike flow, it is a state that is *self-consciously* experienced and immediately available to introspection. In fact, it is the intensified self-awareness of the change in itself that seems to provide, or is the high.

This feeling is like being "allowed" to experience the *transition* from one self to another, like overtly observing a deep-seated psychological process (field notes, Mount San Antonio, California, 11/90).

This feeling can be described, internally, as the sensation of experiencing a new or changed self, and externally, as perceiving life, including the mundane, as new and meaningful. An analogy may be found in Dostoyevsky's (1866) "Crime and Punishment," wherein the protagonist and murderer, Raskolnikov, is finally caught and is being taken away for life to prison. Conveying the abrupt and fully perceived change that this brings to Raskolnikov's life, Dostoyevsky focuses on Raskolnikov's perception of a street sign. Raskolnikov, who has passed this street sign every day of his life, thinks how profoundly strange and uniquely different the sign now appears to him in its complete detail as he passes by it on the way to prison. He thinks not only that the sign's meaning has changed for him, but that his very perceptions of the sign's physical characteristics and context have been altered. Clearly, Raskolnikov's life has changed for the worse, but the analogy of altered perception following sudden and intense perceived self-change is highly applicable.

Similarly, journalist Claudia Dowling (1991) reflects on the positive nature of this self-change after her unsuccessful Mount Everest attempt. She also notes the ephemeral nature of the feeling.

And yet -- I have climbed a bit of Everest... And the world seems great and magnificent that it could have such a mountain in it. "It changes you," English [who also had climbed Everest with Dowling] had told me. "It make you a better person. But it [the feeling] only lasts about two weeks. That's why you keep going back" (p. 56).

The experiential quality of self-change does seem to diminish in a few weeks as English says. Yet, it's not likely that the self-change is temporary, but rather that the change is assimilated and the contrast is no longer felt. One is clearly left with the feeling of permanent and positive change, and the desire to experience this unique high again. As English had told Dowling, "it changes you for the better" (p. 56).

The ephemeral and addictive quality of the high is expressed by a skydiver.

...the skydiving, it just calls you back every time... it was my love and lust (wm 34, 1038 jumps, Chester, South Carolina, 1989)

In theory, felt self-change in high-risk sports appears to be a function of the entire high-risk experience punctuated by flow, or more likely, a *series* of flow episodes such as typically occurs, for example, on a mountain climb. In this sense, flow, as a peak experience of absolute involvement, acts as a crucible where the manifestation of extant self is tempered through a process of repeated *actualization*. This process likely forges personal change that is felt later when the absolute involvement of flow gives way to self-awareness and the contrast between old self and new self is phenomenologically experienced. Thus, felt self-change is likely, in part, an outcome of flow, with flow a crucible that forges change through total

involvement. As such, felt self-change and flow are separate but related experiences. Flow is the experience of absolute involvement, marked by the absence of self-consciousness, while felt self-change is an acute and transcendent experience of self-awareness.

CONCLUSION

High-risk sports offer extensive benefits, most of which are beyond the scope of this paper. However, it is experiences such as flow, *communitas*, and self-change which are gained from intimate interaction with these activities that provide individuals with a sense of transcendence, personal identity, and ongoing motivation. In sum, while qualities such as thrill and excitement are always desired and enjoyed, it is the ability of high-risk sports to produce both individual and shared transcendent experience that elevates them most of all to the realm of the "sacred" (cf. Belk, Wallendorf, and Sherry (1989)).

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Discussant's Comments on Competitive Papers Presented Session 8.6 - Services

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The following review of papers in this section will involve a brief summary and discussion only. Methodological and other issues considered in the review process will not be commented upon.

COMMENTS ON CONSUMER AND EMPLOYEE ROLES IN SERVICE ENCOUNTERS

This is a very interesting research study which explores the personal interaction between consumers and employees in the sale of services. The research adds a new dimension to previous research by exploring the consumers' role in this process.

Prior to discussing the contribution of the research and some of the implications, it is necessary to discuss some of the limitations. While these limitations do not severely qualify the results and conclusions, future research that was designed to overcome these limitations would further our knowledge significantly. There are really three limiting factors:

1. *The sample selection*--the sample used in this research is limited both in size and demographic composition. Twenty-eight undergraduate students enrolled in an introductory marketing class, unfortunately, do not represent a very broad-based view of society and/or consumers. As one would expect, their limited backgrounds and consumption experiences narrow the perspectives that they bring to the research. This fact is reflected by the limited domain of experiences discussed--restaurants and retail stores.
2. *The lack of some quantitative information*--it would have been extremely helpful if at least some preliminary information -- hopefully of a quantitative variety -- was obtained prior to conducting the interviews. As will be seen, some of this information may have direct impact on the roles that the consumer assumes in the dyadic communication. This information might have included factors such as the situation in which the consumption took place, the level of involvement of the consumers and/or the relative competence (confidence) of the consumer in making the purchase decision.
3. *The interpretative process*--from the information available to me, it appears that interpretation of the interviews was the sole responsibility of the researcher. If this is true, the opportunity for bias and lost information is high. I would suggest a

panel of judges/interpreters to be used in much the same way that cognitive responses are interpreted. This process would allow for a broader range of interpretations, as well as a measure of consistency.

Again, let me reiterate that these criticisms are meant in a constructive manner. As an academic, I am quite aware of the budgetary constraints imposed, and the difficulty in accessing respondents for conducting research. On the other hand, if advances are to be continued to be made, ways to improve the research studies should be considered.

As noted earlier, one of the contributions of this research is that it includes the perspective of the consumer in the service exchange process. A role-theoretical perspective is assumed, in which the consumer and the employee are perceived as actors in a consumer setting. Consumers are eventually classified as *dependent, autonomous, and/or mutual*.

Without rehashing each of these roles (they are well described in the paper), it can be seen that determinants of which of these three roles will be assumed include consumers' involvement, perceived self-competence and confidence. In addition, the situation in which the setting is taking place will have a significant impact. In respect to the first of these, dependents, the consumer is perceived as wanting assistance, seeking help, and somewhat uncomfortable in the purchase setting. In autonomous settings, the consumer "wants to be left alone," while mutuality lies in between.

I would suggest that the roles that the consumer wishes to assume will essentially be predetermined by the above factors. In fact, I think that these assessments of the self and the situation will determine even the context in which these interactions will occur. For example, envision a situation in which I know the part for the car that I am looking for. I will be more likely to choose a store in which I can get in quickly, find the part (hopefully at an affordable price) and get out. I have little or no use for the employee, and may never even have a service interaction. Now imagine that I am trying to fix the car, but have little knowledge of what is required. In this case I will select a different store, and a different service encounter is anticipated and sought. As can be seen, not only do the roles change, but so too does the entire decision process.

In respect to the roles assumed by the employee--*indifference, dominance, and co-operation*--again, a number of factors should be taken into consideration. The author cites some of these including competence, training, sales requirements, etc. In addition, I would argue (and hope) that the selection of the employee again is made with the needs and requirements of the consumer in mind. Restaurants with a variety of fine wines will typically have

employees more knowledgeable about the choices. Parts stores for serious mechanics will have more informed employees that are able to answer difficult and involved questions.

The point that I am trying to get at here is that while the model presented in this paper is an excellent start, a number of additional factors must be considered. The role that the consumer assumes in the service situation, at least in part, has been predetermined by the aforementioned factors--that is, the situation, the level of competence, involvement, etc. Thus, the consumer has essentially "self-selected" the role that they will be in, and the role that they expect the employee to assume. The model, then needs to consider these antecedents, and should also attempt to incorporate some additional situational factors that may be taking place during the exchange as well. For example, what happens if role expectations are not met? How do role adaptations take place, and so on.

Finally, what takes place after the interaction takes place? It has been noted that the level of consumer satisfaction will be directly influenced by these interactions. If this is true, what impact will this have on attitudes toward the service provider, future shopping behaviors and the consumer's own preparations for future encounters?

COMMENTS ON ORGANIZATIONAL CHARACTERISTICS AND EMPLOYEE EXCUSE MAKING: PASSING THE BUCK FOR FAILED SERVICE ENCOUNTERS

As noted in the previous paper just reviewed, much of the research on service encounters has focused on the employee's role in this exchange. This paper follows along that line, using attribution theory and role theory to pose propositions as to when employee excuse making will be likely to occur. The paper goes on to discuss the importance of employee excuse making and suggests additional research that might be considered.

While this paper itself does not provide empirical support for the propositions, significant and plausible research from other sources is cited to lend credence to the propositions.

What the propositions seem to say in a nutshell is that the more involved the service being provided--involved as in time required to administer, complexity, number of persons involved, etc.--the greater the likelihood of employee deflection activity (excuse making). Other factors such as role conflict and ambiguity and the organization's span of control will also contribute to this process.

What appears to be missing from these propositions are factors similar to those that may have likewise improved the former paper just discussed. That is situational factors, employee involvement, and employee expertise. Most, if not all, of the factors presented here tend to be focused on the service provided, the number of employees, and other work factors. (Role ambiguity does mention the expertise, but needs to be developed in more detail).

Once again, I would argue that the employee's involvement in the service exchange is a critical determinant in their actions. For example, one might expect the service provider who takes pride in his/her work and/or who's income depends upon the customers' satisfaction to approach such deflection strategies differently than a college student that is using the job only as a part-time source of income. Further, the service provider that has both confidence and expertise in his/her abilities may be less likely to make excuses than one with less confidence or knowledge. In the latter instance, the employee may have little choice but to deflect to someone else with more knowledge and/or authority. Finally, the situational factors in operation will also come into play. One of the examples cited in the paper was that of the employee waiting on tables. The amount of time available to the employee, the number of customers waiting, the absence or presence of the boss are just a few of the many situational characteristics that will impact the employee's actions.

In sum, I think this paper offers a contribution in that it poses a number of tangible propositions about excuse making, and suggests a variety of topics for future research.

IMPLICATIONS

Both of these papers raise some interesting managerial issues. For example:

- *hiring practices*--at issue here is the question as to what type of employees should be hired. These reports would suggest that cordial, understanding, and communicative service providers should be sought. In addition, competence, confidence and interpersonal skills are obviously required. Given that everyone doesn't have such attributes, the issue that is raised is where do I find them? How do I keep them?
- *training*--again, both papers indicate the need for formalized training programs. These programs should involve indoctrination as to the channels of authority, how to handle complaint behaviors, etc., as well as instructions on improving interpersonal skills. (How many times have you been to a restaurant when a minor problem is not addressed, or goes unresolved?)
- *establishment of rules and procedures*--many of the problems that may arise in the service exchange process could be avoided or overcome by the establishment of definitive rules and procedures to be followed. While many organizations now have such guidelines, most do not. Developing such rules is not difficult, and would go a long way in providing employees direction.

Incorporating Consumer Judgments into Aggregate Choice Models

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ABSTRACT

Consumers' judgments about choice alternatives are incorporated as covariates in aggregate multinomial logit choice models. Hypothetical multiattribute choice alternatives were presented to consumers in two formats: first as sets of choice alternatives and second as conjoint profiles. Aggregate choice models were estimated for the multiattribute alternatives using an ANOVA formulation, and also estimated using the conjoint profile ratings as a covariate in an ANCOVA formulation. Including the covariate provides a measure of the overall preference for the alternative after taking into consideration its attributes. Implications of including covariates in choice models are discussed.

INTRODUCTION

In aggregate consumer choice models, respondents' choices are gathered by survey, then analyzed in an effort to understand the factors affecting those choices. Consumer choices are modelled as a function of either the utilities for the choice objects themselves or the utilities for the attributes comprising the objects. Parallel to traditional conjoint analysis, these utilities are often estimated with dummy variable regression or ANOVA, using categorical independent variables. Aggregate level models of consumer choices typically do not consider the simultaneous effects of choice objects and choice attributes. In addition, they do not consider the effects of continuous variables, as in logit models used with scanner data. Thus, the applicability of these models is restricted in terms of the choice phenomenon which can be modelled realistically and in terms of the types of data which can be included in the model. These two limitations can be addressed by including choice related covariates in a new model which draws concepts from market share analysis and from hybrid conjoint analysis.

This paper outlines previous models used in consumer choice and market analysis, then investigates the advantages of combining elements from both. A model which might be termed an aggregate hybrid choice model is proposed and its application illustrated in a transportation context. Implications for including covariates in aggregate consumer choice models are discussed.

DEVELOPMENT OF THE MODELS

All of the models addressed in the present research stem from Luce's (1959) choice axiom, which states that the probability of choosing one alternative

from a set of alternatives can be modelled as the utility for that alternative divided by the sum of the utilities for all the alternatives in the choice set. Often formulated in marketing as the multinomial logit (MNL) model, this approach has been used extensively for both studies of consumer choice and studies of market share.

Consumer Choice Models

Batsell and Lodish (1981), Mahajan, Green, and Goldberg (1982), Louviere and Woodworth (1983), and others have applied the MNL model to the analysis of consumer choices derived from experiments and surveys. An alternative's share of choices is modelled as the utility for that alternative divided by the utility for all alternatives in the set.

The design of consumer choice studies will be briefly outlined. Typically, the respondent's task in such research is to choose one alternative from each set of available alternatives (e.g., Louviere and Woodworth 1983), or to allocate fixed resources to the alternatives in each set (e.g., Mahajan, Green, and Goldberg 1982). Parallel to traditional conjoint analysis, multiattribute alternatives can be constructed from a factorial design. Alternatives could also represent wholistic objects, such as actual soft drinks. One approach to constructing the choice sets is to consider each alternative as a factor in a second factorial design, with two levels on each factor: include the alternative in the set or exclude it. Unique sets of alternatives will be generated from this two step process. Besides the alternatives, Louviere and Woodworth (1983) suggest that each choice set contain a "none of these" option which serves as a baseline for comparison.

The data are often aggregated across respondents, resulting in the frequency with which each alternative was chosen from each set. Louviere and Woodworth (1983) sum discrete choices across respondents; Mahajan, Green, and Goldberg (1982) average subjects' allocations across alternatives. Batsell and Lodish (1981), on the other hand, present an individual level choice model.

One model employed in analyzing aggregate consumer choice data is the analysis of variance (ANOVA) formulation operationalized by Louviere and Woodworth (1983) as:

$$\ln(m_{is}) = \mu + \mu_i + \mu_s + \epsilon_{is} \quad [1]$$

where

m_{is} = number of times alternative i was chosen from set s

μ = intercept

μ_i = main effects for alternatives ($i=1,2,\dots,I$)

μ_s = main effects for choice sets ($s=1,2,\dots,S$)

ϵ_{is} = error term

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The dependent variable is the log of the number of times alternative i was chosen from set s , across respondents. The μ_s control for the influence of choice set and are usually not of interest. When the "none of these" option is included in the choice set, then the effect of each alternative $i = \mu_i - \mu$. Parameters representing the utilities for the alternatives could be estimated by dummy variable regression. Mahajan, Green, and Goldberg (1982) discuss a related ANOVA formulation of the problem.

Louviere and Woodworth (1983) and Louviere (1988a) illustrate several variations on this basic model. For example, if the μ_i represent multiattribute alternatives constructed by the analyst, then alternatives could be examined at the level of the attributes comprising the objects. In this case Model 1 could be re-written as:

$$\ln(m_{is}) = \mu + \sum_{k=1}^K \beta_k Z_{ik} + \mu_s + \epsilon_{is} \quad [2]$$

where all terms are as defined before except the Z_{ik} are dummy variables denoting the level of alternative i on attribute k , and the B_k are the estimated parameters for each attribute k .

Proposed Models

Cooper and Nakanishi (1988), among others, illustrate the use of the MNL model in analyzing market shares. Often labelled the attraction model, the market share for a brand is modelled as its attraction relative to the attraction of all the brands in a market. The attraction for a brand is, in turn, seen as a function of its marketing efforts. This model has been used to examine the effects of promotions, for example, on market shares (Guadagni and Little 1983). The data usually come from scanner data or panels. Cooper and Nakanishi (1988, p 118) point out that the MNL formulation of the attraction model is equivalent to the analysis of covariance model (ANCOVA), which can be expressed as:

$$\ln(m_{is}) = \mu + \mu_i + \mu_s + \gamma * X_{is} + \epsilon_{is} \quad [3]$$

Parallel to the consumer choice equation shown in Model 1, the effects of brands (alternatives) and time periods (choice sets) are captured by μ_i and μ_s , respectively. In addition, the market share model includes the marketing effort (e.g., promotions) for brand i at time s , X_{is} , as a covariate.

The proposed models to be investigated in this study apply this ANCOVA formulation, typically seen in market share analysis, to aggregate consumer choices. Using Model 3, the effect of a covariate could be investigated in conjunction with the utilities for the choice alternatives. A covariate could also be included in Model 2, resulting in:

$$\ln(m_{is}) = \mu + \sum_{k=1}^K \beta_k Z_{ik} + \mu_s + \gamma * X_{is} + \epsilon_{is} \quad [4]$$

Note that the covariate, X , is indexed by i and s indicating that it varies by alternative and choice set. One possible variable to use as the covariate is a measure of the consumers' overall rating judgments about the alternatives chosen from a set. These judgments could come from a traditional, profile at a time, conjoint task. To calculate the covariate, consumers' judgments about the alternative chosen from a set can be aggregated by:

$$X_{is} = \left(\sum_{r=1}^R X_{ir} * C_{irs} \right) / \left(\sum_{r=1}^R C_{irs} \right) \quad [5]$$

where $C = 1$ if respondent r chose alternative i from set s , and zero otherwise. And where X_{ir} is respondent r 's overall judgment about alternative i . Mathematically this is simply the mean rating given for the choice object by all people who chose it from that set. Note that as in hybrid conjoint, the X_{is} and the Z_{ik} could be correlated, resulting in biased estimates. We can test this by comparing Models 2 and 4.

This covariate would be analogous to the use of self-explicated judgments in hybrid conjoint (e.g., Green 1984, his equation 2). In hybrid, responses to conjoint profiles can be modelled as a combination of respondent level utilities for the alternatives and group level utilities for product attributes. In Model 4, the choices are a function of the set level preference for the alternative, X_{is} , plus the "market" level utilities for attributes, Z_{ik} . Thus, both the decompositional aspects of Model 2, breaking the choice object down to its component attributes, and the total compositional aspects of Model 1, considering the choice object as a whole, are incorporated. On the other hand, including the judgmental covariate into Model 3 may have a small effect on the explanatory power of the equation because the ratings, X_{is} should be somewhat redundant with the estimated alternative utilities, μ_i .

THE STUDY

From an applied point of view, the objective of the study was to determine consumer preferences for different modes of public transportation at given prices and given levels of scheduling convenience. Transportation has often been studied in choice analysis (Ben-Akiva and Lerman 1985, Louviere 1988b). The sponsor of the project, an inter-city bus line, was interested in comparing consumer preferences for bus and train trips, and also for bus and plane trips. This marketing problem provided an opportunity to compare aggregate consumer choice models estimated in the more common ANOVA multinomial logit formulation with those estimated by the proposed ANCOVA model. In particular, does the inclusion of a consumer judgment covariate improve the explanatory power of the models?

Materials and Procedure

To generate the multiattribute alternatives considered in this study, 3 attributes, each having 2 levels, were selected after consulting with corporate management and reviewing previous research. The

first attribute, Z_1 , mode of transportation, could be a bus or one other mode. One group of respondents chose between bus and plane alternatives; the other group, between bus and train alternatives. The second attribute, Z_2 , price, could be low or high, with the high prices approximating the actual cost of taking a 350 mile trip, and the low price about 1/3 less. Finally, the third attribute, Z_3 , arrival and departure scheduling convenience, could be either "very convenient" or just "convenient." Eight alternatives were then generated based upon all the combinations of the 3 attributes at 2 levels each.

Developing the choice sets entailed a double conditional design, as explained in Louviere (1988a). First, 4 of the multiattribute combinations were selected. Specifically the following multiattribute alternatives were of interest:

- Alternative 1: bus, low price, convenient
- Alternative 2: bus, high price, very convenient
- Alternative 3: other mode, low price, very convenient
- Alternative 4: other mode, high price, convenient

Second, these 4 alternatives were then treated as factors in a 2^4 factorial design, in which each alternative was either included or excluded from the choice set. The design generates 15 choice sets with 1 to 4 alternatives, plus the "none of these" option, in each set. Respondents considered each set then circled the one alternative they preferred the most.

In addition, consumers' gave their overall judgment about the 8 multiattribute alternatives created from the 2^3 design. Each alternative was presented in a traditional conjoint profile format. Respondents judged how likely they were to take the trip described in each profile and circled a number ranging from 0 to 100.

In terms of administration, every respondent received a 4 page questionnaire which started with an explanation of the nature of the project (but no identification of the sponsor) and a brief statement asking respondents to think about a trip of 350 miles when answering, then the 15 choice sets, the 8 conjoint profiles, and several demographic questions.

Samples

Using a convenience sample, interviewers completed usable questionnaires with a total of 100 travelers from three locations: an inter-city bus terminal, a train station, and an airport. Group 1 respondents consisted of 26 inter-city bus riders and 26 plane riders; variable Z_1 could be a bus or a plane. Group 2 respondents consisted of 24 inter-city bus riders and 24 train riders; variable Z_1 could be a bus or a train.

Analysis

The input data for the analysis consisted of the number of times each of the 4 alternatives, plus the "none" option, was chosen from each set, and the ratings for those same 4 alternatives. The rating for

the "none" option was assumed to be zero; the ratings for the other 4 alternatives not involved in the choice task were not analyzed.

To analyze the data, multiple regression equations were estimated for Models 1 through 4 for Group 1, the bus and plane riders, and estimated again for Group 2, the bus and train riders. Dummy variable coding of the categorical independent variables follows Louviere (1988a); in particular for Models 2 and 4, the low values for each attribute (and "bus") were coded as -1 and the high values as +1. In all cases, the equations were estimated by a weighted least squares method because choice frequencies are often heteroscedastic (Louviere and Woodworth 1983). The observed frequency of choices, m_{aj} , were used as weights in the general linear models procedure of SAS (SAS Institute 1979).

RESULTS

The results of estimating Models 1 and 3, which consider the alternatives as wholistic objects, appear in Table 1. The estimated utilities for the alternatives are presented, both without and with adjustment for the judgment covariate. Note again that the regression estimated parameters for the l_j should be interpreted as the difference between the alternative and the intercept. (The intercept term and set effects are not presented.) The mean judgmental ratings of the alternatives, X_{js} , should be highly collinear with the estimated utilities for the alternatives. In fact, including the covariate decreased the level of significance of the utilities. Evidence for this collinearity is also seen in the fact that the R^2 values do not increase from Model 1 to Model 3 when the covariate is included. For the bus and train group the covariate has only a marginal ($p < .10$) level of significance, and was not significant for the bus and plane group.

The more interesting case considers including the covariate in the estimation of the utilities for the attributes which comprise the alternatives. Table 2 presents the results of Models 2 and 4 where attribute utilities are estimated both without and with the judgment covariate. In both groups of respondents, the covariate is significant. As a result, the R^2 values increase over 20 points with the inclusion of the covariate, up to the same levels found with Model 1. The fact that the explanatory power of Model 2, based on attributes, is below that of Model 1, based on alternatives, could be interpreted to mean that respondents were choosing on the basis of the whole object rather than simply on its component attributes. This interpretation is also encouraged by the large increase in R^2 with the inclusion of the covariate in Model 4 because the covariate is again a wholistic representation of the choice alternative.

The signs and relative magnitudes of the attribute utilities in Table 2 do not change from Model 2 to Model 4, because the covariate affects the intercept more than the attribute slopes.

There does not seem to be a problem with multicollinearity between the covariate and the attributes. In every equation, price, Z_2 , had the largest

TABLE 1
ESTIMATED PARAMETERS FOR CHOICE ALTERNATIVES WITHOUT AND WITH
ADJUSTMENT FOR CONSUMER JUDGMENTS

Group	R ²	Utilities for Alternatives				Covariate
		μ_1	μ_2	μ_3	μ_4	X_{is}
Bus & Train						
Model 1	.94	1.62*	-.04	2.47*	.46*	—
Model 3	.95	.64	-.57	1.37*	-.26	.01
Bus & Plane						
Model 1	.92	1.05*	.21	2.17*	.12	—
Model 3	.92	.96	.13	2.06*	.03	.00

*Significant at 0.05.

TABLE 2
ESTIMATED PARAMETERS FOR ATTRIBUTE UTILITIES WITHOUT AND WITH ADJUSTMENT
FOR CONSUMER JUDGMENTS

Group	R ²	Attribute Utilities			Covariate
		Z ₁	Z ₂	Z ₃	X_{is}
Bus & Train					
Model 2	.68	.32*	-.94*	.05	—
Model 4	.94	.23*	-.65*	.11*	.02*
Bus & Plane					
Model 2	.71	.24*	-.75*	.30*	—
Model 4	.92	.20*	-.67*	.28*	.01*

*Significant at 0.05.

absolute impact on choice. Bus and train respondents were more sensitive to mode of transportation, Z₁, than to convenience, Z₃; but the opposite occurred in the bus and plane case. Interpreting the coefficient for the covariate requires considering the choice elasticity with respect to the judgment rating, $\gamma^*X_{is} (1 - m_{is})$. In other words, the impact of the covariate is in part a function of the share of choices (Cooper and Nakanishi 1988).

DISCUSSION

This paper has investigated the inclusion of a covariate in aggregate consumer choice models, in contrast to previous applications in marketing which have typically involved only categorical independent variables. Model 4 in particular presents some interesting possibilities because it allows for simultaneous estimation of the utilities of the

attributes and the estimation of an overall alternative effect. There are both substantive and methodological advantages attained from including a covariate. First, the model avoids the assumption that each choice alternative must be considered only as one whole object (i.e., Model 1) and, on the other hand, avoids the assumption that a choice alternative must be considered as simply the sum of its parts (i.e., Model 2). Both alternatives and attributes are represented in the model. If the covariate is insignificant, indicating that the choices depend on the attributes alone, then the formulation reduces to Model 2, the more typical approach. In this study, however, the covariate was highly significant, pointing to the conclusion that consumers' choices involve both overall judgments of the object and weighting of its attributes. In a sense, the covariate captures the "brand equity" effect for the choice alternative above and beyond its attributes. Essentially, we can partition the aggregate choices

into the effects due to attributes and the effect due to the object itself. Second, drawing upon previous concepts in market share analysis and in hybrid conjoint analysis, the ANCOVA formulation extends the applicability of aggregate consumer choice models based on survey data to situations involving continuous variables. Thus, the model provides a more flexible approach statistically and what may be a more realistic approach conceptually.

There are several avenues for improvement upon the model and for future research. This project was limited in terms of the number of respondents and in the number of alternatives considered. More interesting designs could have been employed in the construction of the alternatives and choice sets. The focus of the research was instead on the effect of the covariate. Future research could consider using other variables such as income or age as covariates, as well as self-explicated data. Also other methods of calculating the covariate could be devised, though it must vary by both alternative and set, or its effect will be absorbed by the dummy variables. Though it was not a problem with these data, the covariate could be related to the choice attributes. The structure of the model is limited to the extent that these are correlated, biasing the estimates. It is often assumed that the utilities for alternatives should not differ by choice set, following from the independence from irrelevant alternatives (IIA) property of Luce's individual choice axiom. According to Ben-Akiva and Lerman (1985), however, this property need not hold at the group level. They suggest that logit models should incorporate socioeconomic variables, for example, to capture market place heterogeneities. Further study is needed in marketing on the effect that including covariates has on the IIA property.

There have been relatively few published research studies in marketing using aggregate choice modelling based on consumer surveys or experiments, particularly when compared to the number using conjoint analysis, its close relative. Even a recent review of the commercial use of conjoint (Wittink and Cattin 1989) and a recent overview of new directions for research in conjoint (Green and Srinivasan 1990) have little to say about the aggregate choice approach. The models investigated in this project may expand the applicability of the aggregate approach to more marketing problems.

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Validating Realtime Response Measures

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Realtime measures provide a rich source of information regarding consumer attitudes, feelings, and judgements about stimuli. Television advertisements are particularly well suited to this form of measurement. Although popular with practitioners, realtime measures have not received much attention from researchers who struggle with important issues regarding their reliability and validity. The authors report on the results of a validation study using the Multitrait-Multimethod matrix first proposed by Campbell and Fiske (1959). They find evidence of construct validity and make suggestions that will facilitate future assessment of the validity of real time measures.

Consumer researchers have traditionally had to deal with limitations when collecting consumer responses to audio/visual stimuli. Most methods of data collection require either interruption in the stimulus to elicit a response, or subject response after exposure. When the subject is responding to a stimulus, such as a TV ad, interruptions can be intrusive and post exposure responses make it difficult to measure dynamic responses over the period of the exposure, making process tracing difficult. One way to overcome these problems is to use data collection methods that allow subjects to respond continuously over the course of an exposure. One such method is realtime response measurement.

Realtime response measurement has become the generic term for techniques that allow subjects to respond whenever they wish to continuous stimuli such as television commercials, speeches, sales presentations, lectures, presentations to mock juries, and television programs. Systems used recently by commercial researchers required subjects to push buttons, turn dials, or move sliders (Porado 1989). The methods can be traced to the 1930s when George Gallup used his method to help edit *Gone With the Wind* and Frank Stanton and Paul Lazarsfeld developed a system to test CBS programs. The equipment was bulky and analysis of the output was limited. The few studies reported in the marketing literature have been consulting reports (e.g., Polsfus and Hess 1989). Microcomputer and video technology in the last decade made the equipment portable and extended the methods of analysis, providing new opportunities for academic research.

Figure 1 shows an example of the output that can be generated from realtime measures. It shows results from a control group that watched eleven thirty-second commercials and a weather report. Subjects watched the entire set twice, first dialing for

affect (favorability of feelings) and then dialing for cognition (usefulness of information), each time using a continuous rotary dial with a range of 1-100, where 50 is considered 'neutral'. As can be seen from the figure, subjects sometimes showed no similarity between judgements of usefulness and favorability-as in the first ad for Budweiser, and sometimes showed a high correspondence between the two, as in the second ad for Upjohn. Realtime measures can provide a rich source of information regarding consumer attitudes, feelings, and judgements about stimuli. Television advertisements are particularly well suited to this form of measurement. Although popular with practitioners, realtime measures have not been subjected to tests for reliability, validity, and replication of findings using other measures. An exception is Hughes and Lennox (1990), who reported high week-after retest reliability. Our purpose here is to explore these issues using the Multitrait-multimethod matrix (MTMM) first suggested by Campbell and Fiske (1959). But first, we give an example of how realtime measurement methods can contribute to an existing area of research.

AN APPLICATION

Brand Attitude and Ad Attitude Relationships

One area where realtime methods can contribute to consumer research is the study of the mediating role of the attitude toward an ad (Aad) on the attitude toward a brand (Ab) (e.g., Burke and Edell 1989; MacKenzie and Lutz 1989; MacKenzie, Lutz and Belch 1986). Aad is usually a single measure or scale administered after exposure to the ad. Such measures are subject to errors in recall and tell us nothing about the processing of the ad that produced the final attitude. While some researchers are beginning to note the need to measure processing directly (e.g., Heath 1990), consumer research tends to rely on analysis of variance or path analysis to infer process.

If we measure each subject's processing directly we can examine consumer decision processes more simply. We can then examine how prior brand attitudes affect ad processing and how ad processing revises brand attitudes. This results in a modification of the traditional model which might look like this:

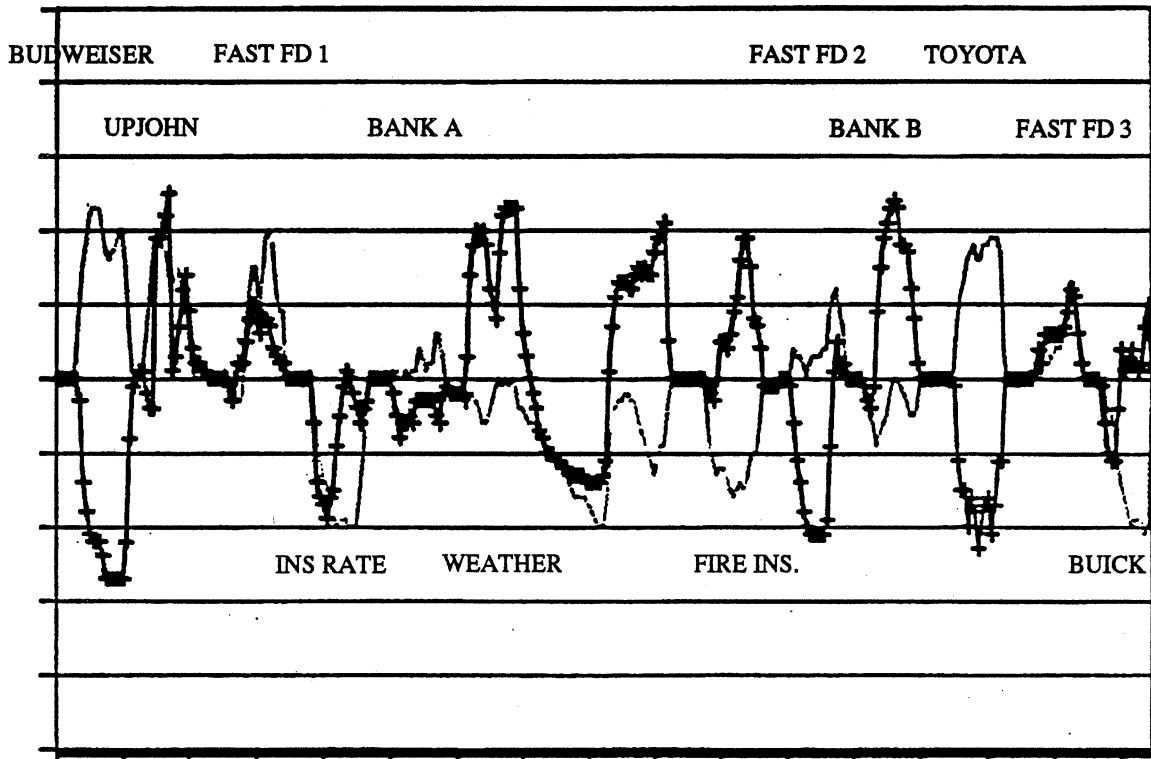
$$Ab_{t1} \rightarrow \text{Processing Ad}_{t1} \rightarrow Ab'_{t1}+$$

where processing Ad has replaced the traditional Aad as the mediating factor.

Realtime measures can help us capture data that reflects the processing of the ad. Instead of a single post exposure measurement of, say, how the ad made subjects feel, we can have up to 150 measures taken at equal intervals over the course of a thirty second commercial. Because consumers will see an ad many

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FIGURE 1
Sample of Realtime Curves Showing Affect and Cognition



times, we must expand the traditional model for additional exposures.

$$Ab_{t1} \rightarrow \text{Processing } Ad_{t1} \rightarrow Ab'_{t1+} \rightarrow \\ \text{Processing } Ad_{t2} \rightarrow Ab'_{t2+}$$

This approach suggests not only that the processing of the ad is important, but also that processing of ads may change over the course of multiple exposures. Understanding how processing changes may provide valuable insights into how and why brand attitudes change over the course of an ad campaign. Further development of this model is beyond the scope of this paper, however, it illustrates one application of the realtime method and shows why we will benefit from its use, provided validity can be demonstrated.

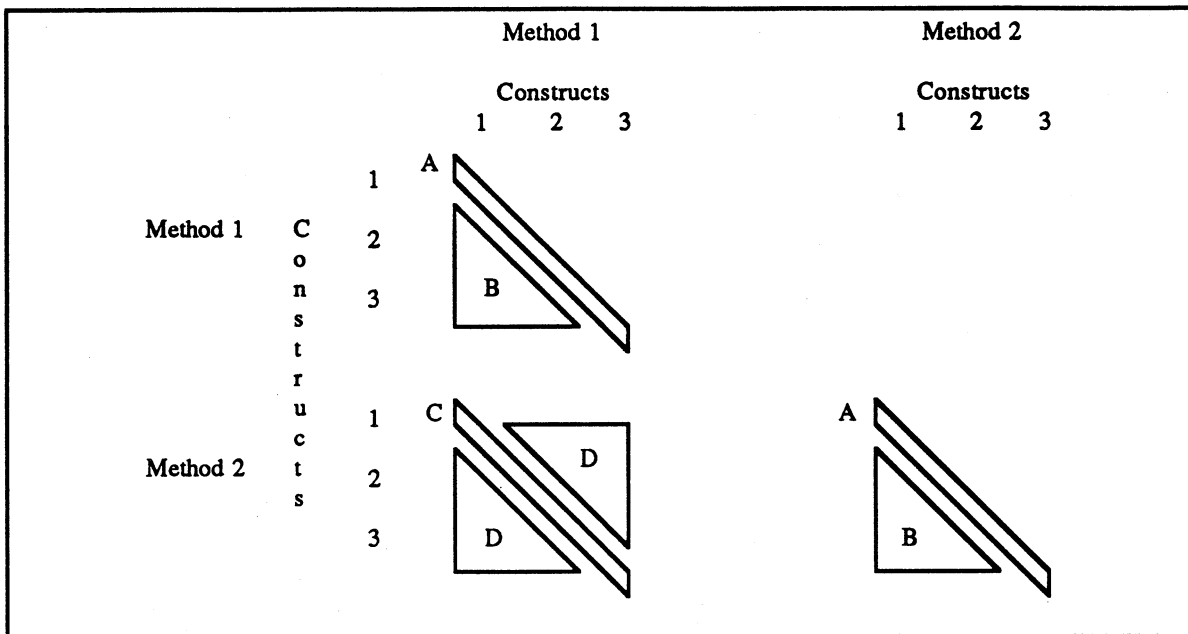
Construct Validation

If realtime measures are to prove helpful in academic research, we must have confidence in their

value. Our focus here is on construct validity, specifically, the measurement issues of construct validity that require that measures of a construct must reflect levels of, and variations in, that construct only. Peter (1981) described two ways of viewing construct validity. The first is whether the construct is appropriate and helpful for examining the concepts which underlie the behavior of interest. In this case we must consider whether the constructs of interest in our study, affect and cognition, are appropriate for studying subjects' reactions to advertisements. There is a significant body of work that uses affect and cognition as key constructs in the study of attitudes and attitude change, (e.g., Mackenzie, Lutz and Belch 1989; Petty and Cacioppo 1982) while others have focused on related concepts such as the hedonic and utilitarian components of attitude (Olney, Holbrook and Batra 1991). These works have established evidence that the constructs of interest here are valid and appropriate to the field of study.

The second approach to construct validity mentioned by Peter (1981) asks whether the measures

FIGURE 2
The Multitrait-Multimethod Matrix



being used are actually measuring the constructs of interest. We focus on this definition of construct validity throughout the remainder of this paper. We are concerned with demonstrating whether realtime response measures of affect and cognition are actually providing us with measures of the constructs of interest. Peter points out that this task is difficult because we cannot directly assess this form of construct validity, rather we can only infer it from evidence provided by testing our measures.

Churchill (1979) details eight steps for the improvement of marketing measures. Included are the assessment of reliability and the assessment of validity of measures. For these purposes he recommends the use of multiple measures of constructs in order to perform tests of reliability and validity. Churchill recommends against using test-retest measures of reliability, however, the continuous responses from realtime measures are not likely to suffer from the same effects as scale items with discrete response choices. For a discussion of these issues see Hughes and Lennox (1990), who demonstrated reliability using test-retest realtime measures. Our focus here is on validation using multiple measures.

Campbell and Fiske (1959) provide guidelines for the examination of issues of validity. Their description of the Multitrait-Multimethod (MTMM) matrix and its application to the validation of constructs has been widely used and is still central to validation studies today (e.g., Bagozzi and Yi, 1991). In this case, the MTMM matrix examines reliability and two dimensions of construct validity, discriminant validity and convergent validity.

Campbell and Fiske advocate measuring multiple concepts using multiple methods - and computing the correlation matrix between the different

concepts (traits) as measured by each method. Three components of construct validity are reflected in these correlations. They are the trait component, reflecting the interdependence between two traits; the method component, reflecting the interdependence between two methods; and error. In examining validity we focus on the convergence of 'maximally independent' methods and therefore hope for evidence of a low method component. Ideally, we should find evidence that the correlation between measures of a single trait using two methods is due to the trait, not because the methods have covariation in their responses.

Traditional methods of validation use single values for comparison with other measures. For example, if we wish to examine the validity of a Likert scale item we might compare it to other Likert scale items intended to measure the same construct, or compare it to a semantic differential scale item. Each of these methods, including the MTMM matrix, uses a measure of the construct taken at some point in time. For dynamic data, such as that provided by realtime measures, the problem is one of adapting the realtime measure to a static measure for comparison. This issue is addressed in the methods section.

The Multitrait-Multimethod Matrix

The MTMM matrix is based on the comparison of multiple measurement methods measuring a set of constructs. Figure 2 shows an example of a MTMM matrix. The example shows a comparison of two methods, each measuring three constructs. Entries in the matrix are the correlations between the measures of the constructs using the method indicated for each quadrant. For example, the value in the upper left hand corner of the top region labeled B is the correlation

between construct 1 as measured by method 1 and construct 2 as measured by method 1.

The matrix provides three primary forms of validation: reliability, convergent validity and discriminant validity. The diagonals in the upper left and lower right quadrants, labeled A, represent measures of test-retest reliability. These test-retest correlations should be examined within and across groups (Churchill 1979). The test-retest results are not of primary interest in this study, although they are reported in the results section for completeness.

Convergent validity occurs when two or more different measurement methods produce similar results for the same construct. Region C in Figure 2 shows what Campbell and Fiske (1959) call the validity diagonal. Correlations in this region compare different methods of measuring the same construct and should be significantly different from zero.

The MTMM matrix provides three criteria for the determination of discriminant validity, the ability of a method to reflect the variation in the construct being measured and not other constructs that are separate and distinguishable from it. The upper and lower triangles, labeled B and D in Figure 2, are compared with the values in the validity diagonals to evaluate discriminant validity. Discriminant validity is interpreted using the following comparisons:

1. Values in the validity diagonal (C) should be larger than the values that appear in the regions labeled D. This is the most basic requirement in that it simply means that different measures of the same variable should have a higher correlation than correlations that have neither trait nor method in common.
2. Values in the validity diagonal (C) should be larger than the values that appear in the regions labeled B. These regions represent correlations between measures of a single method taken on different traits, which should be smaller than the correlations between different measures of the same trait.
3. The pattern of correlations in the heterotrait triangles, labeled B and D in the Figure, should be similar in each triangle. This criteria requires that at least three traits (constructs) are measured so cannot be applied to our work here.

One of the weaknesses of many validation methods is that they provide no decision rules for determining when validity is demonstrated (Bagozzi and Yi, 1991). Rather, patterns of correspondence are interpreted, and may provide justification for further examination of the methods being evaluated. An alternative method for evaluation is structural equation modeling, however, it cannot be used with only two methods and traits. In a future study we plan to add a third method and/or trait and compare the results from the MTMM and a structural model.

We examine the validity of realtime measures by interpreting the patterns of correlations in the

MTMM matrix. We measure two traits, affect and cognition, using two methods, realtime measurement and Likert scales. We are looking for patterns of correlations, rather than perfect correlations, because we don't believe that a realtime curve measures exactly the same dimensions of the constructs as the Likert scale. The MTMM matrix is well suited to this situation because it focuses on the correspondence in patterns of measures rather than absolute correlations.

RESEARCH METHODS

One hundred and six paid subjects were recruited from a large university in the south. Four subjects were dropped when they failed to appear for the second session of data collection. While student subjects would not normally be used in tests of advertisements, it is appropriate in this case since our interest is the method of measurement. Subjects were randomly assigned to two test groups that saw the same ads. Each group saw the series of ads four times, twice each in two sessions that were one week apart.

The one-hour procedure included an instructional videotape, so all subjects received the same instructions. The video-taped instructions help to ensure that all subjects used the same standards when dialing and used fifty as their neutral point throughout an ad. They then responded to demographic and attitude questions that appeared on the television screen by pushing buttons on the keypad they each had in front of them. Next they dialed continuously as they watched the stimuli. The test stimuli reported here consisted of four television commercials embedded in a series of eleven thirty second television ads and a weather forecast. Some commercials came from cooperating companies while others were taken off the air. Subjects saw all 11 commercials and the weather forecast for a total time of ten minutes. The test ads were shown in the third, seventh, eighth and ninth positions and were chosen from among three sets of ads that represent low, medium and high levels of involvement for subjects. The high involvement ads were for a pizza chain, the moderate involvement ad was for a local bank and the low involvement ad was for homeowner's insurance. Involvement was considered a potential alternate explanation for the variance in correlations. An F test showed that involvement did not have a significant main effect ($F=.00$) on the correlations in the validity diagonals and so is not considered in further analyses.

The system used for this research is a fourth generation system that has both a 1-to-100 dial for continuous stimuli and a keypad for discrete responses to categorical questions. The first time subjects saw the stream of commercials they dialed for affect on the 100 point scale. Subjects were instructed to start their dial at fifty and dial 'up' when their feelings about the ad were favorable and dial 'down' when their feelings about the ad were unfavorable. The second time they dialed for cognition, evaluating the uselessness-usefulness of the information in the ads. After seeing the stimuli, subjects used their keypads again to answer questions that included the Likert scale criterion measures. The commercials were then played back to them for discussion and debriefing. The same

procedure was followed one week later, using the same commercials in the same order, to minimize alternative sources of variation in the test-retest measures.

There are many ways to reduce the realtime curve to a single point so that we can compare them to Likert measures. We want to choose a method of reduction that gives a measure that provides the same information given by the criterion measures. The criterion measures used for validation are retrospective assessments using Likert scale items measuring overall affect and cognition. The scale items were as follows: For affect, subjects responded on a five point scale ranging from very unfavorable to very favorable to the question, how did the ad make you feel? For cognition subjects answered the question, how useful was the information in the ad? They responded on a five point scale which ranged from very useless to very useful. We therefore hypothesize that the Likert items are most similar to an overall evaluation of the ad, represented by the average of the realtime curve values. If this is true, the average of the realtime values should be more highly correlated with the Likert items than any single point from the curve, which represents a response at only one particular moment. We should stress there are other possible summarizations of the realtime curve values and more examination is required before we can be confident what summary statistic best corresponds to a post-exposure scale item.

To test our hypothesis we computed correlations between the Likert item for affect and the four quartile points (i.e., the values at 7.5, 15, 22.5 and 30 seconds) on the affect curve, as well as the average value for the entire curve. The same process was repeated for cognition. As expected, the average of the curve was consistently more highly correlated with the criterion measure than the single values. This provides evidence that the most appropriate value, of those considered for use in the MTMM matrix, is the curve average. The problem here is that our criteria says the best single summary measure should be the one which correlates most highly with our criterion measures. But this also assures us of the best possible results, namely the highest possible correlations in the MTMM. For this reason it is important to stress that this work must be extended with other measures and methods before results can be considered conclusive.

RESULTS

MTMM matrices for the four test commercials were computed for subjects from week one and week two. Due to coding problems the insurance ad from week one had to be dropped. The seven matrices appear in Tables 1 and 2. They consist of correlations between the two measurement methods, Likert scale and realtime, and the two constructs measured, general affect for the ad and a rating of the usefulness of the information in the ad, or cognition. The first MMTM matrix in Table 1 has been partitioned to correspond to the regions shown in Figure 2 to aid interpretation.

In the test of convergent validity there are seven validity diagonals, one for each ad, each with

two values, for a total of 14 possible correlations between measures of a construct under the two methods. Eleven of 14 correlations are significant at the .05 level. As can be seen in the Tables, the values ranged from .16 to .73 with an average validity diagonal value of .50. We interpret this as moderately strong evidence of convergent validity and as strong support for the further examination of the realtime method.

The first criterion for discriminant validity involves a comparison of the values in the validity diagonals with the row and column elements in the hetero-method matrix (the values in regions labeled D in Figure 2). Of the twenty-eight possible comparisons, twenty-five were in the correct direction, the validity diagonal elements were higher than the off diagonal elements in the same matrix. Although, in some cases, such as Pizza #3 week 2, the values were very close.

The second criterion for discriminant validity requires comparison of the validity diagonal values with the relevant hetero-trait measures. For example in the first MTMM matrix in Table 1 this means that the .16 and .65 values in the validity diagonal would each be compared with the .24 in column one and .78 in column three. Under this criterion measure seventeen of the twenty-eight relationships are in the desired direction. Of the eleven relationships that are not in the right direction, nine of them are the result of very high correlations between the Likert items for affect and cognition. In six out of seven ads the correlation between Likert measures of affect and cognition were higher than realtime measures (e.g., .78 versus .24 in the Pizza #3 ad, table 1). This indicates a higher covariation between measures of different traits using the Likert method than with realtime. There are several possible reasons for this: First, it may be because subjects are less able to separate affective and cognitive reactions to an ad after exposure - seeking instead for a consistent reaction that combines both. Second, it may be because the Likert scale suffers from an inability to separate affective from cognitive responses. Third, it may reflect demand artifacts or the desire to appear consistent on the Likert items. Finally, it may be the result of the limited number of responses available with a Likert scale. In contrast, realtime measures have previously been demonstrated to discriminate between affect and cognition in Hughes and Lennox (1990).

The third test for discriminant validity was not performed because only two constructs were measured, affect and cognition. In the future we plan to add a third construct, purchase intentions. This addition will allow us to use the third method for evaluating discriminant validity.

Test-retest measures of reliability are included in the Tables for information. The average test-retest correlation is .53. This low number is caused in part by the low scores for the realtime measures of affect, average .25. Without these, the average correlation is .64. There are several possible reasons for the low scores: First, they represent a first and second exposure to the stimuli, and as such are not

TABLE 1
First Week Multi-Trait Multi-Method Matrices

Ad		RT Aff	RT cog	Lik Aff	Lik Cog
Pizza #3	RT-A	.36			
	RT-C	.24	.65		
	Lik-A	.16	.32	.82	
	Lik-C	.32	.65	.78	.80
<hr/>					
Ad		RT Aff	RT cog	Lik Aff	Lik Cog
Pizza #8	RT-A	.24			
	RT-C	.64	.74		
	Lik-A	.66	.62	.32	
	Lik-C	.53	.73	.78	.80
<hr/>					
Ad		RT Aff	RT cog	Lik Aff	Lik Cog
Pizza #9	RT-A	.38			
	RT-C	.44	.49		
	Lik-A	.60	.29	.76	
	Lik-C	.19	.36	.28	.34

NOTE: RT refers to realtime measures, Lik refers to Likert measures.

representative of the same test. Second, test-retest of realtime measures will be more accurately reflected in a point by point matching of subject responses, rather than a comparison of averages. The point by point comparison was used by Hughes and Lennox (1990). Finally, wearout may be a factor.

DISCUSSION

The results provide evidence that realtime response measures display both convergent and discriminant validity. These findings are strongly consistent with the recommendations of the MTMM model and give direction for future research. Researchers using realtime methods of measurement

should consider the following recommendations to allow additional validation studies to be done. First, multiple scale items should be used for the criterion measures as a comparison with the realtime measures. This is important for two reasons: 1) Multiple items with demonstrated reliability will provide a better measure of the underlying construct. 2) If we believe that the realtime response captures many aspects of the construct being measured, then we would expect that multiple scale items should more accurately reflect what we believe the realtime method to be measuring. Second, future designs should be balanced to account for possible order effects. This would apply to the order of measures of affect and cognition as well as the

TABLE 2
Second Week Multi-Trait Multi-Method Matrices

Ad		RT Aff	RT Cog	Lik Aff	Lik Cog
Pizza #3	RT-A	.36			
	RT-C	-.06	.65		
	Lik-A	.24	.20	.82	
	Lik-C	.22	.39	.70	.80
Pizza #8	RT-A	.24			
	RT-C	.44	.74		
	Lik-A	.63	.46	.32	
	Lik-C	.38	.49	.60	.80
Bank #9	RT-A	.38			
	RT-C	.38	.49		
	Lik-A	.40	.60	.76	
	Lik-C	.28	.61	.73	.34
Insurance #7	RT-A	.03			
	RT-C	.22	.33		
	Lik-A	.64	.001	.66	
	Lik-C	.36	.42	.30	.76

order of the ads seen. Third, at a minimum, we should add a third method or construct to the MTMM matrix. This would provide additional validation criteria and also permit the use of Campbell and Fiske's (1959) third test for convergent validity. Finally, we should also explore other means of validation, including the use of verbal protocols and trained judges or raters to evaluate realtime measures.

Other applications of realtime methods provide additional opportunities. Processes other than reactions to advertisements such as political speeches, sales presentations or other interpersonal communications are well suited to measurement via realtime. Realtime measures are also appropriate for examining issues of primacy versus recency effects.

Realtime methods provide rich, process oriented measures of subject reactions to dynamic messages. They provide us with the opportunity to perform individual level diagnostics on the process of

interest. They are also preferable to post exposure measures in that individuals are unable to provide retrospective responses about early points in a communication without bias due to having seen the rest of the message (Hughes 1991). With realtime measures we have responses to the communication, up to that point, every fifth of a second. This is useful to researchers who are interested in the process by which attitudes toward messages are formed.

We have provided a demonstration of how methods of evaluating reliability and validity can use measures taken at a point in time to provide evidence of reliability and validity of realtime measures over time. The Multitrait-Multimethod matrix provides evidence that research using realtime measures can have construct validity. We must now explore other methods of validation, ideally with measures that allow us to use all the data in the realtime curve.

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Deriving Attribute Utilities from Consideration Sets: An Alternative to Self-Explicated Utilities

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ABSTRACT

Questions have arisen concerning the use of self-explicated utilities as an element in conjoint analysis. This research proposes an alternative method by deriving utilities from consideration sets. Fifty subjects screened conjoint profiles into groups of alternatives they would accept for consideration, put on hold, or reject. They then completed traditional conjoint and self-explicated tasks. Attribute utilities derived from their consideration sets differed markedly from their self-explicated utilities, apparently reflecting a different aspect of the consumer choice process. In subsequent hybrid conjoint analyses, including the consideration set utilities in place of the self-explicated utilities resulted in a higher R^2 and alleviated the bias in the parameter estimates representing the attribute-level effects.

INTRODUCTION

Researchers attempting to study and predict consumer preferences frequently rely on attribute importance weights and attribute-level desirabilities that are directly elicited from respondents. The collection of such "self-explicated" data, as it is commonly called, is recognized as a useful and relatively efficient approach for modeling consumer choice behavior (Leigh, MacKay and Summers 1984; Srinivasan 1988; Green and Helsen 1989). Interest in self-explicated data has become particularly important recently with the development of "hybrid" conjoint models that combine the data-collection efficiencies of the self-explicated approach with the generality and power of regression-like conjoint preference models (see Green 1984 for a review of hybrid conjoint models). One popular conjoint software package even includes a self-explicated task before respondents evaluate profiles (Johnson 1987). Recent research, however, has noted possible drawbacks to the use of self-explicated data. First, the information-processing assumptions underlying the self-explicated approach may be violated by consumers' actual choice behavior. Second, estimates of attribute parameters may become biased when self-explicated data are included in a regression equation. This paper presents an alternative method for generating attribute utilities that addresses both of these issues.

Choice Behavior Inconsistent with Underlying Assumptions

Fundamental to the self-explicated approach is the assumption that respondents can accurately state which levels within an attribute are acceptable versus unacceptable. Furthermore, it is assumed that respondents use a conjunctive evaluation procedure in which alternatives possessing unacceptable attribute levels will be rejected from further consideration,

while those possessing acceptable levels may be considered depending on the levels of other attributes.

Previous research, however, indicates that people do not always adhere to the conjunctive implications of the self-explicated procedure. In particular, Klein (1986) found that respondents often fail to reject alternatives with attribute levels which they themselves had previously designated as unacceptable. More specifically, she found that 15 percent of the alternatives chosen as best by the respondents in her study possessed an attribute level that was supposedly "completely unacceptable." In a later study, Green, Krieger and Bansal (1988) demonstrated that the tendency to consider alternatives with "completely unacceptable" levels can be somewhat reduced by strengthening the instructions used to rate the attribute-level desirabilities. Interestingly, however, these researchers found that there is still a 47% chance, at best, that respondents will fail to adhere to the conjunctive implications of the completely unacceptable level. In sum, researchers rely on the self-explicated approach, despite the fact that its assumptions are often violated by actual choice behavior.

Bias in Parameter Estimation

Several studies have compared the predictive accuracy of self-explicated models, traditional conjoint models and hybrid conjoint models (Akaah and Korgaonkar 1983; Cattin, Hermet and Pioche 1982; Green, Goldberg and Wiley 1982; Moore and Semenik 1988). Although the results of these studies have been somewhat inconsistent, the traditional conjoint and hybrid conjoint models typically outperform the self-explicated model on a number of cross validation measures (i.e., adjusted R-squared, percent of first-choice predictions and average holdout sample correlations). Interestingly, however, the hybrid conjoint model's improvement over the traditional conjoint model is often not very substantial. According to Green, Goldberg and Montemayor (1981), the variation captured by the self-explicated component of the hybrid model may fail to increase the amount of variance accounted for by the conjoint component. In other words, the information captured by the self-explicated component of the hybrid model may be partially redundant with the information captured by the "conjoint" component.

This problem can be seen by analyzing the effect of adding the self-explicated component to the other terms in the hybrid conjoint model, i.e., the terms reflecting the attribute-level dummy-variables. Adding the self-explicated term to the hybrid model may have an adverse, biasing effect on the parameter estimates of the dummy variables. In particular, dummy-variable parameter estimates that were

previously significant may become insignificant when the self-explicated term is added to the hybrid model. Interestingly, this problem has yet to be addressed in published studies of the hybrid conjoint model.

Given the above problems with the self-explicated approach in general and in its use in hybrid conjoint analysis in particular, it is important to consider alternative approaches for estimating attribute-level desirabilities.

An Alternative to the Self-Explicated Approach

One alternative to the collection of self-stated attribute utility estimates is to derive those estimates based on actual choice behavior. In this paper we describe such an approach, called the "screening" approach, in which respondents are shown full-profile choice alternatives (like those used in traditional conjoint studies) and are asked to decide which of three groups each alternative belongs in: (1) those the respondent would definitely consider selecting, (2) those he might consider selecting and (3) those he would definitely reject from further consideration. As shown below, these "screening decision" responses can then be used to derive utility estimates representing the desirability of each level of each attribute for each respondent.

Study Objectives

In general, one would expect that these screening-derived attribute-level utilities would be somewhat similar to the attribute-level desirabilities obtained using the self-explicated approach. One purpose of this research is to determine whether this is in fact the case. Thus, our first objective is to assess the convergent validity of the self-explicated approach with an alternative approach based on actual screening-decision behavior.

As noted above, the information reflected in the self-explicated term is often redundant with the other terms of the hybrid conjoint model, resulting in biased dummy-variable parameter estimates. Using an alternative term based on the screening-derived attribute utilities may be one way to get around this problem. Thus, the second objective of this study is to assess the extent to which a screening-derived utility term (used in place of the self-explicated term in an alternative hybrid model) reduces the amount of bias in the parameter estimates typically found in hybrid conjoint models.

BACKGROUND

Typically in hybrid conjoint, self-explicated utilities are gathered by having the respondent rate the desirability of each level of each attribute. These utilities are denoted as u_{ij} for the utility of level i on attribute j . Though scales of varying lengths have been employed, a simple three point scale--best, acceptable, unacceptable--is not uncommon (e.g., Green 1984, Figure 3). The respondent notes which single level of the attribute is best, then marks the remaining levels as either acceptable or unacceptable. Then the analyst assigns a score to each point on the

scale, such as best=3, acceptable=2, and unacceptable=1. (Respondents may also be asked to state their self-explicated importance weight for attribute j , but to keep the focus on the attribute level, all attributes in this study were unit weighted.) For the estimation phase of the project, the self-explicated utilities are summed by profile according to the corresponding attribute levels in the profile. This sum represents a holistic, compositional estimate of the utility for that profile. (In some studies, the utilities are not summed; instead weights are estimated for each attribute, though calculating the summed utility appears often, as in Moore and Semenik 1988).

In contrast, this project investigated a different approach to generating the u_{ij} 's, though the ultimate use of the summed utility in estimation was the same. Specifically, the respondent's task differed from the rating approach seen in most hybrid studies. To derive the utilities, respondents screened each profile by assigning it to one of three categories--accept for consideration, hold (undecided), or reject from consideration. Then working from those observed screening decisions, utilities were developed by calculating the probability of accepting, holding, or rejecting, for each level on an attribute. For example, a respondent might screen four profiles with attribute j at level i , rejecting three of the profiles and putting one on hold. The derived probability of rejecting equals 75%, with a 25% chance of holding, and a 0% chance of accepting. A utility value for that level could be calculated by weighing the score for each category by the probability of that category occurring. Thus for an attribute j :

$$u_{ij} = \sum_{k=1}^K p_{ik} s_k$$

where: p_{ik} = the probability that a profile at level i (of attribute j) will be screened into category k

s_k = the numeric desirability score for category k

Note that the typical rating task employed in gathering self-explicated data can also be expressed in these terms; however, the scale value marked by the respondent receives a probability of 100% while all other scale values for that attribute level equal 0% probability.

A brief numeric example should make the steps in deriving the utilities more clear. Assume that a respondent screens twelve profiles, four profiles at each of the three levels on attribute j . The results might be as in Table 1. These same steps would be followed for each attribute. The screening derived u_{ij} could then be treated in the same manner as self-explicated utilities in the estimation phase.

Though mathematically parallel to the self-explicated utilities, the screening derived utilities capture a different aspect of the judgment process. In

TABLE 1
Screening-Based Approach for Deriving Attribute Utilities

		Accept	Hold	Reject	Total
Level 1	(low)	0/4= 0%	1/4=25%	3/4=75%	100%
Level 2	(medium)	1/4=25%	2/4=50%	1/4=25%	100%
Level 3	(high)	2/4=50%	2/4=50%	0/4= 0%	100%
	Score	3	2	1	
	u_{1j}	$= (.00*3) + (.25*2) + (.75*1) = 1.25$			
	u_{2j}	$= (.25*3) + (.50*2) + (.25*1) = 2.00$			
	u_{3j}	$= (.50*3) + (.50*2) + (.00*1) = 2.50$			

this project, the subjects' task was specifically to screen the profiles for consideration, not to choose one. In a later task they rank ordered the same profiles and completed the self-explicated utility ratings. Thus the screening derived utilities represent the weights subjects placed on attribute levels during consideration set formation, not during final evaluation and choice. Several researchers have hypothesized that at this earlier consideration set stage subjects would exhibit more non-compensatory behavior, compared to more compensatory behavior at a later evaluation stage (Roberts and Lattin 1991; Wright and Barbour 1977). That is, at an earlier stage in the process, subjects would be more likely to use a conjunctive rule and reject a choice alternative (profile) if any of its attribute levels were below an acceptable level. Whereas, in a later stage those alternatives that have passed screening would be evaluated in a more compensatory manner.

THE STUDY

The data for this research was collected as part of a larger study designed to investigate the consumer consideration set formation process (Klenosky 1990). The study involved a simulated decision-making task in which subjects were asked to select a restaurant, from a pool of available restaurants, for a hypothetical restaurant choice situation. (Though not relevant for the present study, subjects were randomly assigned to one of two situations: (1) choose a restaurant to go to when you're feeling too lazy to cook and (2) choose a restaurant to go to for dinner with your boy/girlfriend and his/her parents).

Subjects

A paid convenience sample of 50 university students were recruited for the study. Subjects were selected based on a screening questionnaire to ensure they had some familiarity and interest in the choice domain involved.

Stimuli Used as Choice Alternatives

The stimuli used in the study consist of descriptions of hypothetical restaurants constructed to simulate condensed restaurant reviews. Based on a literature review and a series of pilot studies, six attributes were selected to describe the restaurant

alternatives (see Table 2 for a summary of the attributes and attribute levels used in the study). As a starting point, the three levels of the four most important attributes (Atmosphere, Food Quality, Service Quality and Price) were fully crossed to create a base set of 3^4 , or 81 profiles. Profiles with unrealistic attribute level combinations were then discarded reducing the available set to 63 profiles. Finally, the levels of two additional attributes (Food Variety and Waiting Time) were randomly assigned to each profile to create 63 restaurant alternatives described on a total of 6 attributes. The orthogonality of the attributes in these profiles was a concern. However, a subsequent analysis indicated that the degree of correlation among the attributes used in the profiles was low, indicating the design was still relatively orthogonal.

Procedure

Each subject participated individually in a session whose average time was 45 minutes. Subjects were first shown a brief description of the choice situation and then began to examine the profiles. The profiles were not in any particular order and were drawn at random by the experimenter. Subjects were allowed to examine as many or as few profiles as they wanted or needed to in order to make their choice. Subjects were instructed to indicate what they wanted to do with each profile by placing those that they wanted to consider for the situation in a pile to their left and those that they wanted to reject from consideration in a pile to their far right. They were also told they could use a middle pile if they liked as a "hold" pile for alternatives they were unsure of. Subjects indicated when they were ready to stop examining profiles and make their choice. They then ranked each of the profiles examined from their most preferred to their least preferred. (Note that the 50 subjects participating in the study examined an average of 6.4 profiles, with a range of 1 to 22. Of the 306 profiles screened, 21% were accepted, 15% put on hold, and 64% rejected).

Once the process of examining profiles ended, subjects completed the self-explicated task by indicating the desirability of each attribute level using the simple three-point scale described earlier. That is, they first indicated, for each attribute, which level was

TABLE 2
Percent Self Explicated Ratings and Percent Screening Decisions by Attribute Level

Attributes and Levels	Self Explicated Ratings			Screening Decisions		
	Best	Accept	Unaccept	Accept	Hold	Reject
<u>Atmosphere</u>						
1 Informal	.12	.35	.53	.22	.13	.66
2 Casual	.77	.23	.00	.23	.17	.60
3 Formal	.11	.54	.35	.16	.16	.69
<u>Service</u>						
1 Poor	.00	.05	.96	.10	.14	.76
2 Good	.29	.71	.00	.22	.21	.58
3 Very Good	.71	.25	.04	.30	.11	.59
<u>Food Quality</u>						
1 Poor	.00	.00	1.00	.07	.07	.86
2 Good	.04	.94	.00	.25	.18	.58
3 Very Good	.96	.04	.00	.31	.21	.48
<u>Food Variety</u>						
1 Limited	.04	.83	.13	.18	.13	.68
2 Broad	.93	.07	.00	.25	.18	.57
<u>Price</u>						
1 Inexpensive	.35	.56	.08	.34	.14	.52
2 Moderate	.61	.38	.01	.23	.19	.58
3 Expensive	.02	.29	.69	.04	.11	.84
<u>Waiting Time</u>						
1 Long	.00	.29	.71	.26	.16	.58
2 Medium	.42	.58	.00	.27	.15	.58
3 None	.58	.33	.08	.11	.15	.74
Means	.35	.38	.27	.21	.15	.64

the best or most preferred, and then rated the remaining levels as either acceptable or unacceptable.

RESULTS

As noted above, the first purpose of this research was to assess the convergence between self-explicated utilities and screening derived utilities. Table 2 presents these results by attribute level; the means across attributes appear at the bottom of the table. There are noticeable differences between the two approaches. In particular, on average the unacceptable level was chosen 27% of the time but 64% of the profiles were rejected. On fourteen of the seventeen attribute levels, respondents rejected the profiles at a higher rate than they rated the attributes as unacceptable. The differences between the two approaches are quite large on some attributes, such as "casual atmosphere" where none of the respondents rated that as unacceptable, but 60% of the time profiles at that level were in fact rejected. Of course, such differences are understandable since our methodology for deriving utilities based on screening behavior

enforces a strict conjunctive rule that if a profile is rejected, all the attribute levels for that profile are considered rejected.

The deviations between the self-explicated and screening derived utilities can also be examined by correlating the two sets of utilities produced by each individual. The mean correlation coefficient across the 50 subjects equalled .40 (after a Fisher Z transformation) with a range from +.90 to -.73. For 46% of the respondents the two sets of utilities were significantly correlated; or conversely, for 54% the two sets were not related using a 1 tail test at $\alpha = .05$. There is one caveat: the observations within an individual's set of utilities are not completely independent. Thus, while these correlation results indicate some lack correspondence between the two utility measures, they are not definitive.

Table 3 summarizes the extent to which subjects violated the conjunctive implications of the self-explicated procedure by crossstabulating the outcome of the screening decisions by the presence of unacceptable attribute levels in the profiles. If any

TABLE 3
 Frequency of Violating Conjunctive Decision Rule and Median Profile Ranking by Screening Decision Outcome and Profile Type

Profile Type	Screening Decision			Total
	Accept	Hold	Reject	
Profiles Containing at Least One Unacceptable Attribute Level	n=26 .89	n=33 .68	n=186 .31	n=245 .42
Profiles Containing No Unacceptable Attribute Levels	n=38 .94	n=14 .80	n=11 .48	n=63 .83
	n=64 .92	n=47 .71	n=197 .32	n=308 .50

TABLE 4
 Parameter Estimates from Three Conjoint Models

Attributes and Levels	Traditional Dummy Variable Model	Self Explicated Utility Model	Screening Derived Utility Model
<u>Atmosphere</u>			
Casual	.00017 *	.00018 *	.00025 *
Formal	.00007	.00011 *	.00012 *
<u>Service</u>			
Good	.00009 *	.00002	.00012 *
Very Good	.00012 *	.00007	.00016 *
<u>Food Quality</u>			
Good	.00017 *	.00018 *	.00018 *
Very Good	.00023 *	.00019 *	.00027 *
<u>Food Variety</u>			
Broad	.00004	-.00003	.00003
<u>Price</u>			
Moderate	-.00001	-.00002	.00003
Expensive	-.00015 *	-.00009	-.00011 *
<u>Waiting Time</u>			
Medium	.00007 *	.00002	.00013 *
None	.00007	-.00004	.00011
Intercept	.55530 *	.56636 *	.57469 *
Summed Utility	---	.00010 *	.00007 *
R ²	.35	.46	.50

* denotes significant parameter, alpha < .05

attribute level in a profile had been rated as unacceptable by the respondent, then the profile was classified as "unacceptable" (see Green, Krieger, and Bansal 1988, Table 4). We might expect that all unacceptable profiles should have been rejected, and in fact of the 245 profiles classified as "unacceptable," over 75% were rejected. On the other hand, however, respondents failed to reject 25% of these supposedly "unacceptable" profiles. Note also that of the 64 profiles that were accepted by the respondents, 40% contained at least one unacceptable attribute level, indicating once again a moderate level of inconsistency.

The median rank orders for the profiles which fell into each screening by self-explicated cell are also presented in table 3. (The ranks were rescaled by respondent such that the most highly ranked profile equalled 1 and the least highly equalled 0.) The rankings monotonically decline from accept to reject decisions and from acceptable to unacceptable attribute levels, as expected. Respondents' rankings were congruent with their screening and self-explicated results. Thus, the screening and self-explicated utilities should be useful in predicting preferences, even though the respondents were not always consistent in following the conjunctive rule.

The second purpose of the research was to assess the effect of including a summed screening derived utility term in a hybrid conjoint regression equation in place of the typical summed self-explicated term. In previous studies the inclusion of the self-explicated term, along with the traditional dummy variables representing the levels on the profile attributes, has improved the predictive ability of the equation (e.g., Green 1984). However, this increase may come at the cost of introducing some bias into the estimation of the regression parameters because the self-explicated term can be redundant with the attribute levels. Thus, the coefficients for the dummy variables will be altered if the self-explicated utility term is included.

Using the rescaled respondents' rankings of the choice alternatives as the dependent variable, three equations were estimated with the CONJOINT macro in SAS which performs monotonic regression (SAS 1985). All equations were estimated at a total group level, $n=308$. As a baseline for comparison, the first equation included only the dummy variables for the profile attribute levels. The estimated parameters appear in Table 4, along with the R^2 of .35. Note that seven of the eleven attribute level parameters are significant.

A second equation included the self-explicated utility term, summed by profile, along with the dummy variables, following the same formulation shown in Moore and Semenik (1988, their equation 3). The R^2 increased to .46 as might be expected, but in this case four of the attribute level parameters which had been significant in the dummy variable equation are now insignificant. Only four parameters are significant when the self-explicated term is included. This is important from a managerial perspective because the meaning of the parameters changes between the two

equations. Considering the self-explicated term alone, without dummies, results in an R^2 of .39.

Finally, a third equation substituted the summed screening derived utility in place of the self-explicated term in the second equation. In this case the R^2 improved to .50, but more importantly the attribute parameters remained as they were in the first dummy variable equation. The same seven which had been significant previously, remain significant in this equation indicating that the screening-derived term is bringing in new information, uncorrelated with the profile dummy variables. An equation with the screening derived term alone, without dummies, produces an R^2 of .36.

DISCUSSION AND CONCLUSIONS

This research has merged aspects of consideration set formation with the modelling of consumer preferences. Previous research has noted the consideration set formation as an essential step before product evaluation (Roberts and Lattin 1991), but many models ignore that step and focus only on the final step of the process: choice. Obviously if a product is not included in the consumer's consideration set, it cannot be chosen. To model choice more realistically, the earlier processes should also be included.

The typical self-explicated utility task asks consumers to declare whether any levels of an attribute are unacceptable. Thus, if a product had that level, it would not be considered for choice. The method described in this paper seeks to obtain the same information from the consumer; however, in this method, attribute utilities are derived by screening profiles for consideration. Our approach entails a less direct task from the consumer's perspective--they do not overtly rate attribute levels. On the other hand, this approach may provide a more direct, behaviorally-based measure of attribute utilities.

Summarizing the research results, we find noticeable inconsistencies between the screening decisions and the self-explicated utilities. For example, over 40% of the profiles respondents accepted for consideration contained at least one "unacceptable" attribute level, while 25% of the profiles with "unacceptable" levels were not rejected from consideration. We also find that, compared to a summed self-explicated utility term, a summed screening-derived utility term is less redundant with the dummy variables in a hybrid conjoint equation.

These results suggests that the utilities generated by the screening task differ from those generated by traditional self-explicated methods. These differences may arise from both our mathematical formulation as well as the respondent's task. First, our formulation calculates the utility of a profile by weighing the desirability scores for an attribute level by the probabilities derived from the screening decisions. This probabilistic formulation of utility may be a more realistic representation of the respondent's behavior, but further research is needed on this point. To improve the comparability of utilities across subjects, future research could require

all respondents to screen the same set of, say 18 factorially designed, profiles. An additional possibility would be to substitute a profile screening task for the self-explicated task now built into the Adaptive Conjoint Analysis (ACA) software program (Johnson 1987). Green, Krieger, and Agarwal (1991) have recently questioned several aspects of ACA, and a screening task may help resolve some of those issues.

Second, in addition to differences due to our mathematical formulation, differences between the screening derived and self-explicated utilities may also result from the task the respondent is asked to perform. The screening task captures the consideration set formation stage of the choice process. Thus, the weights placed on attribute levels during consideration set formation may well differ from those associated with the final choice stage. Future research could explore the factors which increase or decrease the differences between the weights used in the two stages, including factors related to product class, respondents, purchase situation, and task instructions.

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New Perspectives for Self-Research

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The concept of self has fascinated social scientists for centuries. Some of social sciences most important philosophers, psychologists and social psychologists, clinicians, anthropologists, sociologists and symbolic interactionists have placed self squarely in the center of their theories of human behavior. Although self-research in marketing is more recent, interest in self has been equally pervasive, beginning with "motivation research" in the 1950's, followed by self-concept research in the 1960's and 1970's (cf. Sirgy 1982), and continuing today with a more anthropological and sociological perspective emphasizing the role of symbolic consumer behavior in the maintenance and construction of the self (Belk 1988; Mehta and Belk 1991; Schouten 1991). This perspective has been most useful, revealing a complex and powerful self that is implicated in all aspects of consumer's lives. However, given the richness and complexity of the self-construct, multiple perspectives and visions of self are needed to address the multitude of research issues that have intrigued self-researchers for decades. Only by combining and integrating frameworks and perspectives can one more fully understand self as it relates to consumer behavior.

The purpose of this special session is to bring together a group of researchers with distinct and unique "visions" of self that may serve as a catalyst for future self-research. The session will familiarize the audience with alternative theoretical perspectives that can be used to investigate the self. New research issues and questions not previously addressed in the consumer behavior literature are identified and include understanding the core or authentic self, the relationship between self, affect and emotions, motivation, and decision-making, the representation of self in memory, and finally how self is constructed and measured. Most importantly, however, is the session's objective is to stimulate creative thinking and research on self from these alternative points of view.

Conceptualizing the Self from a Cognitive Structure Perspective

The session begins with Beth Walker's presentation of her theoretical conceptualization of self from a cognitive structure perspective.

Much of the recent work on self describes how symbolic consumer behaviors are used to maintain and construct the self, without clearly conceptualizing or defining the concept. In this presentation, the author addresses the issue "what is self?" by discussing how self may be represented in memory. The proposed framework, which integrates the self, motivation, and situation literatures, details how self and self/product relationships may be stored or represented in memory.

Specifically, self is conceptualized as a multifaceted cognitive-affective structure which contains, among other beliefs, consumer's representations of motives, goals, hopes and desires

which are hierarchically organized at different levels of abstraction. Products and services may be linked to important self-goals through means-end structures. Once activated, self and self/product structures have motivational properties that direct affective and cognitive processes and overt behavior. In contrast to the early self-concept research (Sirgy 1982), this framework emphasizes the dynamic, flexible and goal-directed aspects of the self. Implications for understanding consumer's affect and emotion, information processing, and felt involvement and ideas for future research are then discussed.

This is Really Me! The Consumer's Search for the Authentic Self

Linda Price presents her work with Walker which focuses on consumer's sense of their core or authentic self.

The assumption that there is a "real self" that is more than a composite product of our performances, is among our most cherished beliefs. As participants in a culture that privileges the authentic self, but demands rehearsed and planned role performances, we value experiences, interactions, and possessions that lead us to exclaim "this is really me!" While answering the philosophical question of whether there is a "real" self is difficult, the more tractable goal is understanding the authentic self as conceived by the person, and the relationship between this self, experience and possessions in a social world.

In this presentation, Price presents the results of a phenomenologically based investigation of the meaning of "really me" to consumers from their own, everyday lived experiences. While one group of subjects provided descriptions of their most recent "really me" purchases and possessions, a second group provided descriptions of a "really me", "impulse" and "high involvement" purchases. For both groups, minimally structured interviews combined with more structured scales of affect, experience characteristics, and memory of experience were used to collect the data.

The results illustrate that the interrelationships between these different "really me" experiences and purchase experiences form an important nexus of meanings through which a personal sense of self emerges. The results also identify structural relations between meanings of authenticity and between types of purchase, possession, and consumption experiences. Interesting relationship between the incidence of affective content of "really me" experiences and measures of self-complexity are also discussed. Finally, suggestions are made for future investigations of the authentic self.

Narrative Constructions of the Self

Using narrative theory as their theoretical foundation, John Howard and Jerry Olson present their view of how self is represented and actively

constructed as consumers relate continually evolving stores that represent their life experiences.

Narrative is the basic mode of representing experience that people use to construct meaningful interpretations of the events in their lives (Bruner 1986). The authors conceptualize self as a complex narrative, composed of many interrelated stories which evolves as the narratives change over time. Narrative, then, is used to create and represent self-meaning. Howard and Olson elaborate and establish this position by drawing on several relevant literatures concerning narrative theory and its many applications.

First, they describe the narrative mode of thought and distinguish it from other forms of representation and communication such as logical argument and description, and illustrate how self is constructed by creating narrative representations of events in one's life. People who possess a well-developed self narrative can easily travel backward and forward in time, telling stories about who and what they are, were, and hope to become. Next, the advantages of a narrative perspective for understanding self are discussed, and implications of a narrative construction of self for consumer research illuminated. Since everyone continually constructs self narratives that reflect the self, narratives can also be used to measure aspects of self. The authors propose that such self-stories could be more revealing of self than more common methods such as self-ratings of traits in structured questionnaires.

The Self, the Whole Self, and Nothing but the Self: Toward New Theory in Consumer Behavior

John Schouten concludes the session by presenting his vision of self as the unifying construct which may serve as the foundation for integrating theory and research on emotion and cognition.

One of the earliest conceptualizations of the self comes from Plato who defined it as the experiential center of all human thought, feeling and action (Bostock 1986). In other words, the individual self not only performs the functions of cognition, affect, and conation, it also interprets the results of those activities in a holistic fashion, thus giving meaning to the world and to its own place therein (Allport 1943). Furthermore, the self employs the same functions reflexively to understand the inner world. The resulting self-concept has a strong cognitive component consisting of multiple schemas, as well as an affective one which arises from evaluation of self-schemas to the expectations of self and others.

After presenting his vision of self as an integrating framework, Schouten concludes his presentation by highlighting areas for future research, and stressing the need for an integrative approach to further research and theory development.

In sum, this special session introduces several alternative visions of self to the consumer behavior discipline, with concrete suggestions for future research with the hope of stimulating creative thinking and research on the emerging topic of self.

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Consumer and Employee Roles in Service Encounters

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ABSTRACT

The consumption of services often involves the personal interaction of consumers and service employees. Past services research has focused almost exclusively on the behavior of service employees and excluded the consumer's role in this dual social process. Qualitative in-depth interviews were used to conduct an experiential investigation of how consumers want to participate in their service experiences and how satisfaction develops as a function of their participation expectations. Emergent consumer role themes of "autonomy - mutuality - dependence" and employee role themes of "indifference - cooperation - dominance" that shape the consumption experience are identified and discussed in relation to consumer satisfaction in service encounters.

The personal interaction between consumers and service providers is the heart of most service experiences. Whether the interaction consists of a flight attendant's brief standardized greeting to boarding passengers or entails the personalized attention of a physician during a medical exam, the moment the exchange commences the consumer is simultaneously involved in the production and consumption of the service and becomes an integral part of the service process. The consumer's experience within the service process is an important determinant of his/her satisfaction with the service and facilitates his/her assessment of service quality (Bitner 1990; Bitner, Booms, and Tetreault 1990; Parasuraman, Zeithaml, and Berry 1985, 1988; Surprenant and Solomon 1987). In "pure" services, such as health care, financial planning, and auto repair, where a physical product is not exchanged and the service experience is difficult to evaluate, the interaction epitomizes the service from the consumer's perspective. But even when the focus of the exchange is a tangible object such as clothing purchased in a department store, the interaction can leave an indelible impression on the consumer.

The personal interaction between consumers and service providers has been termed the "service encounter" in the services marketing literature (Czepiel et al. 1985; Shostack 1985; Solomon et al. 1985; Surprenant and Solomon 1987) and has become the focus of attention in recent service quality research (Bitner 1990; Bitner et al. 1990; Surprenant and Solomon 1987). The research on service encounters and the service quality research of Parasuraman et al. (1985, 1988) suggests a number of factors that may influence consumers' satisfaction with services. These factors pertain to both the service outcome and the manner in which employees deliver service to consumers. The factors relating to the interaction between consumers and employees address how consumers expect employees to behave while providing service. However, prior research has not considered *how consumers expect to participate in the*

service process and define their service experience.

For example, when some consumers shop for clothing they may want to move freely through the store on their own and avoid interacting with salespeople, while other consumers may welcome a salesperson's advance and want him/her to take an active part in helping them select the right merchandise. Service quality research has focused almost exclusively on the employee's part in the service setting. Thus, the consumer's service experience, including the service encounter, has not truly been viewed as an interactive and dynamic social process. The purpose of this article is to understand how consumers want to participate in their service experiences and how service satisfaction develops through the service encounter as a function of consumer participation expectations.

BACKGROUND

The services marketing literature has identified three significant characteristics of services - intangibility, inseparability, and heterogeneity - that reveal the human dimension of service delivery and consumption (e.g., Parasuraman et al. 1985; Zeithaml, Parasuraman, and Berry 1985). These characteristics may make it difficult for consumers to evaluate the service offering in the absence of more concrete product attributes (Zeithaml 1981). As evaluation becomes more subjective, consumers are likely to draw more heavily on the total consumption experience, i.e., not only what service is delivered, but also how it is delivered, when assessing satisfaction and service quality. The service employee's perceived performance, including his/her projected attitude and behavior while interacting with consumers, may affect their evaluation process.

Service Quality

Parasuraman et al. (1985, 1988) propose that consumers evaluate a firm's overall service quality on five underlying dimensions: tangibles, reliability, responsiveness, assurance, and empathy. They developed a multiple-item scale called SERVQUAL that measures perceived service quality by comparing consumers' perceptions of a service firm's performance with their expectations of how firms in that industry should perform along the five service dimensions. This research affirms the importance of the personal interaction between consumers and service providers in realizing service satisfaction. Three of the five dimensions of service quality - responsiveness, assurance, and empathy - relate directly to the interactive nature of services. Furthermore, the reliability of a service frequently depends on employee performance. Service employee performance that falls short of consumer expectations leads to consumer dissatisfaction and poor service quality.

Parasuraman et al. (1988, p. 23) define the three interpersonal service quality dimensions as follows:

Responsiveness - willingness to help customers and provide prompt service

Assurance - knowledge and courtesy of employees and their ability to inspire trust and confidence

Empathy - caring, individualized attention the firm provides its customers.

Taken together they suggest that service providers must be active participants in the consumer's service experience. However, consumers' expectations about the amount and type of interaction they will have with employees may differ depending on how they want to act in the service. While some service settings may require that employees stay in close contact with consumers throughout the delivery process, at other times consumers may only need to know that an employee is available if needed, i.e., good service can be provided from a distance. Although responsiveness, assurance, and empathy are important factors when consumers assess service quality, the meanings of these dimensions may differ among consumers depending on the way in which they want to participate in the service process.

The Service Encounter

In recent research that focuses on the role of the service encounter in service satisfaction, Bitner et al. (1990) asked respondents to describe specific events and employee behaviors that led them to distinguish between satisfactory and unsatisfactory experiences. The study uncovered three major categories of employee behaviors: employee response to service delivery failures; employee response to customer needs and requests; and unprompted and unsolicited employee actions. Although this study is useful in identifying employee behaviors, it does not address how consumers participate in the service setting, thus leaving an incomplete picture of the consumer's service experience. The interpersonal nature of services suggests that the way in which consumers themselves take part in a service may also influence their satisfaction.

Role Theory

The meaning of service satisfaction can be developed further by understanding the way in which consumers want to present themselves in service encounters. Solomon et al.'s (1985) work on the service encounter proposes a role-theoretic framework for understanding consumer participation in the service environment. They argue that the service encounter can be understood by considering the specific roles consumers and service employees play during their interaction. In addition, they suggest that the roles that are enacted will affect consumers' service satisfaction. However, Solomon et al. stop short of identifying the different roles that consumers and employees may play in the service environment.

Role theory is based on a theatrical metaphor. Consumers and service employees participate within the service encounter like actors on stage reading from

a common "service script" that represents each party's expectations of their own behavior as well as the anticipated complementary behavior of each other (Smith and Houston 1983). Their roles encompass a set of learned behaviors appropriate to the particular service setting and depend on situational cues such as each other's attitudes and behaviors. Consumers and service providers must understand each other's position to engage in a satisfactory and stable relationship. Employees must recognize and respond to the different needs of consumers and the way consumers expect to participate in the service. The failure of either consumers and/or employees to adhere to their prescribed roles and scripts may hinder service delivery and result in dissatisfaction with the service encounter. At present the application of role theory to the service encounter remains at a conceptual level, leaving a void in understanding how consumers participate in their service experiences.

In sum, Parasuraman et al.'s SERVQUAL model highlights the interpersonal nature of services in three of its five dimensions. Past service encounter research explicitly recognizes that the interaction between consumers and service employees is an important determinant of consumer satisfaction, but extant research focuses exclusively on employee actions and behaviors, excluding the consumer's role in the interaction. Solomon et al. have recognized the duality of the service encounter by suggesting a role theory perspective, but their work remains at a conceptual level since they have not cashed it out. So, the purpose of this research is to explore the roles consumers enact in service encounters and how their desired actions and behaviors influence service satisfaction.

METHOD

Qualitative in-depth interviews were used to study consumer roles in different service settings. The in-depth interview method used in this study combined the critical incident technique (Flanagan 1954; Bitner et al. 1990) with an existential-phenomenological interview approach (Thompson, Locander, and Pollio 1989, 1990). The motivation for this approach was to go beyond the straightforward critical incidents and gain a more thorough understanding of the consumer service experiences. The critical incident technique reveals what events occurred, while existential-phenomenology provides a means of interpreting and understanding the experience.

The present research was based on the verbatim transcripts of twenty-eight qualitative in-depth interviews conducted with undergraduate students at the University of Florida who were enrolled in an introductory marketing course. Each interview was conducted by the principal researcher and lasted between thirty and forty-five minutes. The interviews were tape recorded and later transcribed verbatim by the researcher.

Each interview began with the question, "Can you think of a time when you had a particularly satisfying or dissatisfying experience with a service business?" The purpose of the initial question was to focus the interview on descriptions of specific

consumer service experiences from which critical incidents could be discerned and thematic descriptions of consumption experiences would emerge. Additional questions arose from the ensuing dialogue and were largely driven by the informant's responses to ensure a first-person description (see Thompson et al. 1989).

During the interview, informants were free to describe satisfying and/or dissatisfying service experiences with any service business. Informants often talked about more than one experience. The majority of their consumption experiences occurred in restaurants and retail stores. Consistent with the principles of emergent design, the research evolved into a study largely confined to these two settings. The focus on these two service environments is not surprising given the informants' demographics and the university town setting where the interviews were conducted. However, restaurants and retail stores form a substantial portion of the American service economy. The format of the interview was designed to be very flexible to allow the informants to fully discuss their personal service experiences, including their own attitudes and behaviors.

The verbatim interview transcripts were the data from which thematic descriptions of consumer service experiences unfolded through an interpretive process (Denzin 1989; Thompson et al. 1989, 1990). Thematic description required careful readings of each transcript to understand individual informant's service experiences from a first-person perspective. The individual transcript analysis revealed that informants view their service experiences as a dynamic interactive process comprised of their own participatory views and behaviors as well as the service employees' attitudes and behaviors. After the transcripts were analyzed individually, the separate interviews were related to each other and common patterns or themes were identified emerging from informants' discussions of their service experiences. The interpretation sought the discovery of convergent themes across divergent consumption experiences. An emic approach to interpretation was followed that attempted to describe the recorded experiences from within the informant by using his/her own terms rather than the researcher's (Denzin 1989; Thompson et al. 1989, 1990).

An Experiential Portrayal of Service Encounters

The Figure presents the consumer's view of the service encounter as a lived meaningful experience that encompasses much more than a discrete monetary transaction. The service encounter is symbolized by the major interpretive themes that emerged from the interviews: 1) "autonomy - mutuality - dependence" portraying the roles consumers play while receiving service and 2) "indifference - cooperation - dominance" describing the roles that consumers see employees enacting while giving service. These themes are interrelated and emanate from consumers' descriptions of the meaning of satisfaction in service encounters. The emergent themes will be described individually and then synthesized in relation to consumer satisfaction. To provide a clearer

understanding of the consumer's own consumption experience, illustrative excerpts from the interviews will be offered within the thematic descriptions.

The Figure depicts the service encounter as a social process that encompasses the exchange between consumers and employees in the service environment. At the core of the service encounter resides consumer satisfaction arising from the fusion of giving and receiving service during the personal interaction between consumers and service employees. The emergent roles identified in the transcripts give credence to Solomon et al.'s use of role theory to understand the service encounter and consumer satisfaction. Informants often discussed the roles they expected service employees to play while giving service in relation to their own roles while receiving service. Their first person description of themselves in their service encounters gives a more thorough understanding of consumers' service experiences. The service encounter is a dual undertaking, not just driven by consumers' expectations about employee behaviors. Consumers are active service participants, with their own expectations about how they want to experience a service.

The congruence between the service employee's role and the consumer's serves as a "measure" of good service and a source of consumer satisfaction; as such this congruence notion is quite compatible with Parasuraman et al.'s service quality model, which measures the gap between consumers' expectations and perceptions of service performance. This research extends Parasuraman et al.'s model by identifying consumers' expectations about their own roles and their accompanying expectations about employees. The interpersonal dimensions of service quality are not products of the service firm, but rather are dynamic processes that occur within the service encounter. Consumers' expectations about employee behaviors are framed by how they want to participate in the service.

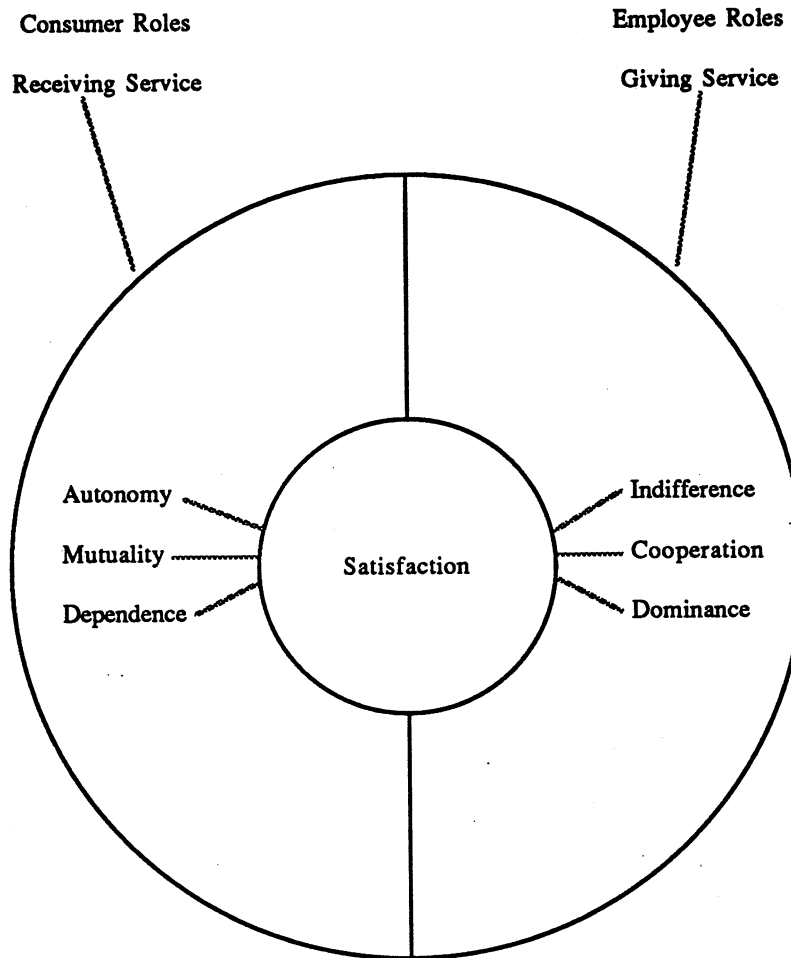
The Consumer Role of Dependence

One experiential role for some consumers is being dependent while receiving service. The theme of dependence arose during informants' discussions of consuming a service in which they have limited knowledge or expertise. The dependent consumer feels vulnerable and uncomfortable in the service setting and needs the service employee to provide guidance and assistance during consumption as illustrated in the following interview excerpts:

"I felt more secure because I'm getting a service done that I have no idea about. He made me feel at ease like he was in control, like he knew what was going on. When you don't know anything about something you want to feel that way. You know like a doctor should make you feel that way. It's the same kind of thing." (wf, early 20s)

"When you buy a tennis racket there's a lot of stuff you want to know. At first I was nervous to ask this guy. He's a pro. What if I ask him a

FIGURE
An Experiential Portrayal of Service Encounters



stupid question. Will he think I'm an idiot or something. I didn't want to ask him any questions. Then he started talking to me, explaining about the tension of the racket, stuff like that. He made me feel more comfortable right away. It makes you feel more comfortable to ask questions." (wm, early 20s)

The dependent consumer wants the employee to take an active role and participate in his/her service experience. The dependent consumer particularly values the three dimensions of service quality - responsiveness, assurance, and empathy - that are strongly affiliated with the service employee's role in the service delivery process. In the preceding passages, service satisfaction is judged by the service employee's ability to respond to the needs of the consumer and facilitate the consumption experience. The employee is expected to not only help the consumer by providing knowledge about the service, but also must be reassuring and empathetic to make him/her more comfortable and at ease in the setting.

The Consumer Role of Autonomy

In contrast to the dependent consumer stands the autonomous consumer. The theme of autonomy was revealed most frequently in informants' descriptions of shopping in retail stores, where they indicated a desire to be on their own while shopping for clothing. Self service is an essential and desired part of their consumption experience.

The following interview excerpts illustrate autonomy:

"When I'm shopping I like to look on my own and not feel like there's someone looking over my shoulder. Some people like attention and help, but I personally don't. I like to look on my own. I like to look for bargains or sale items. I can't go in there and buy whatever they show me." (wf, early 20s)

"I don't like to be crowded. If I'm going to a clothing store where I know what kind of clothes I like, I don't like someone around me who's like, oh this will look good on you,

because I know what's going to look good on me and what I like." (wf, early 20s)

The autonomous consumer wants independence—to be free to make decisions and choices on his/her own. The consumer knows what he/she likes to buy and shopping becomes a personalized experience where the consumer is in control, freely moving throughout the store, devoid of any outside interference. An autonomous consumer expects employees to be responsive to his/her desire for independence by backing off and giving the consumer space to shop, although the employee should stay on the periphery and be ready to serve if needed. The autonomous consumer may need employees to perform procedural tasks, such as opening a fitting room or ringing up a sale.

This view of responsiveness differs sharply from Parasuraman et al. (1988), who describe responsiveness as the employee's willingness to help consumers and provide prompt service, suggesting a proactive and highly visible position in the service setting.

The Consumer Role of Mutuality - The Employee Role of Cooperation

The emergent themes of mutuality and cooperation are discussed together to emphasize their close interrelationship. It is difficult to tease apart differences in the meaning of mutuality and cooperation since the two themes flow together within the interview dialogue. Mutuality represents the consumer's role in the service encounter, while cooperation describes the service employee's role. The themes of mutuality and cooperation emerged for the most part while informants were describing satisfying service experiences. Consumers received their desired service with the mutual cooperation of the service employee. The service encounter takes on an air of synergy and coordination as exhibited in the following two passages:

"It's satisfying because of the interaction by the waiters. They make the fondue at the table. They explain all the different ingredients that they are putting in there. It makes you feel important since they're taking the time to talk to you. It's the interaction rather than at a place where they just come and take your order and then come back with your food." (wf, mid 20s)

"I went to a car stereo place. The person there like totally helped me. I could tell he wasn't just trying to get me to buy the most expensive one. He was looking for what I wanted. He didn't immediately start showing me top of the line things. He said, what was it about your old car stereo that you liked? What features were the most important to you? That made me feel comfortable that he was not just trying to make a buck. He was really looking to get what I wanted and needed." (wf, early 20s)

These passages reveal a sense of care and concern for the consumer by the service employee. The consumer is given a sense of status and importance that results from the service employee's treatment. The relationship moves beyond the mere interaction of consumer and service employee to a mutual process of human cooperation and coordination. The roles of mutuality and cooperation may come closest to representing the ideal of service quality. Consumers and service employees understand their roles and work together in giving and receiving service. Informants' satisfying experience arose from interacting with employees who were responsive, assuring, and empathetic while providing service (Parasuraman et al. 1985, 1988).

The Employee Role of Indifference

The theme of indifference describes service employees who are disinterested in giving service. The term service employee is a misnomer since the person is on the job, but is barely doing his/her job of serving consumers. Consumers often need these employees to provide assistance, information, or solutions to problems as illustrated by the following interview excerpt in which the informant had received an incorrect airline ticket through the mail and was attempting to resolve the problem over the telephone:

"When I spoke with the travel agent she wasn't nice at first. At first she seemed kind of mad and she was kind of silent on the phone. She was doing something with her computer and she didn't really say anything. I didn't think the problem would be resolved. She never said anything until I asked her. She wasn't very accommodating since it was more like I was asking the questions. I was trying to figure things out more than she was. She just said, oh and then she just got silent. I didn't know what she was doing or anything like that. If she had just been a little bit more reassuring. If she had talked a little bit more." (wf, early 20s)

Instead of facilitating the service delivery process, indifferent employees complicate the situation. The employee is insensitive to the needs of the consumer and conducts his/her business in a very impersonal manner, disregarding the human element of the service encounter.

The following passages further illustrate employee indifference:

"I know I'm pretty much dissatisfied with a lot of places because a lot of the people are just standing around talking and they're not doing their job. When I walk into a store I expect to be acknowledged. I expect them to at least say hi, how are you doing? Do you need any help or anything? Then I can let them know if I need any help or not. If I'm not acknowledged that's a turnoff. Most of the time I'll just walk out because they should be there to help me. They should be happy that I'm there." (wf, early 20s)

In this situation indifference is evidenced by a lack of attention and courtesy to the consumer before she has experienced the tangible aspects of the environment. The indifferent employee can affect a consumer's service experience regardless of the consumer role assumed. A dependent consumer will expect help throughout his/her service experience, while an autonomous consumer who prefers to look for clothing on his/her own will be dissatisfied if he/she can not make a purchase because the cash register has been left unattended.

The Employee Role of Dominance

The emergent theme of dominance is used to describe the over zealous service employee who gives "too much" service, to the point of creating a dissatisfying service experience. The service employee has crossed the consumer's perceived threshold of service attention and responsiveness as expressed by two informants:

"Always going by, but not necessarily asking you if you need anything, but going by so if you need to ask them for something, you can get it. It's also overkill if they're asking you too often. There's a fine line there when they are helping too much or not helping enough. Somewhere between those two they need to be." (wm, early 20s)

"I don't like it when people are over polite to me, but at the same time I want them to respect me for going to their service. Just be conscientious, that customers are people and that they're serving people and that's their job. They should be respectful and nice, but they don't have to be overly going out of their way. Because that can also make me feel uncomfortable." (wf, early 20s)

Both of these experiences occurred in restaurants, the predominant settings for the emergence of employee dominance. The waiter/waitress can be termed the "pesty" employee who will not go away and would like to take a seat and join the consumer for dinner rather than giving service. The service employee no longer gives good service, but hinders service delivery through inappropriate behaviors that may not be apparent to him/her. The actions of the service employee could be characterized as "consuming the consumer" in his/her endeavor to provide what is thought to be good service and dominate the service setting.

"I think when they check back with you too often and they have to be all flowery about everything, I think that's a turnoff. We're there to eat and I'm not there to socialize with my waiter. I really felt like he was interrupting us all the time. We'd be in a conversation and he'd come up or we'd be taking a bite out of our sandwich and he'd come on up. He was always there, running back, checking on us. Kind of

like he was hovering, watching us." (wf, mid 20s)

This last passage reveals that the service employee may believe that consumers will equate increased attention with good service and make additional purchases in a store or leave a larger tip. Employee dominance may result from pressure from management to increase sales, especially in a commission based sales job, and it also raises the question of how adequately the employee has been trained in providing service quality. Perhaps the employee was told no more than to be friendly or check often on your customers' tables, leaving it to the employee's discretion to determine the meaning of "friendly" and "often".

DISCUSSION

The emergent themes of autonomy - mutuality - dependence and indifference - cooperation - dominance provide an interpretive first-person understanding and description of the roles assumed by consumers and employees in the service encounter. The service encounter is a dynamic process that for the consumer is much more than a static exchange of money for a particular service. Interpersonal roles are at play that influence consumer satisfaction. The compatibility between consumers and service employees' interactive modes is a strong precursor to judgments of satisfaction. None of the twenty-eight informants described their service experiences without at least some mention of the service employee, reaffirming the notion that the service employee is an integral part of the service delivery process (e.g., Bitner et al. 1990; Parasuraman et al. 1985, 1988).

Limitations and Future Research Needs

The main limitation of the study is that most of the informants' service experiences occurred in restaurants and retail stores. Although these two settings are prominent service industries, further research is needed to determine if the emergent role themes identified in this research are found across different service settings. The amount of employee involvement required to provide the service may affect the roles consumers' assume and their accompanying expectations of employees' roles. The restaurants and retail stores discussed by informants are settings where a tangible product is exchanged and interaction with employees occurs on an intermittent basis. Future research should examine service settings where the focus of the service is more intangible and employee interaction is a more significant part of the service experience.

While this research identifies the roles consumers and employees assume in restaurants and retail stores, further research is needed to develop a model of how roles develop contingent on situational and individual factors. Consumer knowledge is one factor that emerged from informants' descriptions of their service experiences that influences consumer roles and their expectations of employees' roles. Research currently being conducted by the author indicates that store loyalty and goals while shopping

(i.e., looking for a specific item, browsing, shopping for fun) may also affect consumers and employees' roles.

CONCLUSION

This research offers a finer grained understanding of the interactive roles that consumers and employees perform while in the service environment and reveals that consumer satisfaction develops not only through the expectations consumers have about employees, but also through the expectations that they have for themselves. Past research on the service encounter has focused almost exclusively on employee behaviors during the service delivery process. The emergent role themes identified in this research give insight into an overlooked aspect of service quality research, *the way consumers want to participate in their service experiences*. In addition, the emergent roles form a basis for building role theory into the understanding of consumer service satisfaction. Consumers see themselves as active participants in their service experiences and view the service encounter as a dual process. Consumer roles are lived out during the service encounter and service satisfaction develops during the interaction between consumers and employees.

This research extends the service quality research of Parasuraman et al. by indicating that the interpersonal dimensions of service quality are not outcomes of the service firm, but instead arise during the interaction between consumers and service employees. Consumers have expectations about their own roles, and thus service firms can not just tell employees to be responsive, assuring, and empathetic. Employees must live out these dimensions during the service encounter, in conjunction with the roles consumers expect to play.

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Organizational Characteristics and Employee Excuse Making: Passing the Buck for Failed Service Encounters

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ABSTRACT

When a service failure occurs customers will frequently look to front-line employees to seek redress or explanations. The manner in which these employees respond could have a significant impact on the customer's satisfaction and future patronage behavior. This paper looks at the response of employees to customer's expressions of dissatisfaction in the context of excuse theory. Then, organizational characteristics are relied upon to suggest when conditions for one particular type of excuse behavior, deflection, is most likely to occur.

INTRODUCTION

Managing employees' reactions to customer's complaints is especially important in the services context where there may be not only a large number of product failures but where it becomes increasingly difficult to arrive at attributions for these failures (Adam, Hershauer and Ruch 1981). Since the production of most services entails some interaction between the service provider and the customer, there is increased difficulty in managing the quality of the outcome (Ziethaml, Parasurman and Berry 1985). Furthermore, people engaged in many services work in environments where many factors contribute to the service outcome. Since there are many ways to generate the service output, and there is a propensity for people to make mistakes, it is not unreasonable to expect a large number of errors in the production of services. When a service fails or an unsatisfying experience occurs, customers frequently complain to frontline employees. The manner in which the employee handles resulting customer's concerns could have a significant impact on customer impressions of the service and concomitantly, the firm itself (Booms and Nyquist 1981; Gronroos 1982; Schneider and Bowen 1985).

The employee may react by "passing the buck" back to the customer, other members of the firm, or even to outside forces. In this paper we (1) introduce excuse theory, (2) analyze organizational characteristics which are conducive to employee excuse making, and (3) volunteer propositions regarding organizational variables that are likely to forewarn the occurrence of employee excuse making.

CUSTOMER COMPLAINTS AND EXCUSE MAKING

When a customer voices a complaint to an employee, the employee can respond in at least one of three ways. First, the employee may volunteer to make restitution or correct the error. This is more likely to occur if a correctable error can be identified, such as undercooked meat in a restaurant. Second, the employee may ignore the complaint, by either

refusing to obtain complete information, denying that any problem exists or by negating the customer's right to restitution (e.g., an auto mechanic who tells a customer that nothing is wrong with the squeaky car). Third, the employee may provide an excuse in an attempt to explain or justify their behavior. Although marketers have extensively studied the first two options (e.g., Singh 1988; 1990), they have devoted much less attention to employee excuse-making.

Recently, however, the psychology literature has shown an interest in the topic of excuse making (Kernis and Grannemann 1990; Shaver 1975; Shaver and Drown 1986; Snyder 1985; Snyder, Higgins and Stucky 1983; Snyder and Higgins 1988; Higgins and Snyder 1991; Teneen and Affleck 1990). The most comprehensive excuse theory has been presented by Snyder et al. (1983). Revised recently (Higgins and Snyder 1991), they define excuse making as "the motivated process of (a) diminishing the perceived negativity of esteem threatening outcomes and (b) shifting the causal attribution for negative outcomes from sources more central to the person's sense of self to sources that are relatively less central" (p. 85). Their writings show that people have an entire repertoire of excuse-making strategies that they may invoke when acts or outcomes reflect poorly on them. In this paper we examine one prevalent type of excuse--the tendency to avoid blame by denying one's own responsibility. In its simplest form, this type of excuse may merely entail a "I did not do it". However, this excuse strategy can be greatly enhanced by pointing the finger at another possible culprit as the cause of the problem, that is, by shifting responsibility toward some other potential cause. We have termed this phenomenon "deflection," more commonly known as "passing the buck". We define deflection as the motivated process of shifting responsibility for a bad act or outcome away from oneself toward another source. This is a major theme of excuse theory and is also predominant in Snyder, Stephan's, Rosenfeld's (1978) theory of attributional egotism as well as Shaver's (1975) theory of defensive attribution. These works indicate that when people are faced with what others would consider a negative appraisal of their character or abilities, they will attribute the failure not to their own shortcomings--as would objective observers--but to factors beyond themselves. In this paper, we examine deflection in the service encounter.

The basic motivational process in excuse making is one of seeking distance from negative acts or outcomes. Higgins and Snyder (1991) describe two appraisals which are made whenever one is confronted with negative information that is discrepant from their current view of themselves: (1) a linkage-to-act appraisal representing the degree to which the individual perceives him or herself to be linked (from

no linkage to total linkage) to a particular act or outcome and (2) a valence-of-act appraisal representing the individual's qualitative assessment of the positiveness of the act or outcome (from positive to negative). Excuse making motives are stimulated whenever an individual perceives him or herself to be linked to an act or outcome that is perceived negatively. Of the multitude of excuses possible, all of them serve the function of either reducing the perceived negativity of the event or reducing the individual's perceived linkage to the act. Deflection serves this latter function. Individuals who attempt to "pass the buck" are seeking to minimize the extent to which they are perceived as linked to the negative event. Employees can seek to divert responsibility to a number of possible sources including the customer, one's supervisor, company policies or even unavoidable external circumstances.

Excuses provide a useful role in our society (Higgins and Snyder 1991). If honored (accepted) by the customer, they have the ability to shore up a fractured situation. Excuses can prevent conflicts from arising by verbally bridging the gap between promise and performance, between action and expectation (Scott and Lyman 1968) and thus, they can mitigate consumer displeasure over a service encounter that does not meet expectations. If the excuse is honored, we may say that it was efficacious and that equilibrium was restored: An honored excuse will restore the status quo ante. To the extent that an excuse is honored, ramifications exist for post-purchase attitudes, future complaining behavior and repatronage activities. For example, Bitner (1990) has shown that when an employee places the blame on something or someone other than him or herself or the firm, that excuse is likely to lead the customer to believe that the firm had less control over the failure than when the employee either implicates himself or the firm. Other investigators (Folkes 1984a, 1984b; Folkes, Koletsky and Graham 1988; Krishnan and Valle 1979) confirm that the type of excuse or explanation offered will affect customer perceptions of and reactions to the situation.

Although sometimes useful, deflection can also be harmful to the organization. What sometimes arises is a massive game of finger pointing in which no one takes responsibility for a poor service outcome. "Passing the buck" may be detrimental to the organization for at least three reasons: (1) customers may become irritated by a system that does not take responsibility for itself, (2) although individual employees may succeed in deflecting responsibility from themselves, responsibility may simply be diverted to another part of the organization, resulting in no mitigation of organizational responsibility in the eyes of the consumer, and (3) organizations or individual employees who are involved in buck passing may fail to capitalize on a valuable source of consumer information. Systematic problems may go unnoticed, problems go unsolved, and customers go unserved. Customers should be encouraged to complain so that problems can be addressed and corrective action taken (Sellers 1989).

It is the major contention of our paper that rather than allowing employees to haphazardly (inconsistently) handle complaints in their own manner, they should be trained to handle complaints in a systematic manner; one detailed, disseminated and controlled by the firm. As a result, management should be cognizant of the excuse making activities of their employees and of the organizational variables which are most conducive to such behavior. By effectively managing their employee's excuse behavior, firms are more likely to influence the outcome of the complaint process. The ultimate objective of managing employee excuse making activity is not for the firm to deny responsibility for the service failure or for the firm to avoid correcting the mistake but, rather to handle the customer's complaint in such a manner as to reduce customers' initial dissatisfaction and reestablish confidence in their perceptions of quality. These, in turn, should have positive word-of-mouth communications and repatronage behavior ramifications.

ORGANIZATIONAL FACTORS SHAPING EMPLOYEE DEFLECTION BEHAVIOR

Excuses are not necessarily false. They do, however, involve an interpretation of the events that led to a specific outcome. When there are few objective yardsticks regarding the "truth" of varying explanations of events and several alternative explanations may equally fit, then it is in this gray area that excuses flourish (Mehlman and Snyder 1985). Service organizations, to a varying degree, present conditions that are in this gray area. That is, some service firms have characteristics which provide ample opportunities for employee deflection.

Front line employees should be able to deflect to the extent that their own contribution to the service failure is obscure. Obscurity can occur when there is more than one possible cause for a bad outcome and to the extent to which the cause of the bad outcome stemmed from ambiguous criteria or standards. The discounting principle (Kelley 1971) states that when there is more than one plausible cause for an outcome, the attribution to any one of those causes will be weaker than if one of those causes stands alone. Organizations are often structured such that there are potentially more than one cause for service failures. This makes organizations structurally evasive when it comes to responsibility taking (Snyder et al. 1983; Ogilvey 1977). Responsibility in organizations becomes elusive to the degree which (1) more than one factor (people or variables) was involved in causing the act or outcome, (2) any factor could have plausibly contributed to causing the negative event, and (3) the task and roles to be performed or the performance standards were structurally ambiguous to begin with. Structural evasiveness, in turn, should provide grounds that encourage deflection activity. In the next section we relate specific service and organizational characteristics to deflection behavior. Although it is recognized that many of these variables are inter-related, they will each be discussed separately.

Degree of Intangibility

The intangibility of services refers to both the absence of a physical referent as well as to the difficulty of mentally grasping the qualities or characteristics of the service. This results in what Bowen and Jones (1986) refer to as performance ambiguity (i.e., the difficulty in judging how well the service was performed as well as to the subjectivity of many of the performance standards). Performance ambiguity makes it difficult to measure the performance of different parties in the exchange and to determine the role that various factors played in contributing to the final outcome. Thus, performance ambiguity makes it difficult to establish the cause-effect relationship that produced the service. Consequently, to the degree that a service is dominated by abstract, intangible attributes, or to the degree that the tangible attributes are not easily evaluated, the employee may experience difficulty in assessing attributions for the failure or may hold an attribution only tentatively. Intangibility causes doubt regarding the number of plausible explanations towards which blame may be attributed by the employee and provides greater opportunity for employees to shift blame.

P1: Employee deflection activity will vary positively with the intangibility of the service attributes.

Degree of Inseparability

Inseparability refers to the simultaneous production and consumption of services. While the degree of inseparability may be determined by the type of service, it can also be controlled by management (Chase 1978; Lovelock 1983). In services characterized by a high degree of inseparability, there is considerable overlap between the core service operations and customer contact. Unlike with goods where the customer's main form of participation is the purchase act itself, with services the customer may also play a role in the service production. This role may be minute such as in situations in which the contact personnel simply acts as an intermediary between the customer and the core service provider, or it can be quite extensive such as when the contact personnel is actually the core service provider and when consumption and production of the service occur simultaneously, e.g., health and beauty care. In many services characterized by a high degree of inseparability, feedback from the customer determines the selection, combination and order of service delivery, thus furthering the customer's involvement in the service production. To the degree that the customer participates in the service process (inseparability), then he or she becomes a plausible source of blame should the service performance fall short of expectations. A high degree of inseparability provides opportunities for the employee to shift blame toward the customer.

P2: Employee deflection should be positively related to the degree of service inseparability.

Degree of Complexity

The complexity of a service is defined by the number and the intricacy of the steps required to perform it (Shostack 1987). According to Thompson (1967), the most long-linked services are those that are designed such that the customer contact personnel and the core service operations are totally separate from one another. This type of service usually involves a series of independent and discrete steps that can be performed by different intermediaries. For example, a customer's purchase of customized home decorating products is likely to entail a long delivery system that may include a salesperson, contractor, decorator and installer. The dissatisfied customer is likely to complain first to the last link in the chain. However, in a series of deflection strategies by the various workers involved, blame can be shifted from one source in the link to another, i.e., the installer blames the decorator who, in turn, blames someone else. In complex services such as this, many different people and factors contribute to the service outcome. Thus, service failure can be caused by a number of different variables, providing a large number of plausible explanations upon which the employee can rely.

P3: Employee deflection activity will vary positively with the complexity of the service.

Duration of The Service Delivery Process

The longer it takes for service delivery to be completed, the more likely it is that customers will require information on work in progress-- such as estimated completion dates, quality of on-going tasks, projected costs, and so forth. This increases the number of contacts as well as enhances the likelihood of an employee to engage in deflection activity. Moreover, the longer the duration of the service delivery then the more opportunities for mistakes or poor service to occur with a subsequent increase in plausible sources for the mistakes.

P4: Employee deflection activity will vary positively with the length of the service delivery process.

Role Conflict

The role attached to any position in an organization represents the set of behaviors and activities to be performed by the person occupying that position (Katz and Kahn 1978). The role is defined through the expectations, demands, and pressures communicated to employees by individuals (e.g., top managers, immediate supervisors, customers) who have a vested interest in the manner in which employees perform their job (Katz and Kahn 1978). One particularly relevant type of role conflict is the perceived clash between expectations of customers and expectations of the organization as understood by employees (Kahn, Wolfe, Quinn, Snoek, and Rosenthal 1964; Rizzo, House, and Lirzman 1970). Because contact employees are the links between the company and the customer, they

must satisfy the needs of both. Conflict can even occur over how problems are to be resolved. For example, several writers (Blau and Scott 1963; Bar-Yosef and Schild 1966; Katz and Danet 1973) have pointed out that organizations normally require universal and specific treatment of clients while the client expects the service-giver to consider their special case and to treat them as a whole person. Shamir (1980) has referred to this as "The Two Bosses Dilemma."

Role conflict may occur when employees are expected by customers to perform a service for a customer on time (deliver the pizza to the table within 15 minutes of ordering) and are also expected by management to collect money, clear tables, keep orders straight, etc. When a customer expresses dissatisfaction the employee may respond by shifting blame to other customers ("We are extremely busy tonight") or to "back-room" personnel ("The kitchen mixed up your order").

Role conflict can also be generated for employees through excessive paperwork or unnecessary internal roadblocks. For example, retail clerks who must complete numerous and time-consuming forms for each return or exchange no matter what the price or reason, may experience role conflict if other customers are waiting to be served. Complicating the issue is that the other customers in line may become irate and complain (which leads to a potential to engage in deflection behavior) and or leave the store. Additional conflict may also be generated by the reality that the clerk may be measured -- and rewarded--on the basis of selling achievements without regard to how well they handle a customer returning merchandise. Such situations are more likely to lead to increased usage of deflection strategies because the unclarity regarding the appropriate tasks to be performed permits the employee to divert responsibility by drawing attention to the fact that they were effectively fulfilling their other role. This shifts blame toward the sources of role conflict.

P5: Employee deflection activity will vary positively with the amount of role conflict.

Role Ambiguity

When employees do not have the information necessary to perform their jobs adequately, they experience role ambiguity (Katz and Kahn 1978; Walker, Churchill, and Ford 1977). Role ambiguity may increase deflection activity because the employee does not have a clear understanding of their own (or other parties to the service process) responsibility in affecting the service delivery. Thus, when service failure occurs, it is unclear with whom responsibility for the failure should be most directly linked. This may be especially true if other policies and procedures are in place which dictate or constrain behavior in such a way as to prevent causal resolution.

P6: Employee deflection activity will vary positively with the amount of role ambiguity experienced.

Span of Control

Span of control refers to the number of employees reporting to a single manager (Ouchi and Dowling 1974). The wider the span of control, the less potential there is for control over the employee and the greater the individual responsibility and initiative among employees' (Child 1984; Worthy 1950). Employees are more likely to use their own discretion in influencing blame with wide spans of control. Moreover, employees can evade responsibility to the extent that they are managed by a supervisor who must also direct many other employees.

P7: Employee deflection activity will vary positively with the size of the span of control in the organization.

In summary, it is hypothesized that organizational variables that encourage employees to evade responsibility exert a powerful force on employee excuse-making behavior. An organizational characteristic such as span of control can lead the employee to engage in excuse behavior that is detrimental to the firm and customer satisfaction. Organizational variables such as role conflict and role ambiguity can lead the employee to make excuses that lessen the blame on themselves but shift it to other sources in the firm. Several organizational variables that we have discussed are interrelated. Intangibility, duration of the service delivery process, and complexity of the service are all likely to influence role ambiguity. Likewise, wide spans of control can lead to more role ambiguity as well as role conflict (Chonko 1982). The interdependence of these variables will complicate this process by either magnifying or diluting the effects of these variables.

CONCLUSIONS

Excuses are a common part of our everyday lives. They appear in a wide variety of situations including the work environment and they can have a major impact on customer perceptions of service quality and satisfaction. If the customer honors the excuse, it is much more likely that the gap between what happened and what should have happened will be bridged. The excuse provides a causal explanation that if plausible, restores customer faith in the service. However, if the excuse is not honored, and then the employee and customer disagree about who or what is to blame, customer perceptions of service quality and customer dissatisfaction are likely to be impaired. Deflection behavior may be unethical if the excuse is false or misleading. Additionally, deflection behavior may result in the the loss of valuable information if the customer is dissuaded from pursuing their complaint. Thus, deflection behavior and its consequences should be of concern to marketers. We have argued that certain organizational characteristics

should act like warning signs for potentially unmanaged deflection activity and should signal to the manager that steps should be taken to ensure that employee excuse-making is effectively managed. If the complaint process is to be strategically managed, then it becomes essential to know when excuse making is most likely to occur.

The theoretical framework advanced in this paper provides a rich environment for research. Obviously, empirical investigations of the propositions presented need to be conducted. Such investigations would necessarily involve a classification scheme of service industries that explicitly considered intangibility, inseparability, complexity, and duration of service delivery. Because inseparability is frequently a strategic variable, a central issue for managers centers around understanding the customer-employee interface and its management. The questions of how employees handle the service failure process and how the service firm can optimize the outcome should assume importance in the marketing process and represent important concerns for consumer behaviorists.

A second area to investigate is the impact of deflection activity on both the customer and the employee as it pertains to different deflection targets. Although this issue has been addressed previously (Bitner 1990), a full classification scheme of deflection targets has not been addressed. For example, what are the ramifications of deflecting vertically within the organization or externally to another agent? To what extent does the customer differentiate between the contact person and the other members of the firm and what are the ramifications of distinguishing between them? Clearly, employees frequently offer such excuses ("I'm sorry for the error. We're training a new clerk and it's his first day on the job," or "We subcontract that part of the job out and I have no control over what they do"). But should employees "pass the buck" and to what extent does such deflection activity moderate the resolution outcome for both the employee and the customer?

Other areas could be addressed as well. For instance, research in deflection activity could help managers determine the type of personnel selection and training programs which can lead to successful deflection outcomes, as well as the impact of successful/unsuccessful deflection activity on customer and employee retention. Other variables not directly discussed in this paper could also be investigated. For example, how does deflection activity differ between experienced and inexperienced employees or between part-time and full-time employees? What role does advertising play in this process? Finally, how does deflection activity impact the customer's and the employee's perception of service quality? In an increasingly complex and competitive environment further elaboration of the process occurring among the employee, the customer, and perceived service failure needs to be developed and their implications clearly outlined.

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Health Promotion Services Consumption: Involvement and Program Choice

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ABSTRACT

This study examines consumer involvement as a predictor of employee decisions to enroll in worksite health promotion programs. The research extends the application of the involvement construct to the area of the consumption of services, and contributes to the validation of Zaichkowsky's (1985) Personal Involvement Inventory. A short form of the PII is developed specifically for use in adult, non-student populations, and is used to effectively differentiate among employee health promotion program choices.

INTRODUCTION

The conceptualization and scaling of involvement has been of interest to consumer researchers since the concept's introduction to consumer behavior almost three decades ago (Krugman 1965). As the concept and its measurement have evolved, issues related to the dimensionality of the construct and appropriate strategies for the measurement of involvement have been debated in the literature (Higie & Feick, 1989; Jain & Srinivasan, 1990; Laurent & Kapferer, 1985). Nevertheless, there is a consensus among many researchers that the essence of involvement is perceived personal relevance (Celsi & Olson, 1988; Higie & Feick, 1989; Krugman, 1967; Petty & Cacioppo, 1979; Zaichkowsky, 1985).

Zaichkowsky (1985) has developed a measure of involvement based on its definition as perceived personal relevance. The Personal Involvement Inventory (PII) was designed to be generalizable across people, objects and situations. The research reported here illustrates and further validates the use of Zaichkowsky's (1985) PII for the measurement of an individual's involvement with a service category in a non-traditional consumer situation. In addition, this paper describes the development of a shortened version of the PII for use in adult, non-student samples. Further, as researchers and providers in the area of worksite health promotion, we examined involvement's capacity to predict an individual's participation behavior in one of four worksite health promotion programs (smoking cessation, weight/nutrition management, stress management and exercise/fitness).

BACKGROUND

Zaichkowsky (1985) addressed the conceptualization and measurement of involvement, independent of its behavioral consequences. She defined involvement as "a person's perceived relevance of the object based on inherent needs, values and interests" (p. 342). Celsi and Olson (1988) further explicate involvement as essentially perceived personal relevance. Perceived relevance is a function

of a consumer's perceptions of his/her needs, goals and values and their congruence with the consumer's knowledge of the product category. "More specifically, the personal relevance of a product is represented by the perceived linkage between an individual's needs, goals and values (self-knowledge) and their product knowledge (attributes and benefits)" (p. 211). The greater the perceived linkage, the stronger the feelings of personal relevance of the product category.

It has been suggested that an individual's level of involvement affects product-related information searching and decision-making (Engel, Kollat & Blackwell, 1978; Bettman, 1979), as well as his/her processing of persuasive communications and resultant attitude change (Petty & Cacioppo, 1986).

Using involvement to explore employee relationships with worksite health promotion programs will advance the study of employee participation in several ways. It will provide practical information for program providers as well as basic information for theory development. A primary goal of health promoters is to increase participation in worksite health promotion programs. Studying involvement will increase the health promoter's understanding of the factors influencing the decision-making process of those individuals choosing to participate or not participate in the programs. Ultimately, involvement could be used as a segmentation variable, particularly for the development of appropriate promotional messages for the varied target audiences.

In addition, using involvement to profile the target audience's perceived relevance of health promotion programs would add a valuable consumer dimension to the study of participation in health promotion activities. Research on participation in worksite health promotion programs has provided little insight regarding an individual's decision to participate in programs, and has been dominated by a medical perspective for profiling and targeting audiences.

In a review of the literature on worksite health promotion programs, Conrad (1987) concluded that "participants seem to be a self-selected, somewhat healthier group of employees" (p.318). A more recent, but unpublished review of the participation literature suggests that there are few variables consistently found to be related to participation. From among 40 variables reported in 21 studies, only self-efficacy, smoking status and education level consistently distinguished between participants and non-participants (Mavis, Stachnik, Gibson & Stöffelmayr, unpublished manuscript). The self-selection process has been troublesome to health promoters, since individuals who participate are not

the individuals who exhibit the most health-related need.

This research investigates an individual's perceived relationship with worksite health promotion services by measuring the individual's involvement with the specific programs offered. In contrast to the traditional approach of health risk profiling, we hypothesize that involvement levels with the health promotion programs will differentiate audiences for a variety of programs.

Measuring Involvement

Involvement was defined as an individual's "perceived relevance of the object based on inherent needs, values, and interests" (Zaichkowsky 1985, p. 342). The scale used to measure involvement was Zaichkowsky's (1985) 20-item semantic differential Personal Involvement Inventory (PII), which has been shown to have reliability and validity.

Unlike previous studies which have used the PII to study involvement using primarily student-based samples (Celsi & Olson, 1988; Jensen, Carlson & Tripp, 1989; McQuarrie & Munson, 1987; Zaichkowsky, 1985; 1987), this research examined involvement levels in one adult sample of employees, and one adult sample with some graduate students. Since we were primarily interested in the adult sample, we were concerned about the appropriateness of the PII when used with groups other than students. We decided to systematically modify the scale for future use in an adult, non-student population.

These concerns appeared to be well-founded. McQuarrie and Munson (1987) commented on the syllable count of some of the words used in the scale, noting "in general, the syllable count for the PII seems uncomfortably high" (p. 37). In addition, when the present researchers pretested the scale, feedback from participants indicated that the length of the scale would prohibit its usage more than once in a sitting. In fact, some respondents reported that one presentation of the scale was "annoying". We thought it necessary to shorten the PII by eliminating problematic items, while maintaining the scale's integrity.

Research Objectives and Contributions

The initial objective of this research was to examine the utility of involvement for the study of employee participation in worksite health promotion programs. However, given the previously mentioned considerations, the development of a short version of the PII for use in non-student samples became another objective of the research.

The results reported in this paper focus on the measurement of involvement. The study tests the factor structure of Zaichkowsky's (1985) 20-item scale with an adult, non-student sample, in response to a service rather than a product. In addition, the short version of the scale was developed based on the data from one sample of subjects and then cross-validated in another sample to assess its criterion-related validity against a behavioral outcome measure obtained two months after the scale was administered.

PII MODIFICATION

The rationale for the modification of the PII was based on meeting the following objectives:

1. the development of a 10-item version of the PII to minimize respondent annoyance and fatigue when the scale is used in a repeated measure situation;
2. the identification and elimination of scale items which may prove problematic to some subjects as a function of their level of education;
3. the minimization of redundant items (McQuarrie & Munson, 1987); and
4. the maintenance of the factor structure established by Zaichkowsky (1985).

Problematic items were identified using missing value data and reading levels associated with the words used in the scale. One sample of subjects was used to generate missing value data and the factor structure of the full PII scale. A second sample was used to evaluate the shortened version.

The Health Promotion Services Package

The services subjects rated were a package of health promotion programs available through the university. Four behavioral modification programs, stress management, exercise/fitness, weight control and smoking cessation were available to units requesting the service. Employees could participate in programs free of charge, however, the unit administrators incurred fees to cover the costs of programs. The programs consisted of supervised, group, weekly meetings and continued over the course of fifteen weeks.

Missing Value Data: Sample I

All of the employees with offices located in the administration building of a major midwestern university were used as subjects in this part of the study. Since the health promotion programs were offered to the employees of an entire building or "worksite" at one time, the design required that all employees within the building be eligible for participation in the research. At the time of this study, the administration building had been targeted for the next series of health promotion activities.

As a part of a larger research project, the 20-item involvement scale was included in a survey distributed to the sample via intracampus mail. The survey was a pre-intervention measure, used to obtain baseline measures of health-related psychographic variables, as well as demographic profiles. A total of 287 useable surveys were returned; this represents a 57.3% response rate. The characteristics of the respondents are listed in Table 1.

Each participant was asked to rate one of four health promotion programs using the 20-item involvement scale. The four programs were weight management, exercise, smoking cessation, and stress management. Pre-testing the survey led us to believe that asking subjects to rate more than one program

TABLE 1
Demographic Characteristics of Sample I Survey Respondents

<u>Characteristic</u>	<u>Males</u>	<u>Females</u>
Sample Size	77 (26.9%)	209 (73.1%)
Age (Mean Years)	43.3	39.5
Median Years	42	40
Marital Status		
Single	11.7%	16.3%
Married	84.4%	66.5%
Divorced	3.9%	15.8%
Widowed	0.0%	1.4%
Mean Years at University	13.3	10.0
Median Years	11	7
Mean Years in Current Department	6.9	11.6
Median Years	10	4
Job Description		
Faculty/Manager	27.2%	3.4%
Clerical/Technical	10.4%	55.0%
Supervisory Staff	57.1%	39.2%
Other	5.2%	2.4%

TABLE 2
Frequency of Missing Values for Personal Involvement Items

ORDER WORD PAIR	TOTAL	EMPLOYEE GROUP		
		FACULTY	STAFF	SUPERVISOR
16. mundane/fascinating	36	4	16	16
14. unexciting/exciting	35	4	16	15
20. not needed/needed	34	3	16	15
12. vital/superfluous	34	3	15	16
13. boring/interesting	34	3	15	16
18. undesirable/desirable	34	3	16	15
10. uninterested/interested	33	3	16	14
17. essential/nonessential	33	4	14	15
11. significant/insignificant	31	3	13	15
19. wanted/unwanted	30	3	13	14
15. appealing/unappealing	30	3	13	14
9. matters/doesn't matter	29	3	13	13
7. trivial/fundamental	27	2	15	10
3. irrelevant/relevant	27	2	14	11
2. no concern/of concern	25	2	13	10
5. useless/useful	25	2	13	10
4. means a lot/means nothing	23	2	11	10
8. beneficial/not beneficial	19	2	10	7
1. important/unimportant	17	2	7	8
6. valuable/worthless	18	2	8	8
MEAN	28.8	2.8	13.3	12.7

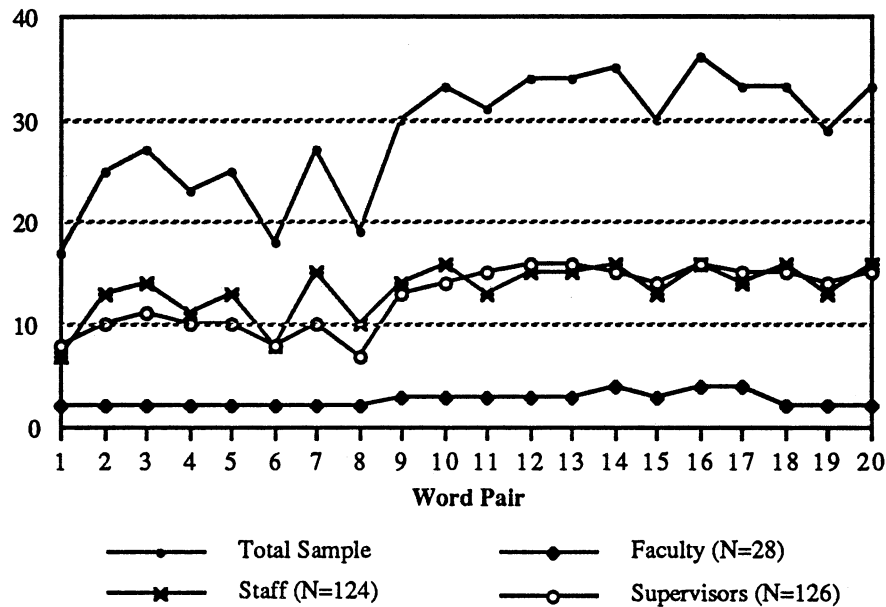
would severely reduce our response rate, and possibly create respondent fatigue, boredom and response bias.

Respondents were categorized into three employee groups: faculty, supervisors, and clerical-technical support staff. The frequency of missing values for each of the 20 items were tabulated separately for each employee group. Table 2 lists the items in ranked order based on the total missing values across all three employee groups. The number next to each word pair indicates the order of presentation of

the word pair within the scale. Figure 1 graphically depicts the pattern of missing values for each employee group and for the total sample.

Certain word pairs were unanswered more often than others; faculty had the lowest rate of missing data across all items compared to the two other employee groups. The pattern of missing data suggests that the education level of the respondent was related to successful completion of the Personal Involvement Inventory.

FIGURE 1
Frequency of Missing Responses for Each Word Pair



Another possible contributing factor is subject fatigue. The data in Figure 1 do not suggest any overall fatigue in the response pattern, although a possible interaction with level of education is evident. Little or no evidence of a fatigue effect, as indicated by an increased frequency of missing items tended to be found for faculty. The frequency of missed items tended to increase among the responses for supervisory staff, whereas the clerical-technical staff patterns show the clearest evidence of possible fatigue.

Grade Level for Personal Involvement Items

The *American Heritage Word Frequency Book* reports the results of a survey of over 2,000 public, private and parochial schools, 10,000 texts and 5 million words, for the frequency of word usage by grade level. The information provided in the report indicates the modal grade level at which the words are presented to students. In order to assess the reading level of the involvement scale, the grade assignments provided by the word frequency book were determined for the word pairs comprising the scale.

Table 3 displays the grade levels associated with the words in each word pair for the 20-item involvement scale. The word pairs are listed in the same order as in Table 2, representing their ranking based on missing values. The average grade level associated with the scale is 6.13, the median grade level is 7, and the grade level ranges from second to twelfth grade.

Factor Analysis

The data used in the factor analysis included all 287 subjects' responding to the four different health

promotion programs. The results of the factor analysis for the 20 items comprising the scale, using varimax rotation, are reported in Table 4.

The first factor explained 63.6% of the total variance; the amount of variance explained by the second factor was 7.0%. All of the items loaded positively on the first factor. The residual factor consisted of four items with higher loadings on the second than the first factor. The word pairs comprising the residual factor were boring/interesting, unexciting/exciting, mundane/fascinating, and appealing/unappealing. The two-factor solution was comparable to that reported by Zaichkowsky (1987), with the same items loading on the residual factor. The data validate the scale's factor structure, even when used to measure involvement with a service category not traditionally considered in consumer behavior.

THE SHORT FORM OF THE PII

A rational-empirical approach to scaling (Jackson 1970) was used to combine the information on the average reading levels of the word pairs, their missing value frequencies, and the factor analysis to select 10 items for deletion from the scale. Of the ten items with the highest missing value frequencies, eight were dropped. This effectively reduced most of the redundancy in the scale, and eliminated items with high grade levels such as vital/superfluous and mundane/fascinating. Of the items with the lowest missing value frequencies, two were dropped. The six items with highest missing values were eliminated. Of those six, three belonged to the second factor; consequently, appealing/unappealing (the remaining item on the second factor) was retained.

TABLE 3
Grade Reading Level for Personal Involvement Items

16. mundane	9	fascinating	7
14. unexciting	3	exciting	3
20. not needed	2	needed	2
12. vital	7	superfluous	12
13. boring	8	interesting	4
18. undesirable	7	desirable	9
10. uninterested	7	interested	4
17. essential	7	nonessential	9
11. significant	7	insignificant	8
19. wanted	2	unwanted	7
15. appealing	8	unappealing	8
9. matters	7	doesn't matter	7
7. trivial	7	fundamental	7
3. irrelevant	7	relevant	9
2. no concern	5	of concern	5
5. useless	3	useful	3
4. means a lot	3	means nothing	3
8. beneficial	9	not beneficial	9
1. important	3	unimportant	7
6. valuable	6	worthless	5

With six items eliminated, four items from the first factor were then identified for elimination. Congruent with McQuarrie and Munson's (1987) concerns that four of the items "seemed inappropriate for use with a non-college educated population", trivial/fundamental and significant/ insignificant were eliminated. Mundane/fascinating and vital/ superfluous had been already eliminated based on their overall missing values and reading levels. Significant/insignificant exhibited relatively high missing values and reading levels. Despite the fact that the overall missing value for trivial/fundamental was not in the top ten rank, it was more highly ranked for the occupational group of staff people, who were likely to have lower levels of education than the other two occupational groups.

Using both the missing values and reading levels, wanted/unwanted and beneficial/not beneficial were the last two items eliminated. Wanted/unwanted had the highest missing values of the items remaining (not including essential/nonessential) and beneficial/not beneficial had the highest reading levels. (Essential/nonessential had been retained since other items with similar meanings, such as not needed/needed, and trivial/fundamental, had already been eliminated.)

The final shortened version retains one item from the residual factor (appealing/unappealing) and nine items from the main factor. The items in the shortened version of the PII are uninterested/ interested, essential/nonessential, appealing/ unappealing, matters/doesn't matter, irrelevant/ relevant, no concern/of concern, useless/useful, means a lot/means nothing, important/unimportant, and valuable/invaluable.

The reading level information on the original and short forms of the scale are presented in Table 5. The average reading level of the shorter version is less

than that of the original; this change is not statistically significant ($t(58) = .502$). However, the highest grade level associated with the scale has been reduced from twelfth grade to ninth grade.

The data from the original sample were rescored based on the new 10-item short form of the scale. The correlation between the original and short forms of the scale was .98. The internal consistency estimates for each version of the scale, using Cronbach's alpha, were comparable. Alpha was .968 for the full scale and .946 for the short scale. A comparison of the distribution of the scale scores for the administration building sample are provided in Table 6.

Sample II

The short version of the PII was administered to a second sample of subjects. The 268 subjects were faculty, staff and graduate students in two academic campus buildings where health promotion programs were being offered. Subjects were asked to provide ratings of personal involvement for each of three programs: weight management, stress management and exercise programs. The demographic profile of the this second sample is displayed in Table 7. In contrast to the characteristics of Sample I, Sample II consisted of more males than females, was somewhat younger, and contained graduate students.

Internal Consistency

Since subjects' responded on the short form of the PII for all three health promotion programs, Cronbach's alpha was calculated across subjects' responding for each program. The scale exhibited high internal consistency for all three programs; the short form PII alphas were .946 for the weight management program, .945 for the exercise program and .952 for the stress management program.

TABLE 4
Factor Loadings for Personal Involvement Items

ORDER WORD PAIR	FACTOR 1	FACTOR 2
16. mundane/fascinating	.205	.869
14. unexciting/exciting	.299	.869
20. not needed/needed	.715	.426
12. vital/superfluous	.679	.394
13. boring/interesting	.389	.802
18. undesirable/desirable	.764	.409
10. uninterested/interested	.771	.420
17. essential/nonessential	.718	.377
11. significant/insignificant	.768	.359
19. wanted/unwanted	.770	.444
15. appealing/unappealing	.457	.747
9. matters/doesn't matter	.758	.342
7. trivial/fundamental	.659	.239
3. irrelevant/relevant	.788	.300
2. no concern/of concern	.683	.193
5. useless/useful	.791	.352
4. means a lot/means nothing	.731	.393
8. beneficial/not beneficial	.786	.234
1. important/unimportant	.812	.287
6. valuable/worthless	.781	.174

TABLE 5
Reading Levels for Original and Short PII

	<u>Original</u>	<u>Short Form</u>
Number of word pairs	20	10
Mean grade level	6.13	5.80
Median grade level	7	6
Range	10	6
Minimum level	2	3
Maximum level	12	9

TABLE 6
Distribution For Original and Modified PII

	<u>Original</u>	<u>Modified Form</u>
Mean	5.73	5.86
Variance	0.91	0.98
Range	5.85	5.90
Minimum	1.15	1.10
Maximum	7.00	7.00
Standard Error	0.06	0.06

TABLE 7
Demographic Characteristics of Sample II Survey Respondents

Characteristic	Males	Females
Sample Size	175 (65.3%)	93 (34.7%)
Age <29 years	36%	37%
30-39 years	29%	41%
40-49 years	15%	10%
50+ years	21%	12%
Marital Status		
Single	26.2%	37.4%
Married	70.9%	53.8%
Divorced	2.9%	6.6%
Widowed	0	2.2%
Mean Years at University	3.5	3.3
Median Years	3	3
Mean Years in Department	3.4	2.8
Median Years	3	3

Criterion-Related Validity

Six weeks after the short form PII scores were collected, program enrollment began. One might hypothesize that individuals who viewed health promotion programs as more personally relevant would be more likely to use the programs than individuals who viewed the programs as less personally relevant. In fact, individuals viewing a specific program, such as weight management, as more personally relevant than the other programs, would be more likely to use the weight management program rather than the stress or exercise programs.

Based on these speculations the following hypotheses were developed:

1. Program participants will have scored higher on the short PII in response to all programs as compared to non-participants.
2. Participants in the weight management program will have scored highest on the short PII in response to the weight management program as compared to their scores in response to the exercise and the stress programs.
3. Participants in the stress management program will have scored highest on the short PII in response to the stress management program as compared to the exercise and weight programs.
4. Participants in the exercise program will have scored highest on the short PII in response to the exercise program as compared to the weight and stress programs.

To test these hypotheses, the short form PII scores of program participants and non-participants were compared using a four group ANOVA with a repeated measure. A significant main effect of program enrollment (see Tables 8 and 9) confirms the first hypothesis; program participants exhibited higher short form PII scores than non-participants. Hypotheses 2, 3 and 4 were confirmed by the pattern

of short form PII scores and the significant interaction (see Tables 7 and 8).

Involvement and Program Choice

Other research on worksite health promotion program participation has indicated that self-efficacy, smoking status and education are related to participation. The findings on the relationship between smoking status and participation are somewhat tautological: smokers join programs on smoking cessation and non-smokers do not. Additional analyses were performed to determine the potentially confounding effect of education on program choice (self-efficacy was not measured in this study).

Education was not directly measured in this study so job level was used as a surrogate measure for education. A three group ANOVA (Faculty, Staff, Graduate Student) with a repeated measure (PII scores for the weight, stress, and exercise programs) produced no significant main effect of job level ($F(2,237)=1.17, p=.311$).

DISCUSSION

The data presented in this paper support the generalizability of Zaichkowsky's PII across situations and objects. The full form PII exhibited the same factor structure as reported by Zaichkowsky in 1985. However, the data also suggest that the PII may not be as generalizable across people. The education level of the subjects appears to be an important factor in assessing the applicability of the PII for measuring involvement in adult, non-student populations. The subjects in our study represented a broader range of adults than usually seen as respondents in studies on involvement; the supervisory and the clerical-technical staff exhibited a greater number of item omissions on the full form PII than the faculty in our sample. Indeed, the supervisory and clerical-technical staff exhibited a tendency towards response fatigue which may have indicated a greater degree of difficulty with the PII than experienced by faculty.

TABLE 8
Repeated ANOVA for Personal Involvement Ratings

Source	SS	MS	df	F	p
Program	44.920	14.973	3	6.294	.001
Error	575.744	23.79	242		
Personal Involve.	8.132	4.066	2	4.090	.017
Program x PI	28.333	4.722	6	4.750	.001
Error	481.160	0.994	484		

TABLE 9
Mean Personal Involvement Ratings by Program Participation

<u>Program Enrolled</u>	<u>PII Weight</u>	<u>PII Exercise</u>	<u>PII Stress</u>
Weight Management	5.956	5.788	5.138
Exercise	5.175	6.196	5.185
Stress Management	5.300	5.239	6.189
No Program	4.679	5.309	4.978

The short form PII provides an alternative measurement tool when education levels are an issue in the sample being studied. In addition, when more than one administration of the PII is desirable, the short form PII would lessen the likelihood of respondent fatigue. When involvement is measured in applied settings, rather than the laboratory, scale length is crucial particularly when it is included as one of a series of measures. In contrast to Zaichowsky's claim that a reduction in scale length would not affect ease of administration (1985, note 1), the results of this research suggest that scale length is important.

The results of this study provide a new direction for the study of health promotion. The relationship between the short form PII scores and enrollment behavior was especially encouraging, and the six week time delay between the collection of the PII scores and subjects' enrollment choices strongly supports the observed relationship. This finding may be useful to worksite health promoters for the planning and implementation of communication strategies. Individuals in this study enrolled in programs which appeared personally relevant to them. The traditional medical model approach to health promotion program enrollment ignores the perceived needs and desires of the employees and uses risk factors to assess the individual's need for a particular program.

Additional issues of scale validation arise regarding the generalizability of the finding that involvement is related to program choices. The results may be generalizable to other worksite health promotion situations, however, how do they relate to other types of brand choices? The specific worksite health promotion program offerings studied in this research have been viewed by the researchers as varieties of a brand. For some time the researchers have become acutely aware of the need to establish "corporate" image, brand name recognition and brand identity on campus. Marketing and communication

efforts have been incorporated into the structure of the overall health promotion plan; even a logo has been developed to enhance image and recognition. Nonetheless, worksite health promotion services constitute a wide product category and the domains of brands versus product categories remains unclear.

For instance, an alternative perspective is to view different programs as representative of different product categories. A weight management program can be viewed as a product category within which several brands are offered, including private labels such as Weight Watchers, and public sector brands, such as the one in this study.

The three programs offered in this study are all based on the same behavior modification theory and are structured in similar ways. In fact, one person with a need to lose weight could satisfy that need in an exercise program and one person with a need to reduce stress could do so in the exercise programs, as well. The different programs may satisfy the same need, but cater to different tastes for behavioral change. It is difficult to know how to classify the programs from a brand or category perspective, however, consumer perceptions may provide the necessary information for clarifying this point. Clearly, additional research is needed to further validate the use of the shortened version of the PII.

The area of worksite health promotion is increasing in its importance and individuals are coming in contact with such services on a more regular basis. Indeed, the commercialization of health promotion has dramatically grown in the past decade as evidenced by the increased number of advertisements promoting home exercise equipment, weight control programs, and diet/nutritional supplements. As the focus of health shifts from an illness perspective to a preventative and health maintenance perspective, these issues will become a more important part of the consumer's daily living and health services decision-making activities.

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A Factor Analytic Investigation of Belk's Structure of the Materialism Construct

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ABSTRACT

Materialism has been identified as a potentially important dimension to further the understanding of consumer behavior. A series of articles, principally by Belk, has traced the development of a scale to measure aspects of materialism: possessiveness, nongenerosity, and envy. Belk implies that materialism may be a second-order factor composed of these traits, and possibly other unspecified traits. This research extends the study of the reliability and validity of the materialism construct through the use of confirmatory factor analysis on both the implied first-order and second-order congeneric factor models as well as on a congeneric composite model. All of the models tested did not meet the criteria for most generally accepted goodness of fit indicators. It is suggested that continued work is necessary to develop a set of unidimensional measures for the subscales.

Belk (1984) believes materialism to be a critical but neglected issue in consumer behavior. The materialism construct may be an important segmentation criteria during the 1990's, especially if there is a shift away from a monetary orientation and self-centeredness (Van Gorder 1990). Advertising has been condemned as a force promoting materialism as the means to happiness, status seeking, social stereotypes, shortsightedness, selfishness, and preoccupation with sexuality and conformity. But measures for materialism have not been available to assess empirically any of these charges (Belk & Pollay 1985; Pollay 1986; Lantos 1987).

In addition to the assessment of a possible causal link with a variety of social ills facing the modern world, measures for materialism may also be useful marketing tools in the quest for profitable segmentation strategies. Response functions for segments based on ranges within the materialism dimension may differ for various product types, product quality, and service quality.

Belk hypothesizes that materialism is composed of several traits including, but not necessarily limited to, possessiveness, nongenerosity, and envy. Possessiveness is defined as "the inclination and tendency to retain control or ownership of one's possessions (Belk 1983, p. 267)." However, anecdotal evidence suggests that the role of objects as cultural icons to emphasize social ties or accomplishments may not be related to the possessiveness component of materialism (Wallendorf and Arnold 1988). Nongenerosity is defined "an unwillingness to give possessions to or share possessions with others (Belk 1984)." Belk (1985, p. 268) reports Schoeck's definition of envy as "displeasure and ill will at the superiority of another person in happiness, success, reputation, or the possession of anything desirable."

After traditional scale development for the three measures of materialism traits, Belk found

moderate reliabilities for the scales based on the inter-item and item-to-total correlations. His findings showed coefficient alphas of .68, .72, and .80 for the scales measuring possessiveness, nongenerosity, and envy, respectively.

Belk (1985) also offers evidence that the three subscales are oblique factors of the materialism construct by finding non-zero correlations between the sums of the items for each subscale. This furthers speculation that materialism may be a second-order factor responsible for the correlation among these first-order factors. However, based on this correlation matrix and other evidence Belk (1985) proposes the use of the aggregation of all three scales as a measure of materialism, and believes it to be adequate for the exploration of some of the macro issues facing consumer behavior with respect to materialism.

The nature of the materialism construct, with respect to these subscales and their measures, can be further tested with hypotheses by applying the confirmatory factor analytic techniques of Joreskog (1969). Recent developments have emphasized the theory-testing abilities of this technique (Bentler & Bonett 1980; James, Mulaik and Brett 1982). Competing hypotheses regarding the factor structure can be tested with various chi square statistics. When an a priori model has been specified, the goodness of fit of the model to a set of data can be determined (Joreskog & Sorbom 1986).

Purpose

The purpose of this study was to use the confirmatory factor-analytic methodology to provide a further test of Belk's scale items for the first-order constructs of possessiveness, nongenerosity, and envy. If these scales are satisfactory measures of the first-order constructs, then this methodology also can be used to test a hypothesis that materialism is a second-order factor composed, in part, of some combination of these constructs.

The Measurement Model

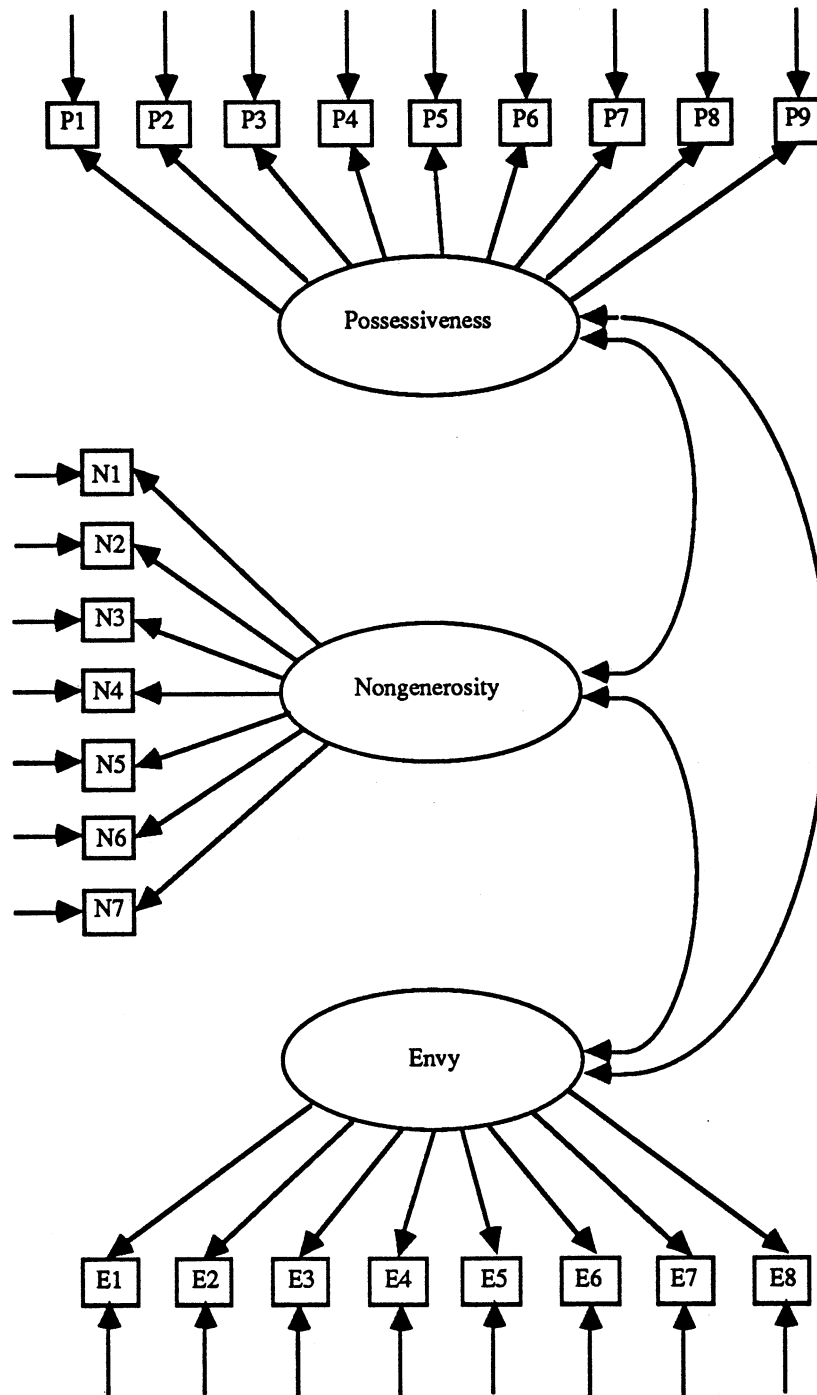
The three dimensions of materialism are identified in Figure 1. Items P1 through P9 are Belk's measures for the possessiveness construct, items N1 through N7 are measures of nongenerosity, and items E1 through E8 measure envy. The arrows from each construct to the items are factor loadings and the lone arrows represent measurement error. Uncorrelated measurement errors are assumed. The curved lines linking the factors represent correlations among the factors. The specific statements for the scale items are found in Table 1.

METHOD

The Sample

The data for the tests were gathered as part of a larger survey conducted in a large, southwestern

FIGURE 1
The First Order Factor Model of Belk's Materialism Construct



Note: Latent variables are circled and measures are within rectangles.

metropolitan area. Personal interviews were conducted and the interviewers read the statements to the respondents. Each respondent was given a coding card with a seven-point scale from one equals strongly agree to seven equals strongly disagree and asked to

rate each statement. There were 148 usable responses gathered. Two-thirds of the respondents were female.

The construct validity of the factors was evaluated by Joreskog's confirmatory factor analysis procedure using LISREL VII (Joreskog and Sorbom 1989). A one-factor and an oblique, three-factor model

TABLE 1
Belk's Materialism Subscale Items

Possessiveness

- P1 Renting or leasing a car is more appealing to me than owning one.*
 P2 I would rather buy something I need than borrow it from someone else.
 P3 I worry about people taking my possessions.
 P4 When I travel I like to take a lot of photographs.
 P5 I never discard old pictures or snapshots.
 P6 I tend to hang on to things I should probably throw out.
 P7 I get very upset if something is stolen from me, even if it has little monetary value.
 P8 I don't get particularly upset when I lose things.*
 P9 I am less likely than most people to lock things up.*

Nongenerosity

- N1 I enjoy having guests stay in my home.*
 N2 I enjoy sharing what I have.*
 N3 I don't like to lend things, even to good friends.
 N4 It makes sense to buy a lawnmower with a neighbor and share it.*
 N5 I don't mind giving rides to those who don't have a car.
 N6 I don't like to have anyone in my home when I'm not there.
 N7 I enjoy donating things to charities.*

Envy

- E1 There are certain people I would like to trade places with.
 E2 When friends have things I cannot afford it bothers me.
 E3 I am bothered when I see people who buy anything they want.
 E4 I don't know anyone whose spouse or steady date I would like to have as my own.*
 E5 When friends do better than me in competition it usually makes me happy for them.*
 E6 People who are very wealthy often feel they are too good to talk to average people.
 E7 I don't seem to get what is coming to me.
 E8 When Hollywood stars or prominent politicians have things stolen I really feel sorry for them.*
-

Note: * indicates reverse scored items.

were specified and compared to a null model. A reference metric was provided in each model by setting all of the diagonals in the factor correlation matrix (PHI) to one.

RESULTS

Confirmatory factor analytic techniques set a priori definitions of the theoretical factor structure. Factor loadings can be constrained to zero thus allowing the estimation of pure factors in the sense that the test will load only on the targeted factors. In all of the models tested here, the diagonal elements of the factor correlation matrices (PHI) were set at one to fix the scales of measurement so that the common factors would have unit variance. This puts all of the parameter estimates in a standardized metric. Each model was estimated with the correlation matrix in order to find appropriately comparable values of the root mean square residual (RMSR).

The confirmatory factor analysis literature has yet to settle on one particular criterion for model acceptability. Commonly used criteria are included in

Table 3 for each model tested. LISREL 7 output provides the chi square statistic (CHISQ), the degrees of freedom (df), a goodness of fit index (GFI), an adjusted goodness of fit index (AGFI), and the root mean square residual (RMSR). Smaller values for the chi square statistic, the chi square statistic divided by the degrees of freedom (CHISQ/df), and the root mean square residual indicate better fitting models. Better model fits are indicated as the goodness of fit indicator and the adjusted goodness of fit indicator approach 1.0.

Another useful index reflects the improvement in fit of one model with respect to another model, typically the null model. The normed fit index (Bentler and Bonett 1980) reflects the proportion of chi square eliminated by the competing model. This index ranges from zero to one; Bentler and Bonett suggest a minimum value of .90 when the competing model is compared to a fully-restricted null model. For confirmatory factor analysis the fully-restricted null model specifies an individual factor for each measurement item with factor variances set equal to

one and no covariance is allowed among the factors. Also, all of the factor loadings are set equal to one and there is no correlation specified among the errors in the measurement variables. Such a model should result in a large chi square value that many theoretically grounded alternative models will surpass with respect to various goodness of fit indices based on estimations from a reasonable data set.

The literature suggests several potential models. In one study, Belk (1985) aggregated the items in the three subscales to form a one-factor solution. In fact, he advocates its use as an overall factor for materialism (see Model 1 in Table 2). In discussing the subscales, Belk alludes to an alternative possibility that materialism is a second-order factor composed, in part, of the three first-order subscales of possessiveness, nongenerosity, and envy. If this is true, substantial positive correlation should be evident between the first-order constructs. Another interpretation of the situation is that materialism is a composite construct composed, in part, of the three subscales. Such an interpretation does not require positive correlations among the component constructs.

Belk's research suggests that an appropriate first-order model may be the oblique, three-factor, congeneric model (shown as Model 2 in Table 2). This model permits correlations among the three factors but maintains unidimensional measures. Indeed, a successful second-order model would be expected to have positive and significant correlations among the first-order factors. Perusal of the correlation matrix for the three factors and their respective standard errors indicates that only the correlation between possessiveness and envy is not significant. Model 3 in Table 2 is structured in a similar fashion but reflects the results of discarding those items with large modification indices (>5) on factors for which they are not theoretically prescribed. These large indices suggest that the items are not congeneric and, therefore, they were discarded in the interest of maintaining unidimensional measures. Scale items that are not unidimensional in nature are usually considered unacceptable because they violate an assumption of test theory (see Lord and Novick 1968). However, from a substantive stance, discarding those items to produce a more parsimonious model may change the nature of what the scales purportedly measure.

Table 3 summarizes the fit indices for the theoretical models and the empirically derived reduced models as well as two null models. The first null model (MA) was developed for the 24 item models and the second null model (MB) was developed for the 16 item, reduced models. As expected neither provides a particularly good fit on any of the indices.

Although Belk argues for the aggregation of the three factors into one general factor called materialism, this model (M1) is not particularly successful. Although there is some improvement over the null model, the normed fit index of .29 is not near the recommended value of .90 for a good fitting model. The other indicators also suggest a poor fit with the data.

Models 2 and 3 (M2, M3) are both oblique, congeneric three-factor models with the reduced version (M3) showing the results of the removal of those items that may not be unidimensional. This reduced version compares very favorably with the full 24 item model. Nonetheless, the fit indices are not conclusive: the adjusted goodness of fit indicator almost reached .90, the root mean square residual did slip below .10, but the normed fit index of .67 did not approach the suggested minimum for the fully restricted null model of .90. Also, this model, and all of the empirically derived reduced models, may capitalize on the individual nature of this particular data set.

The literature suggests that materialism may be a higher-order construct composed, in part, of the scales just investigated. The implied second-order factor model is shown in Figure 2. Although not all three subscales are positively and significantly correlated with each other, it might be argued there are enough positively correlated factors that might be capturing some aspects of this higher-order materialism construct.

The goodness of fit indicators associated with the second-order factor model (M4 in Table 2) suggest this model is essentially equivalent in quality to the three-factor first-order models (M2) but not to the reduced version of the three-factor first-order model (M3). In other words, none of the indicators suggest the second-order model is a good representation of the data, but it fares no worse than the relevant competing models tested here.

Although a second-order factor structure is theoretically defensible from the previous research that has been done, the structure of materialism could be specified as a composite construct, that is, as an aggregation of constructs, much like socioeconomic status in that it is considered a composite of social class, education and occupation and not a causal factor. This view of materialism does not require positively correlated constructs, but simply defines the materialism construct as an aggregate of subscales. Also, as Belk points out, there may be other, as yet unidentified, constructs that are additional constituents of materialism. This composite view of the materialism construct is shown in Figure 3 and for this particular model equal weights are specified for the three subscales by fixing ones in the diagonal of the gamma matrix. Additionally, the possibility of other constructs influencing the composite materialism construct is modeled by freely estimating the size of the uniqueness associated with the composite. The goodness of fit indices resulting from testing this model are listed as models 5 and 6 (M5, M6) in Tables 2 and 3. The full composite model appears to be essentially equivalent to both the full, second-order model and the full, three-factor, first-order model. Analogous results are apparent for the reduced version of the composite model, thus the models fare no better and no worse than their respective first and second-order counterparts.

TABLE 2
Factor Loadings and Factor Correlations

	M1	M2	M3	M4	M5	M6	M7
P1	.094	-.007					
P2	.013	-.146	-.015				
P3	-.469	-.092	-.133				
P4	-.134	-.541	na				
P5	.130	-.760	-.509				
P6	-.048	-.546	-.821				
P7	-.280	-.154	-.520				
P8	-.134	-.115	na				
P9	.136	.034	-.087				
N1	-.483	.617	.021				
N2	-.455	.534	.586				
N3	-.420	.540	.484				
N4	-.086	.179	.570				
N5	-.445	-.506	na				
N6	-.474	.476	-.532				
N7	-.211	.301	.514				
E1	-.505		na				
E2	-.516		.626				
E3	-.367		.772				
E4	-.268		.698				
E5	-.336		.215				
E6	-.426		.204				
E7	-.354		.447				
E8	-.164		.341				
			.149				
Correlation Matrix							
Possessiveness	1.00						
Nongenerosity	.258	1.00					
Envy	-.053	.323	1.00				
			-.032	1.00			
			.431	.431	1.00		
						1.00	

Note: Factor loading standard errors ranged from .08 to .11 and correlation standard errors ranged from .11 to .12.

TABLE 3
Goodness of Fit Measures

Model	CHISQ	df	CHISQ/df	p	GFI	AGFI	RMSR	NFI
MA - 24 Factor Null Model	749.06	252	2.97	.000	.646	.579	.148	
MB - 16 Factor Null Model	317.86	104	3.06	.000	.753	.677	.139	
M1 - 1 Factor	530.78	252	2.11	.000	.742	.693	.105	.291
M2 - 3 Oblique Congeneric Factors	433.99	249	1.74	.000	.800	.759	.104	.421
M3 - Reduced 3 Oblique Factors	106.43	101	1.05	.337	.920	.892	.066	.665
M4 - 2nd Order Factor	433.99	248	1.75	.000	.800	.753	.104	.421
M5 - Reduced 2nd Order Factor	106.40	95	1.12	.199	.920	.885	.066	.665
M6 - Composite Construct	433.99	248	1.75	.000	.800	.758	.104	.421
M7 - Reduced Composite	106.43	100	1.06	.311	.920	.891	.066	.665

FIGURE 2
Materialism As A Second Order Factor

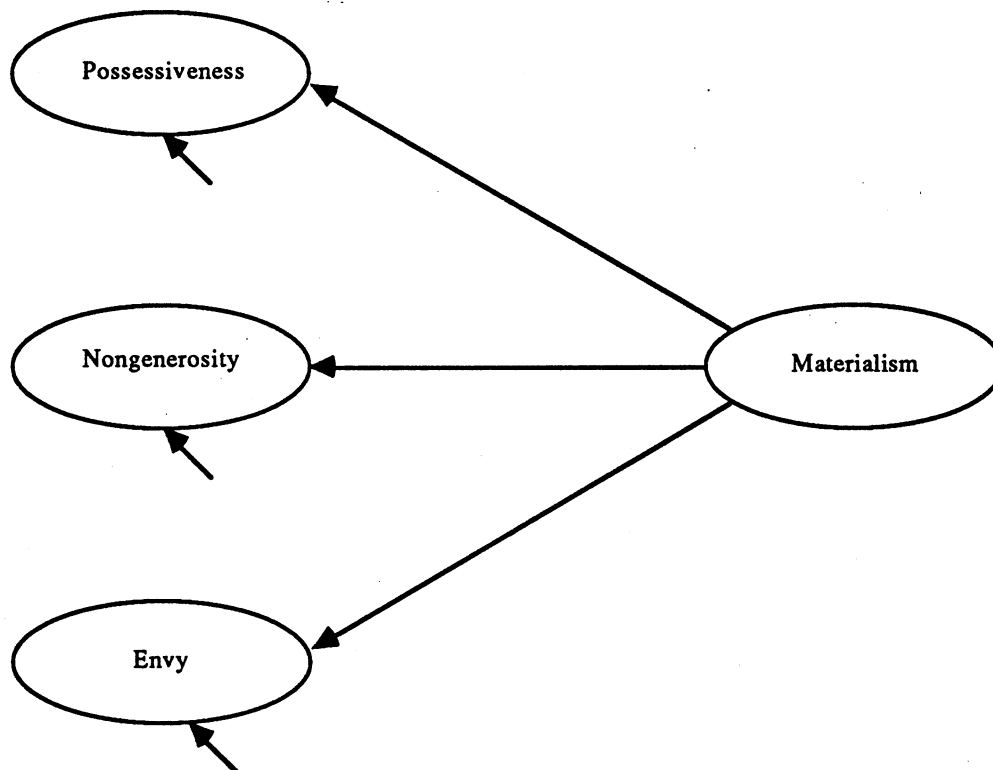
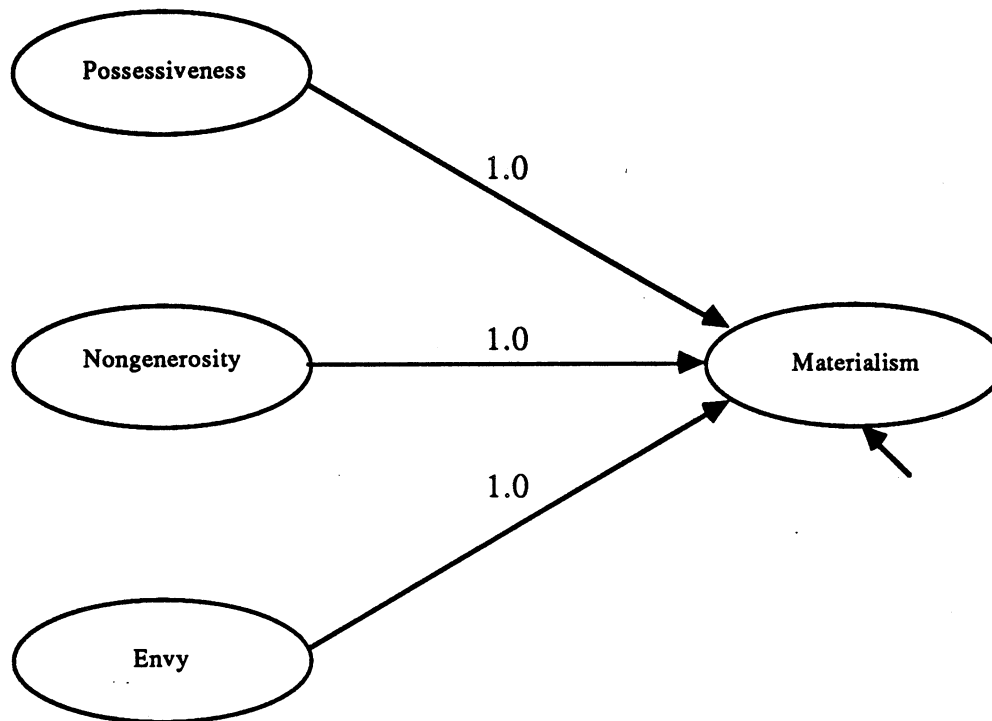


FIGURE 3
Materialism As A Composite Construct



SUMMARY AND CONCLUSION

Materialism has been identified as a potentially important dimension to further the understanding of consumer behavior. A series of articles, principally by Belk, has traced the development of a scale to measure aspects of materialism: possessiveness, nongenerosity, and envy (Belk 1982, 1983, 1984a, 1984b; Belk and Pollay 1985). Belk implies that materialism may be a second-order factor composed of these traits, and possibly other unspecified traits. This research extends the study of the reliability and validity of the materialism construct through the use of confirmatory factor analysis on the implied first-order and second-order factor models as well as a composite model alternative. None of the tested models were acceptable from the point of view of generally accepted goodness of fit indicators, however, the versions using a reduced set of scale items performed markedly better than the full set of scale items. The reduced set was empirically derived from the data and the models tested were not specified as a priori tests so their validity is questionable.

It appears that a three-factor model is a better specification than an aggregated one-factor model, however, continued work is necessary on the scale development. One of the problems suggested by the tests is that a substantial number of the items are not congeneric. Indeed, the removal of a group of items with large modification indices immediately improved the fits of all the models tested. If unidimensional measures are sought, the overall suggestion from these

tests is to continue modification of the subscales possessiveness, nongenerosity and envy so that each of the items constitutes a unidimensional measure of the respective constructs. The various goodness of fit indices suggest that any complex theories based in part on the present operationalization of these materialism subscales will be problematic, at least if they are specified as congeneric structures. As Belk has cautioned, the use of these particular scales continues to be recommended for exploratory research only.

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Applying Conjoint Analysis to Social Advertisements

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ABSTRACT

A pilot field study (N=30) explored the feasibility of using conjoint analysis to examine important attributes of mass-mediated messages. Conjoint analysis is a technique typically used for measuring consumer trade-offs among multi-attributed products or services; however, little research has been conducted as to whether this type of analysis is appropriate for the study of more complex stimuli, like social advertisements. Using a fractional factorial design, 16 advertisements (copy only) promoting recycling were developed, each comprised of three factors: spokesperson, message/setting, and sponsor/format. Results revealed that the message/setting factor was most important to respondents, with a relative importance of 65.4%. Congruency between setting and message was highly valued. Spokesperson was the second most important factor at 31%; however, the most motivating spokesperson varied depending on the audience segmentation strategy used. Sponsor and format was the least important message attribute, with a relative importance of only 4.1%. Overall, conjoint analysis did an adequate job of depicting both individual and group preferences for particular message attributes. These results lead us to conclude that conjoint methodology is an interesting, creative and effective way to gather information not only about traditional products and services, but for designing advertisements as well. Research and managerial implications of extending conjoint analysis to the domain of advertisements are discussed.

BACKGROUND

The purpose of this pilot study was to determine whether conjoint analysis methodology would be useful in the development of television advertisements, an area in which it has received minimal application. Conjoint analysis is a set of techniques typically used for measuring consumer trade-offs among multi-attributed products or services (Green & Srinivasan, 1990). It decomposes overall judgements about a set of complex alternatives such as brand name, price and various product features into utility scales which reflect the relative importance of various attributes (Green & Wind, 1975). This study used social advertisements as stimulus material to provide new ground for the application of conjoint analysis techniques, while investigating conditions under which message elements common to most television advertising influenced motivation to comply with the behavioral request in the advertisement.

THEORY

Social Advertisements

Advertisements for consumer goods and social concerns each constitute a class of messages which compete within and across classes for public attention and support. Social advertisements include those that deal with issues like pollution, population growth, homelessness, AIDS, unemployment, and recycling (Flora & Maibach, 1990). The use of social advertisements in this study heeds the call for attention to what has been called "the dark side of consumer behavior" (Hirschman, 1991), and more generically reflects an aspect of social marketing (Kotler & Roberto, 1989).

In terms of message design considerations, these two classes of messages are similar on some dimensions and different on others (Slater & Flora, in press). The similarities apply to most television advertising; e.g. a short, unsolicited message imbedded in selected programming, choices around what is said, who says it, and the context and manner in which it is said. Ads for social issues and consumer goods often differ in terms of objectives, style of appeal, portrayed benefits, motives of message source, and production value. Some distinctions between these two classes of ads can blur, as in a campaign for beverages built around the product's environmentally sound packaging. In this study, we investigated message elements that can be found in many classes of ads, though the relative utilities of these elements may be a function of the class of ad.

Elements of Advertisements

A first step towards building research-based design strategies for advertisements is to assess the relative influences of various message attributes. The tradition of involvement research in consumer behavior and communication suggests that salient features of advertisements can be conceptualized in terms of central or peripheral cues, which in turn affect the way information is processed and used (e.g. Petty & Cacioppo, 1986).

Research concerned with effects of persuasive messages often divides message attributes into source factors, message factors, and context factors (O'Keefe, 1991). Source factors may include the presenting source (spokesperson), and the sponsoring source. Message factors encompass a multitude of both content and structural characteristics. Context factors can include the viewing situation, type of programming surrounding the ad, and the packaging of the ad. Typically, attention to message content reflects a central route to persuasion, while attention to source and context cues lead to a peripheral route to persuasion (Petty & Cacioppo, 1986).

¹The authors gratefully acknowledge the comments of V. Srinivasan.

Application of Conjoint Analysis to Advertisements

This study conceptualizes the advertisement as the product, and uses conjoint analysis to determine consumers' utilities for various message components. By doing so, we are assuming both theoretically and methodologically that ads consist of reasonably independent and additive components, and that an ad's overall utility can be decomposed and represented by the sum of the utilities for its separate components. We do not claim that the ad elements investigated in this study represent the gestalt of the ad, any more than the factors in any conjoint study represent everything about the product or service under examination. Rather, our intent is to decompose ads by looking at reasonably independent and additive elements which have received previous empirical attention, albeit with different methods, and are critical in terms of message design considerations.

The well-documented role of involvement in message effects (Petty, Cacioppo, & Schumann, 1983; Salmon, 1986) led us to focus on motivation, an involvement construct, as the criterion variable. This reflects our belief that for campaign managers and ad agencies to make maximum use of research concerned with effects of involvement, some research needs to focus on when and how various message elements generate involvement. Thus, we asked respondents to rank the advertisement scenarios in terms of how motivating they were, realizing that ad liking may figure into their judgement processes.

METHODS

Overview

Respondents were told that the Stanford Recycling Project (hypothetical) needed their input to design a motivating television spot aimed at increasing recycling among young adults in the Bay Area. They then rated and ranked sixteen profiles of such spots, which had different combinations of spokesperson, message and setting, sponsor and format. Concepts, procedures, and stimulus materials were thoroughly pretested, and results were cross-validated with self-explicated rankings.

Sample

A total of thirty Stanford graduate and undergraduate students participated in this study. Demographically, our sample was 57% male, 63% graduate students, and 87% single. Additionally, our sample represented 14 majors, which we collapsed into two categories known at Stanford University as "fuzzies" and "techies". "Fuzzies" (53%) are students who are primarily liberal arts majors, whereas "techies" (40%) are students who are classified as science or engineering majors (7% were undecided).

Experimental Design

We utilized a three factor fractional factorial design (Addelman, 1962) with four levels of each factor. Source, message, and context factors were represented.

Two source factors were manipulated; the spokesperson and the ad sponsor. Spokespersons were chosen to be highly credible or not, and highly likable or not. Ad sponsor was intended to represent for-profit motives or public service motives. Ad sponsor was used in combination with the format of the message, a context factor, that is whether it was described as an advertisement or public service announcement. Selection of message factors drew on framing principles (Tversky & Kahneman, 1986) by using a positive message (gain), or mathematically equivalent negative message (loss), in combination with a positive or negative setting. The positive and negative settings were intended to qualitatively represent a gain and loss respectively. This led to the construction of 16 advertisement profiles, as follows:

FACTOR	LEVELS
Spokesperson	Bill Cosby, actor and philanthropist William K. Reilly, head of EPA Bo Jackson, professional athlete Ron Smith, Bay Area graduate student
Message and setting	Positive message, pristine lake Positive message, dirty landfill Negative message, pristine lake Negative message, dirty landfill
Sponsor and format	Danville Corporation, PSA Danville Corporation, advertisement Recycling Cooperative, PSA Recycling Cooperative, advertisement

A complete description of the messages and settings can be found in Table 1.

The message/setting factor and the sponsor/format factor are both combinations of two two-level factors. Making each into a four level factor allowed us to examine interactions visually, and with minimum constraints in our model, as well as avoiding the inflation of relative factor importance due to unequal number of levels. A sample profile is illustrated below.

Spokesperson: Bill Cosby, Entertainer & Philanthropist

Setting: Beautiful, pristine mountain lake with gentle breeze blowing.

Message: (with disdain) This year alone, two-thirds of our glass, aluminum, and newspapers were dumped in landfills. We are destroying our planet now and it may not survive past this generation. Save our planet... recycle!

This advertisement is sponsored by the Danville Corporation

Respondents first read a cover sheet which briefly described the scenario of our recycling message

TABLE 1
Setting and Message Descriptions

Positive Setting/Positive Message

Beautiful, pristine mountain lake with gentle breeze blowing.

(with enthusiasm) This year alone, one-third of our glass, aluminum, and newspapers were successfully recycled. We are celebrating our planet now so that future generations may thrive on it. Celebrate our planet...recycle!

Positive Setting/Negative Message

Beautiful, pristine mountain lake with gentle breeze blowing.

(with disdain) This year alone, two-thirds of our glass, aluminum, and newspapers were dumped in landfills. We are destroying our planet now and it may not survive past the next generation. Save our planet...recycle!

Negative Setting/Positive Message

Dirty, overflowing city landfill with trash blowing everywhere.

(with enthusiasm) This year alone, one-third of our glass, aluminum, and newspapers were successfully recycled. We are celebrating our planet now so that future generations may thrive on it. Celebrate our planet...recycle!

Negative Setting/Negative Message

Dirty, overflowing city landfill with trash blowing everywhere.

(with disdain) This year alone, two-thirds of our glass, aluminum, and newspapers were dumped in landfills. We are destroying our planet now and it may not survive past the next generation. Save our planet...recycle!

design project, and their task. Because the profiles included a substantial amount of information, direct rankings of sixteen profiles would have been too difficult. Therefore, respondents first rated the cards on a seven point Likert scale (1=not at all motivating to 7=extremely motivating), and then ranked each stack of cards.

Respondents were given four practice cards to rate and rank, before working with the actual profiles. After completing the primary task, respondents completed a questionnaire with items on demographics, recycling involvement and behavior, and television use. Lastly, respondents provided self-explicated ratings of factor importance (1=not at all important to 7=extremely important) for use as cross-validation data.

Pretesting

Because application of conjoint analysis to messages is relatively unexplored, we conducted three levels of pretesting:

- 1) During the concept development phase of this project, we ran a focus group whose feedback led us to include both positive and negative messages and settings, and suggested certain levels for our other factors.
- 2) 21 students rated 20 potential spokespersons on the dimensions of credibility and likability, which led us to select one spokesperson for each possible combination of high or low credibility crossed with high or low likability.

- 3) Six pretest subjects went through our whole experiment, which allowed us to identify procedural and methodological problems.

RESULTS

Validity and Reliability of Data

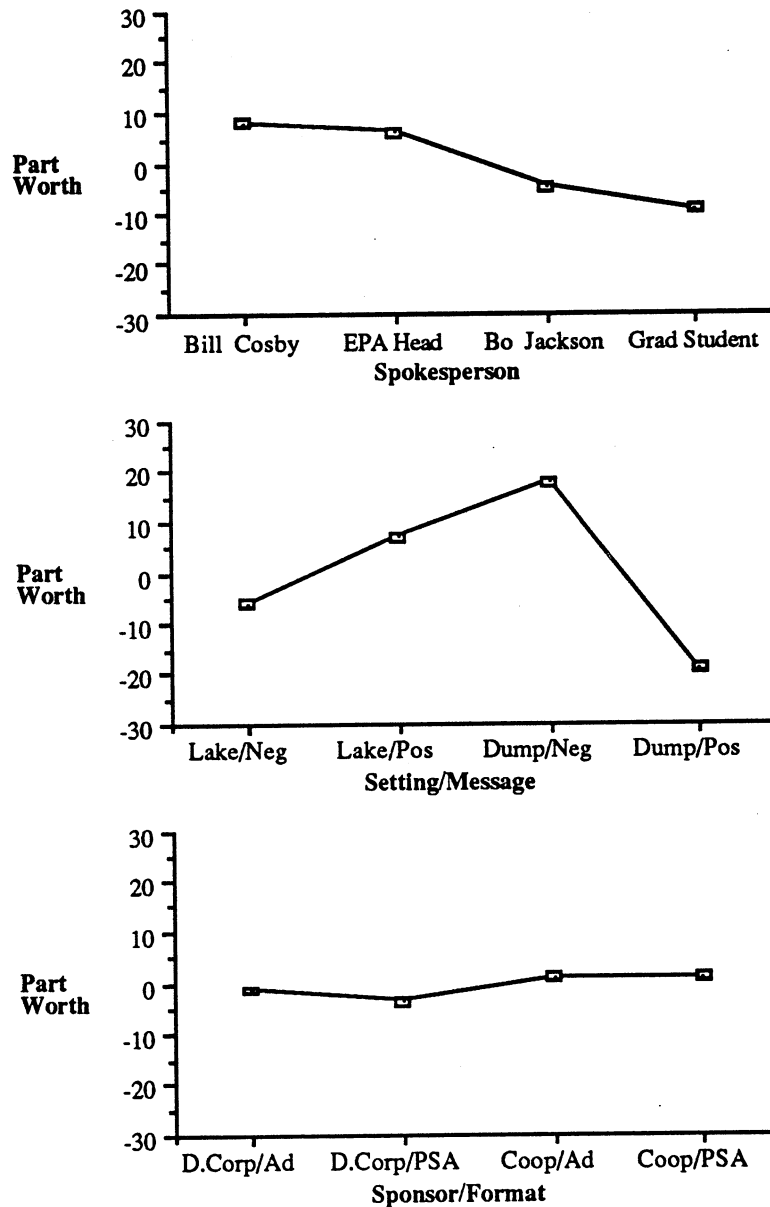
Rank order results were analyzed using the LINMAP program (Srinivasan & Shocker, 1973). Overall, validity of results across respondents was fairly consistent, with all respondents having less than 10% of pairs violated. Multiple regression analysis was used to validate the LINMAP analysis of the ranked data, and to compare results obtained from the rankings data and ratings data. In both cases, regression analysis and LINMAP results were consistent. Self-explicated ratings of factor importance corroborated the relative importance percentages obtained through LINMAP.

Aggregate Results

Results for the average part worth utilities for the entire sample are shown in Figure 1. The combination setting/message factor was clearly the most important factor across respondents with a relative importance of 65%. Messages that had congruent setting and message were the most motivating. Respondents most preferred the negative setting/negative message combination, followed by the positive setting/positive message combination. Respondents least preferred the negative setting/positive message combination.

Spokesperson was the next most important attribute with a relative importance of 31%. Bill

FIGURE 1
Average Part Worths by Factor



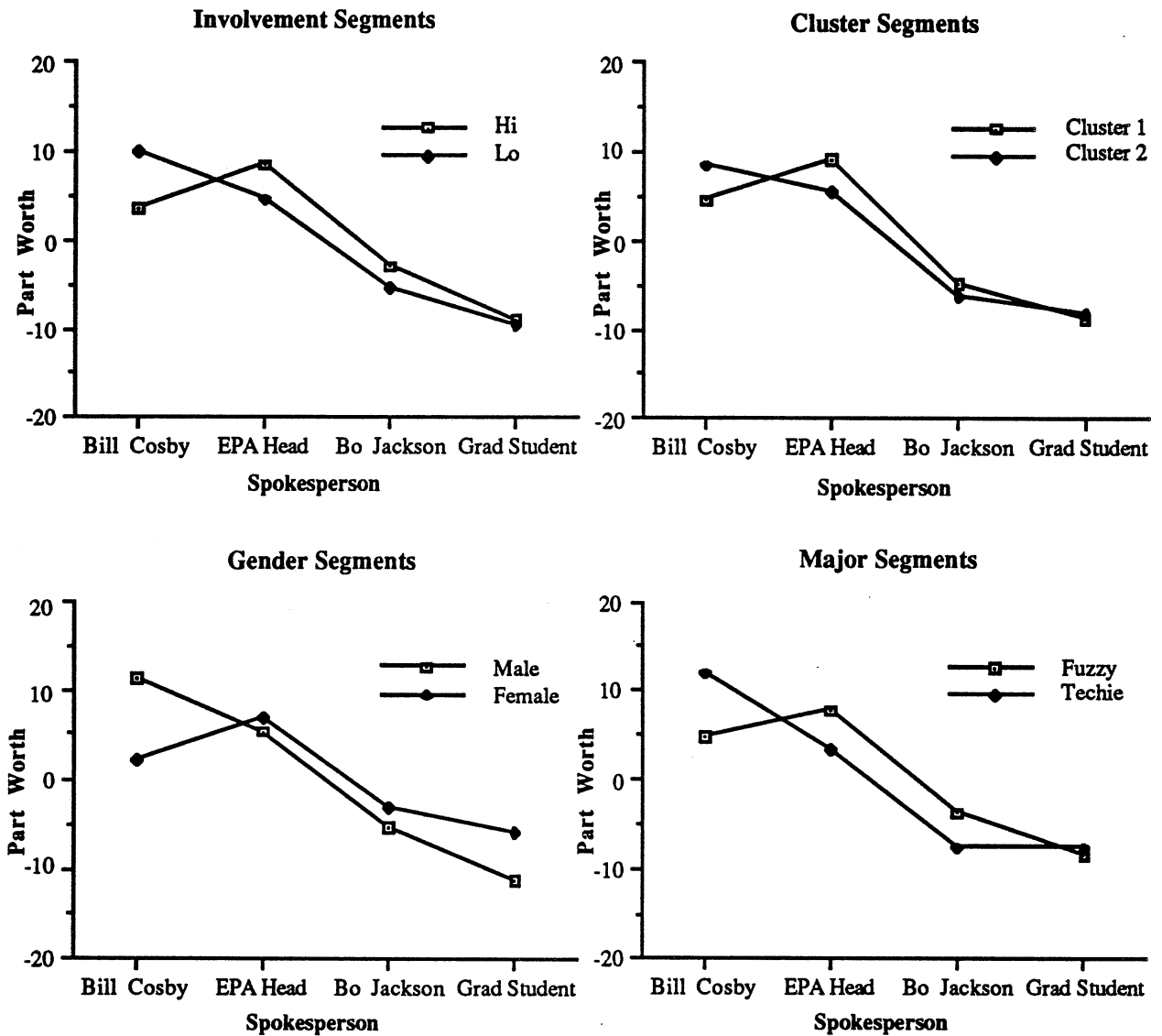
Cosby was the most preferred spokesperson, followed by William K. Reilly, head of the Environmental Protection Agency (EPA). Bo Jackson came in third; thus Bo may be more adept at promoting "sneakers", than motivating people to recycle. Ron Smith, a hypothetical Bay Area graduate student, was the least motivating spokesperson.

Not surprisingly, sponsor/format came in as least important, with a relative importance of 4.1%. During the debriefing phase of our study, many respondents stated that they either failed to really notice the sponsor/format, or that it only played a role when they went back and ranked profiles within a

stack. The first attribution suggests the need for counterbalancing order of factors. However, we purposely put sponsor/format at the bottom of the profile, as these features are typically not explicitly germane to most social advertisements.

The following analyses illustrate that the patterns described above generally held up for the message/setting factor and the spokesperson factor, across segments for all four segmentation strategies. The lack of consistent patterns on the sponsor/ format factor is interesting in its own right. These results are organized by factor in Figures 2 - 4. Figure 5 displays

FIGURE 2
Segmentation Analyses by Part Worths: Spokesperson Factor



relative factor importance across segmentation strategies.

Demographic and Psychographic Segmentation Analyses

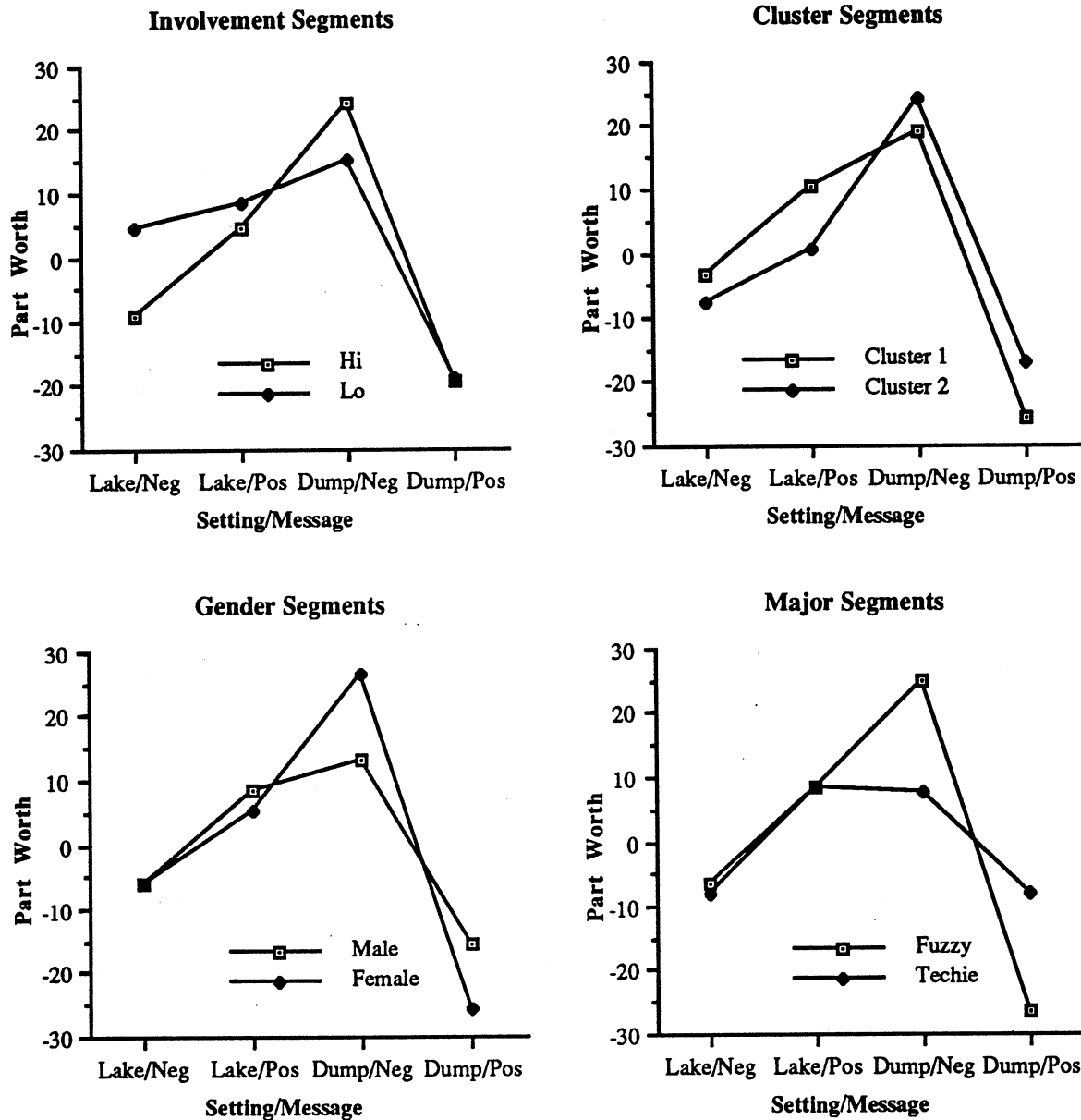
Segmentation analysis was performed to examine whether meaningful differences between groups existed for each factor and level. Our findings revealed the following pertinent information.

- 1) **Males versus Females:** Results from the gender segments indicated that males found the spokesperson to be more important than did females (42% vs 19%). Also, males chose Bill Cosby as their preferred

spokesperson, whereas females selected William K. Reilly.

- 2) **"Fuzzies" versus "Techies":** Techies were more sensitive to spokesperson than were fuzzies (48% vs 22%). Fuzzies preferred William K. Reilly and techies preferred Bill Cosby. Fuzzies were more sensitive to the setting/message factor than techies (71% vs 40%). Also, fuzzies most preferred the negative setting/message combination, whereas techies equally preferred the two congruent setting/message duos.
- 3) **High versus Low Involvement:** Highly involved respondents were those who

FIGURE 3
Segmentation Analyses by Part Worths: Setting/Message Factor



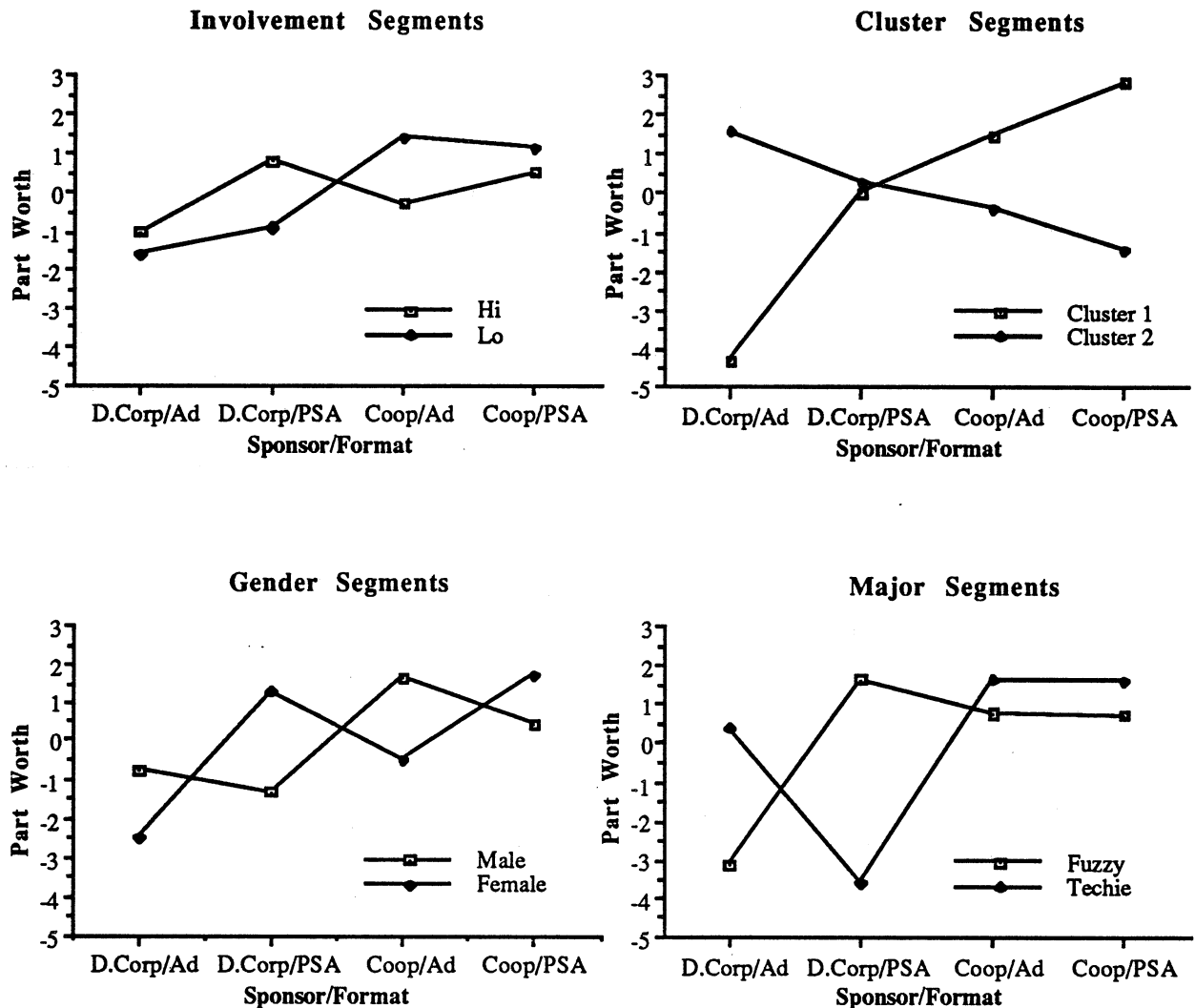
reported extreme concern about recycling efforts. Their most preferred factor was setting/message (69%) with less involved respondents finding this factor a bit less motivating (60%). Less involved respondents were more sensitive to the spokesperson (35% vs. 28%), with the spokesperson of choice being Bill Cosby. William K. Reilly was most preferred by the high involvement group.

Segmentation Based on Cluster Analysis
Respondents were also segmented empirically, based on results from cluster analysis. Two, three, and

four cluster solutions were examined. We selected the three cluster solution because its distinctions were richer and more interpretable. However, upon further review, we discarded the third of the three segments because of the lack of cohesion among the three cases which comprised the cluster, and retained the two larger segments for final analysis.

Key differences between the segments were: The sponsor/format factor was approximately twice as important to Segment 1 as to Segment 2, with Segment 1 preferring the Recycling Cooperative as sponsor, and Segment 2 preferring the Danville Corporation. Preference for the negative

FIGURE 4
Segmentation Analyses by Part Worths: Sponsor/Format Factor



setting/message combination was much stronger for Segment 2 versus Segment 1. Segment 1 found Bill Cosby most preferable, while Segment 2 selected William K. Reilly.

To help us better understand the two segments derived from cluster analysis, regression analysis was used, with demographics, involvement and television use as predictors of group membership. (This technique is mathematically equivalent to discriminant analysis, when the criterion variable is two-category nominal). Segment 1 was characterized by respondents who were undergraduates ($p > .01$), fuzzies ($p = .02$), and less involved ($p = .11$), while Segment 2 tended to be more involved, graduate students, and techies.

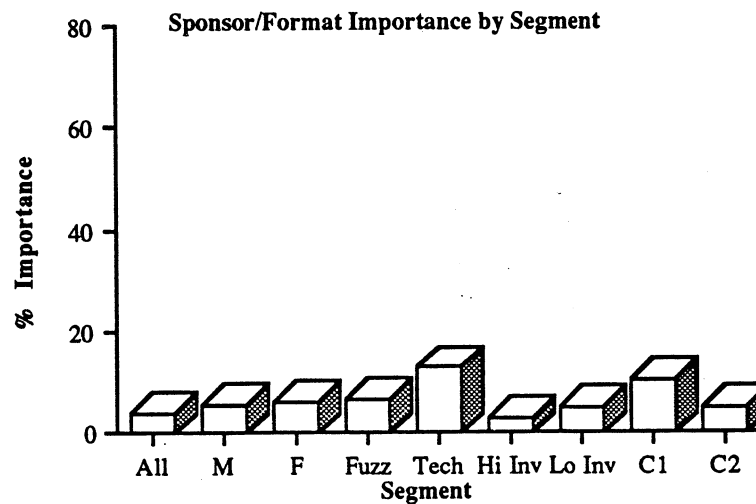
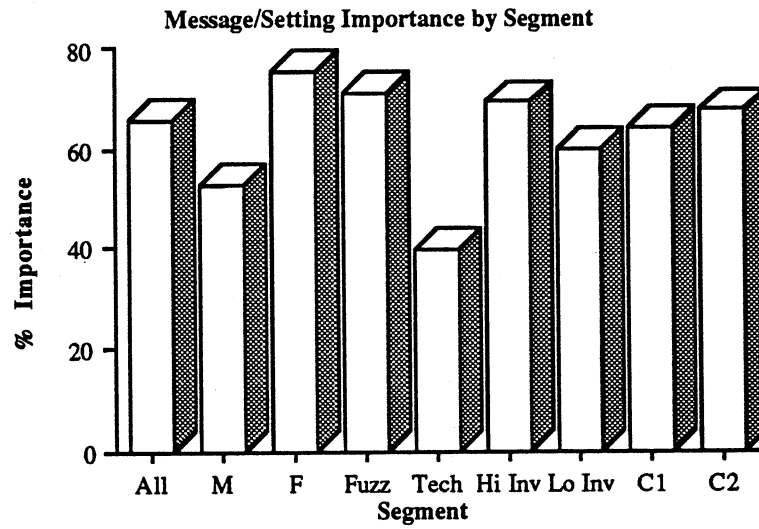
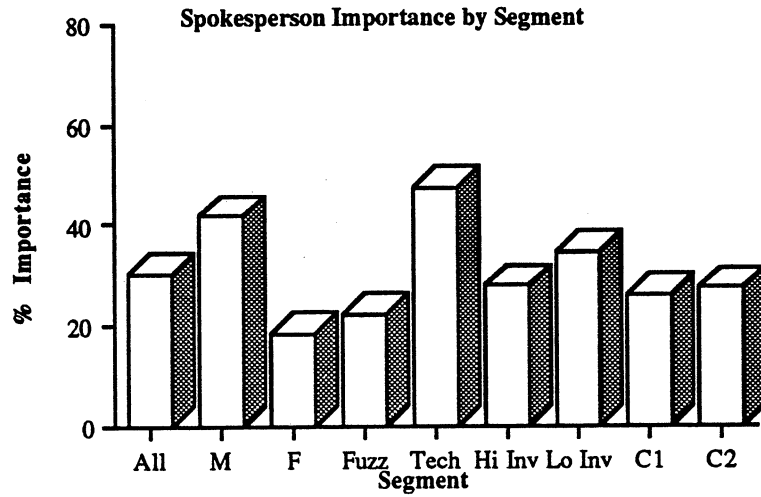
DISCUSSION

Summary

This study was an attempt to assess the feasibility of using conjoint analysis to examine complex stimuli such as social advertisements. Overall, subjects reacted positively to the conjoint task and had little trouble understanding or completing the task. Our results revealed that both individual and group part-worth functions adequately depicted individual and group preferences. For example, although both males and females believed the setting/message combination was the most important factor, a high percentage of males reported that the spokesperson was also fairly important.

These results have important implications for message design issues, like spokesperson importance and selection, in relation to audience segmentation strategies. Individuals who reported being highly

FIGURE 5
% Importance by Segments



involved in the recycling issue, were less likely to care about the spokesperson than individuals who reported low involvement in the issue, as is consistent with the elaboration likelihood model (Petty & Cacioppo, 1986). Furthermore, the spokesperson of choice for highly involved individuals was the little known expert William K. Reilly, compared to the popular Bill Cosby for the low involvement group.

Finally, although it is clear that the setting and tone of a message plays an important role in how motivating it is perceived to be, it seems that other factors, like spokesperson, and to a smaller extent sponsor and format, can either contribute to or detract from the message, depending on the audience being targeted.

Both the results gathered in this study and our own intuitive insights indicate that conjoint analysis is an interesting, creative, and effective way to gather information which can aid the development of advertised messages. If the technique is applicable in the more abstract domain of social issues, it seems likely that it will be at least as useful for advertisements for consumer products.

In the future, we hope to develop actual messages based on results of conjoint analysis and test them with audiences similar to the research participants. This will allow us to determine the conditions under which consumers can essentially design their own messages, which we believe to be an important extension of the fundamental marketing concept of consumer sovereignty (Blaug, 1990).

Limitations

Our extension of conjoint to a new domain of inquiry, mass media messages, is limited by a number of methodological considerations. The validity of this study rests on our presumption that advertisements can be decomposed into reasonably independent constituent parts in order to justify use of an additive main effects model, as well as the notion that individuals can predict their response to those constituent parts (see Kahneman & Snell, 1990 for a discussion of predicting utility). However, we do not presume that these processes would remain valid under all conditions, e.g. investigating preferences for structural features like cuts and zooms through stimulus material consisting of written copy only.

The use of written copy only here accurately reflects our preference for experimental control over true message complexity at this stage in the game. We would expect this preference to gradually shift if the marriage of conjoint to messages garners further attention.

Finally, the lack of a holdout sample, lack of covariates in group level analyses, and only one order of factor presentation limit validity and generalizability, and should be addressed in subsequent work.

Recommendations

Recommendations for future research applying conjoint analysis techniques to the study of messages in general, are as follows:

- 1) Larger scale studies should be implemented in order to gather more reliable and statistically significant data.
- 2) Conjoint techniques should be applied to other advertising design issues, both in the domains of social issues and consumer goods, in order to more fully test the applicability of this research methodology to mass media messages.
- 3) In further testing of this technique on advertisements, it may be worthwhile to actually develop storyboards or audio-visual profiles that consumers could actually view. This way, consumer preferences would not need to be inferred from evaluations of written descriptions of messages, thus leading to more accurate and meaningful results.
- 4) Before any commercial study of this type is undertaken, the actual cost/benefit of the study should be accurately assessed to determine if the initial outlay of resources is worth the time, energy and money. Agreeing on what constitutes "benefit" should be an early consideration.

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Confirmatory Factor Analysis of a Country-Of-Origin Scale: Initial Results

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ABSTRACT

The globalization of markets since the 80's has enhanced the urgency of research on the impact of country-of-origin image (CO) in cross-national consumer behavior. A rich harvest of such studies has consequently been generated. Prior weaknesses in such studies, such as poor handling of a complex construct, single cue studies and lack of methodological rigor, are being addressed. This study is in the genre of such research where the nature and dimensionality of the CO construct is examined using confirmatory factor analysis. Findings suggest that the theorized structure needs modification.

INTRODUCTION

Critical reviews on country-of-origin (CO) studies have identified several major inadequacies which have thus far prevented a definitive identification of the precise nature of the impact of CO in influencing purchase behavior. Among the factors which have been suggested as contributing to this slow progress are included complexity of the construct, the presence of other cues, and methodological issues (Bilkey and Nes 1982; Hong and Wyer 1989; Baughn and Yaprak 1991). Baughn and Yaprak (1991), for example, called for the increased use of multiple cues (such as CO, brand name and price instead of just CO); use of both intrinsic (taste, design, and performance) and extrinsic (price, brand name, warranties, CO) cues; use of "real" products, "typical" users, and "true" characteristic content; in addition to the strengthening of methodological rigor. Hong and Wyer (1989) exhorted their colleagues to include cognitive mechanisms which mediate CO effects on product evaluations, both at the theoretical and empirical levels. Ozsomer and Cavusgil (1991), after a thoroughly exhaustive review of CO effects on product evaluations called for more research in the area. They concluded "although much has been said and done on the relationship between CO and product familiarity, conflicting results call for more research." A basic question that still needs focusing on is conceptual and methodological. How should the CO construct be operationalized into a methodologically rigorous CO scale? How complex is the construct? In other words, what is its dimensionality?

The focus of this study is a rigorous examination of the nature of the country-of-origin construct and a confirmation of the scales that have been developed to measure it. We do this by subjecting a scale developed to measure country image (Parameswaran and Yaprak 1987) to the confirmatory factor model whose "ability to test specific structures suggested by substantive theory gives it a major advantage over the exploratory factor model (Long 1983)." Thus, it is hoped that we may begin to unravel the complexity of the construct through methodological rigor.

THE COUNTRY-OF-ORIGIN CONSTRUCT

The country-of-origin construct has been a gradually evolving construct which was conceived from the idea that people attached stereotypical "made-in" perceptions to products from specific countries and which influenced purchase and consumption behaviors in multinational markets (Rierson 1967; Nagashima 1970, 1977; Schooler 1971; Anderson and Cunningham 1972; Lillis and Narayana 1974). A single "made-in" indicant of country-of-origin, serving as an extrinsic cue (Thorelli, Lin, and Ye 1989), led to the hypothesis that all factors impinging on the marketing environment had a potential of impacting consumption behavior (Nagashima 1970). A plethora of empirical studies determined that several environmental factors had negligible to minimal effect on product perceptions leading to the current theory on the determinants of country image. The gradual evolution of the country-of-origin image construct and its attendant scales is unlike scale development in marketing and consumer research in the 1980's in that psychometric rigor was not a prime consideration in its evolution (for an example of a recent scale development, see: Shimp and Sharma 1987). Subjecting the CO construct to a rigorous evaluation, the purpose of this paper, is therefore a valuable exercise.

Contemporary Theory Underlying the Country-Of-Origin Construct

As mentioned above, the impact of CO information on consumer purchase behavior has inspired a large body of literature (for excellent reviews, see Cavusgil and Nevin 1981; Bilkey and Nes 1982; and Baughn and Yaprak 1991). Nagashima (1970) has been credited with first defining country image as "the picture, the representation, the stereotype that businessmen and consumers attach to products of a specific country. This image is created by such variables as representative products, national characteristics, economic and political background, history and tradition." Subsequent empirical researches (refer to summaries in Ozsomer and Cavusgil 1991; and Baughn and Yaprak 1991) have led to our contemporary understanding of the phenomenon. The impact of the CO cue on consumption behavior has been related to producing country characteristics. For example, it has been demonstrated that consumers' willingness to purchase products is related to the economic, political, and cultural characteristics of the product's country-of-origin. Papadopoulos, Heslop and Bamossy (1989) summarized this notion by stating that the perceptions of sourcing countries are impacted by cognition about, and affect and conative orientation toward, that country's peoples. CO effects have also been related to perceptions about the overall product

offerings of a particular sourcing country. Papadopoulos, et. al. (1989) noted that a consumer's image of a people with whom he/she is not familiar may well be formed upon the basis of knowledge about that people's capacity for producing quality products in general -- and that perception impacted his/her evaluation of specific products from that country. As an example, they showed a high level of affect toward the Japanese people and specific Japanese products even when few non-Japanese consumers were familiar with Japan and its peoples. Yaprak and Parameswaran (1986) called the former component the general country attribute (GCA) and the latter the general product attribute (GPA). Bearing Bilkey and Nes's (1982) criticism of single cue studies and their drawbacks, Yaprak and Parameswaran (1986) hypothesized that purchase intentions and behavior are impacted by CO effects (GCA and GPA) as well as by specific product attributes (including product-, marketing-, and firm-goodwill related attributes [SPA]).

The relative importance of country and general product image (GCA, GPA) cues in shaping purchase behavior is not entirely clear based on past research. Johansson, Douglas, and Nonaka (1985) claimed that the CO effect, as a result of single cue studies, may be overstated and that its effects may be contaminated by the effect of other cues. Heslop, Liefeld and Wall (1987) stated that the CO effect gained in strength with product complexity, increased risk, and decreased purchase frequency. Bilkey and Nes (1982) reported that a negative CO image was not overcome by a well known brand name.

MEASUREMENT METHODOLOGY

The Measuring Instrument

An extensive literature search was conducted in the design of the questionnaire that was used in this study. The scales which comprise this questionnaire are modifications of the scales used by Yaprak and collaborators (Yaprak 1978; Yaprak and Parameswaran 1986; Parameswaran and Yaprak 1987). Parts of that scale have been used in a recent psychometric evaluation of the CETSCALE (Netemeyer, Durvasula, and Lichtenstein 1991). A market country's consumers' attitudes towards a source country (in this case, Germany) were measured using twelve statements that are commonly found in the country-of-origin literature. Their attitudes toward the general nature of products from that country were measured using eighteen statements -- these statements again being those that are commonly cited in the CO literature. Their perceptions in regard to specific product related cues were measured using 10 relevant automobile attributes. The specific make of automobile that the survey respondents were evaluating was the German car, the Volkswagen Jetta. The above predictor variables -- GCAs, GPAs, and SPAs -- were measured on a 10-point scale where '1' represented that the statement was 'not at all appropriate' while '10' represented that it was 'most appropriate.' The dependent variable, their likelihood of purchasing a Volkswagen Jetta, was operationalized as a 10 point

likelihood scale where '1' represented 'not at all likely' and 10 represented 'extremely likely' to purchase that make of car. A list of indicators is presented in Table 1.

Sampling and Data Collection Procedures

Data were gathered from the adult population of a large midwestern metropolitan area which is highly heterogeneous in terms of ethnic composition. These people represented the then current and potential users of automobiles -- both domestic and foreign. In order to adequately capture the ethnic flavor of the metropolitan area, relevant ethnic associations were contacted, membership lists acquired and representative samples selected therefrom. Blank questionnaires were hand delivered to the selected respondents and completed questionnaires were collected within the next two weeks. In order to achieve a high response rate, the president/committee members of these associations were approached and requested to encourage their members to participate. A total of 678 completed and useable questionnaires were returned from the 1025 that were originally placed, a 66% response rate.

ANALYTICAL METHODOLOGY

A covariance matrix based on the data collected from the 678 respondents was analyzed in order to find out whether the scale developed for the measurement of the CO (GCA, GPA, and SPA) consisted of three sets of unidimensional and reliable measures of these three constructs. In order to assess the unidimensionality of the CO scale used in this research, confirmatory factor analysis (CFA) was employed. CFA has been recognized to be a superior approach for the analysis of unidimensionality vis-a-vis other often-used approaches such as item-total correlations, exploratory factor analysis (EFA), and coefficient alpha (Gerbing and Anderson 1988; Anderson, Gerbing, and Hunter 1987). Unlike EFA, CFA is a hypothesis testing procedure in which an *a priori* model is tested for goodness-of-fit against a data set (Bagozzi 1983). Thus, it can be used to determine whether the collected data supports the *a priori* categorization of the indicators into (unidimensional) measures of the three CO constructs.

A second objective of the statistical analysis presented in this paper was to respecify the measurement model (if necessary) through an understanding of the dimensionality of the three concepts of interest. CFA also possesses diagnostic capabilities which assist in the identification of model misspecification (Bagozzi 1983). It can be used in a more exploratory sense by progressively respecifying and relaxing constraints (as dictated by theory) beginning with a more restricted initial model.

The process of analysis was based on the updated paradigm for scale development proposed by Gerbing and Anderson (1988). The analysis consisted of four steps: (1) the specification of the *a priori* model, (2) the examination of model misspecification, (3) the theory-guided respecification of the *a priori* model resulting in the adjusted model, and (4) comparison of the *a priori* model with the adjusted

TABLE 1
List of Indicators

Indicator	Label
<i>GCA (General Country Attributes)</i>	
1. Friendly & likeable	C1
2. Artistic & creative	C2
3. Well educated	C3
4. Hard working	C4
5. Technical education	C5
6. Achieving high standards	C6
7. Raised standard of living	C7
8. Technical skills	C8
9. Similar political views	C9
10. Economically similar	C10
11. Culturally similar	C11
12. Participates in international affairs	C12
<i>GPA (General Product Attributes)</i>	
13. Unreasonably expensive	P1
14. Luxury products	P2
15. Meticulous workmanship	P3
16. Imitations	P4
17. Known mainly for industrial products	P5
18. Sold in many countries	P6
19. Not attractive	P7
20. Intensely advertised	P8
21. Frequent repairs	P9
22. Wide range of models	P10
23. Long lasting	P11
24. Advertising informative	P12
25. Difficult to service	P13
26. Cheaply put together	P14
27. High technology	P15
28. Good value	P16
29. Easily available	P17
30. Prestigious products	P18
<i>SPA (Specific Product Attributes): Car</i>	
31. Good fuel economy	S1
32. Exterior styling attractive	S2
33. Workmanship good	S3
34. Handles well	S4
35. Little maintenance	S5
36. Very comfortable	S6
37. Difficult to get parts	S7
38. Quality service	S8
39. Made to last	S9
40. Overall excellent	S10

model. The refined measurement model resulting from the analysis is expected to be more useful than current measurement models used for the study of county-of-origin effects.

CFA was applied to the collected data using two complementary approaches: (a) the full information method wherein all the parameters of the measurement model are estimated simultaneously, and (b) a limited information method which uses only the covariances of the variables in any one equation of the model to estimate the parameters in the equation (Anderson and Gerbing 1982). The former approach is more

attractive from a theoretical perspective since it explicitly recognizes all the relationships in a measurement model in a single analysis. It also generates more efficient statistics in large samples and provides more indicators of fit. The latter approach estimates the parameters of each factor separately and independently. In the presence of model misspecification this is a strength since poor specification of one factor does not affect the estimation of parameters in another (Anderson and Gerbing 1982).

Maximum likelihood estimation procedures available in the statistical package LISREL 7 (Joreskog and Sorbom 1989) were used for the application of the full information method. The covariances in the input data set were tested against the covariances expected as the result of the *a priori* specified model. When the parameters of the model are estimated through the method of maximum likelihood (an option in LISREL), the differences between the relationships reflected in the data and those specified by theory are tested using a chi-square statistic. The chi-square statistic tests the overall fit of the model to data, smaller values of the statistic typically representing better fit. The measurement model was also evaluated using other indicators of global goodness-of-fit such as the Adjusted Goodness of Fit Index (AGFI) and Root Mean Square Residual (RMSR) and measures of fit of the internal structure of the model (such as squared multiple correlations, modification indices, and standardized residuals).

Oblique centroid multiple groups factor analysis (MGRP) available in the statistical package ITAN (Gerbing and Hunter 1988) was used for the application of the limited information method. The unidimensionality of the measurement model was assessed through the evaluation of internal and external consistencies (two statistical criteria for unidimensionality) using the procedure recommended by Hunter and Gerbing (1982) and Anderson and Gerbing (1982). The output of MGRP analysis of a correlation matrix was evaluated (a) for internal consistency through the examination of item-factor loadings and the pattern of inter-item correlations, and (b) for external consistency by examining similarity coefficients. Further, measure reliability was assessed by evaluating the values of standard score coefficient alpha computed by ITAN.

The process of model respecification described in this paper was strongly driven by theory. In other words, model respecification based purely on data (and possessing no theoretical rationale) was avoided. Thus, while improvement in fit was sought through respecification, the objective of this process was to develop an improved measurement model which was theoretically defensible and which could be useful for the measurement of CO effects and not to just to develop a perfect-fitting model.

According to Anderson and Gerbing (1988) there are four basic ways to respecify indicators: by relating the indicator to a different factor, by deleting the indicator from the model, by relating the indicator to multiple factors, or by using correlated measurement errors. They recommend the use of the first two ways since "these approaches preserve the potential to have unidimensional measurement, without obscuring the meaning of the estimated underlying constructs." Keeping the objectives of this research in sight, improvement of fit through the linking of indicators to multiple factors or the correlation of error terms was consciously avoided. Although the correlation of error terms would certainly have improved fit, such a procedure would have made the resulting model less elegant from a theoretical perspective without any significant gain in its

substantive interpretability (Bagozzi 1983, Gerbing and Anderson 1984). Improvement in fit was achieved in this research through the respecification of factors and through the deletion of poor indicators.

Model 1: The Initial Model

The initial model (Figure 1) consisted of three constructs (unobservable variables): GCA, GPA, and SPA, and 40 indicators (observable variables). GCA was measured using 12 indicators, GPA by 18 indicators, and SPA through 10 indicators. The indicators of goodness-of-fit obtained through the analysis of the model using LISREL 7 indicated a very poor fit (Table 2). The poor fit was also reflected in large standardized residuals and modification indices. Among the within-factor residuals the largest had the value of 17.78, and 44.9 percent exceeded 2.58, the cut-off point for good fit (Bagozzi and Yi 1988). Among the within factor modification indices, the largest had a value of 229.26 and 52.08 percent exceeded the value of 3.84, a cut-off point recommended by Bagozzi and Yi (1988). While the composite reliability indicated by the total coefficient of determination was found to be high (0.999), 22 out of the 40 items possessed squared multiple correlations below 0.5, indicating low individual item reliabilities.

Similarly, the inter-item correlations generated by ITAN indicated the three constructs were being measured using indicators which lacked internal consistency. The indicator sets measuring GCA and GPA seemed to include correlated sub-clusters of indicators. The average correlation of an item with its prespecified underlying factor (item-factor correlation) was 0.555. Many items possessed very low correlations with the factors they were supposed to measure. In fact, two of the indicators loaded more highly on factors which they were not selected to measure, than on those they were selected for.

The values of the standard score coefficient alpha for the sets of measures of GCA, GPA, and SPA were quite high (GCA: 0.829, GPA: 0.847, SPA: 0.763) given the observed degree of misspecification. However, this may partly be the result of the large number of indicators in each set since the formula used for the computation of coefficient alpha is influenced by the number of indicators that are included. It is also important to recognize that a high value of coefficient alpha does not reflect unidimensionality (Gerbing and Anderson 1988). In fact, a high alpha in the relative absence of unidimensionality is not an indication of measure reliability since unidimensionality is a prerequisite for reliability.

Model 2: The Intermediate Model

Through a close examination of indicators of poor fit and through an iterative process of progressive respecification and reexamination of results (but without deleting any indicator), the intermediate model (Model 2) was developed. The indicators of GCA were reclustered into two groups, one consisting of indicators (C1 to C8) which measured general attributes of the country and its people (GCA1) and the other consisting of indicators

FIGURE 1
The Initial Measurement Model (Model 1)

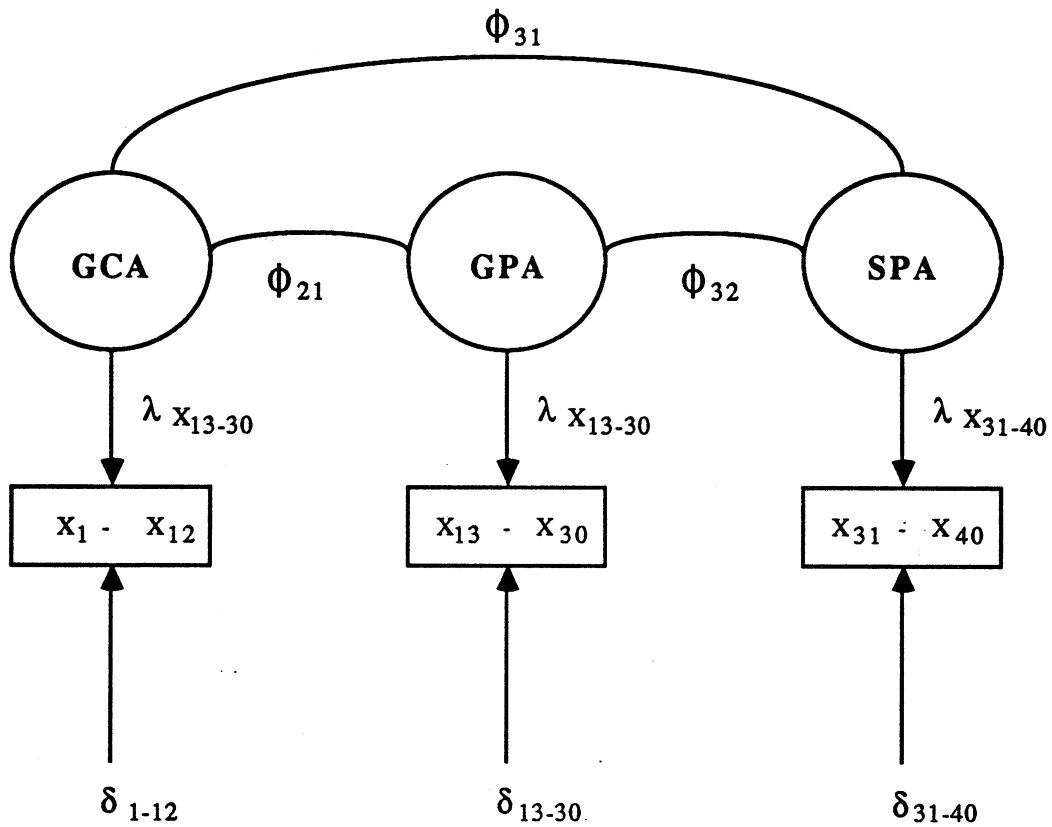


TABLE 2
Goodness-of-fit Measures (LISREL)

	Model 0	Model 1	Model 2	Model 3
Chi-square	8704.8	5769.56	2669.86	646.71
Degrees of freedom	740	736	730	237
p	0.000	0.000	0.000	0.000
GFI	0.491	0.582	0.832	0.928
AGFI	0.436	0.534	0.811	0.909
RMSR	30.657	2.414	2.256	1.615

(C9 to C12) which measured interaction of the country being evaluated with the respondent's country or other countries (GCA2).

Similarly, GPA was reclustered into two groups, one of which (GPA1) included all the indicators (P1, P2, P4, P5, P7, P9, P13, P14) which measured negative product attributes (poor service, poor quality, etc.), and the other (GPA2) included all the indicators (P3, P6, P8, P10, P11, P12, P15, P16, P17, P18) which measured positive attributes. The presence of two such dimensions was very clear from the results of the analysis of Model 1, although the polarity of the responses to negative attributes had been reversed prior to statistical analysis through appropriate data transformation so that higher values reflected superior evaluation. No change was made to the specification of SPA.

The respecification of GCA and GPA in Model 2 resulted in a considerable drop in chi-square and the other indicators of goodness-of-fit (Table 2) vis-a-vis Model 1 indicating a much improved fit of the model to the data, although the chi-square by itself indicated a lack of fit. This finding was also reflected in the standardized residuals and modification indices generated by LISREL and the inter-item correlations and the item-factor loadings computed by ITAN. The average item-factor loading increased to 0.696. The improvement in the measurement model was also reflected in the values of standard score coefficient alpha (GCA1: 0.853, GCA2: 0.803, GPA1:0.934, GPA2: 0.871).

Model 3: The Adjusted Model

An examination of the results of LISREL and ITAN analysis of the intermediate model indicated that many of the indicators of the intermediate model still possessed correlated errors and contributed to the relative lack of unidimensionality of the measures of the five unobservable variables in the intermediate model. Hence, through an iterative process, 16 indicators were dropped from the measurement model. During the iterative process, it was also found that GPA2 needed further subdivision into two dimensions: GPA2 and GPA3, the former consisting of indicators (P6, P8, P12, P17) which reflected distributional and promotional aspects of the marketing mix and the latter consisting of indicators (P11, P16, P18) which reflected product image. The list of indicators selected after assessment of unidimensionality and model respecification are presented with the adjusted measurement model in Figure 2.

The results of analysis using ITAN indicated a measurement model which satisfied the criteria for unidimensionality quite well. The item-factor correlations generated by ITAN indicated that every item in the measurement model loaded much more highly on its own factor than on any other factor. The average correlation of an item with its underlying factor is 0.824. Within-construct similarity coefficients were found to be much higher than between-construct coefficients. The values of coefficient alpha of the factors in the adjusted model were 0.872, 0.849, 0.918, 0.735, 0.796, and 0.819

respectively for GCA1, GCA2, GPA1, GPA2, GPA3, and SPA.

The goodness-of-fit indices generated by LISREL are presented in Table 2. The indices presented in Table 2 point to a much improved fit, although the chi-square statistic still indicated a lack of fit. The total coefficient of determination is 1.000 and all but four of the squared multiple correlations exceed the value of 0.5. Among the within-factor residuals the largest had a value of 6.57 (absolute), and 31.58 percent exceeded a cut off point of 2.58 and among the within factor modification indices, the largest had a value of 30.16 and 34.21 percent exceeded the cut-off point of 3.84. Although a major proportion of the standardized residuals and modification indices possessed values larger than their recommended cut-off points, they were much smaller in magnitude than those generated during the analysis of Model 1.

While it would have been possible to obtain a better fit of the model through the correlation of error terms, due to theoretical and substantive reasons, such a step was avoided.

INCREMENTAL FIT ANALYSIS

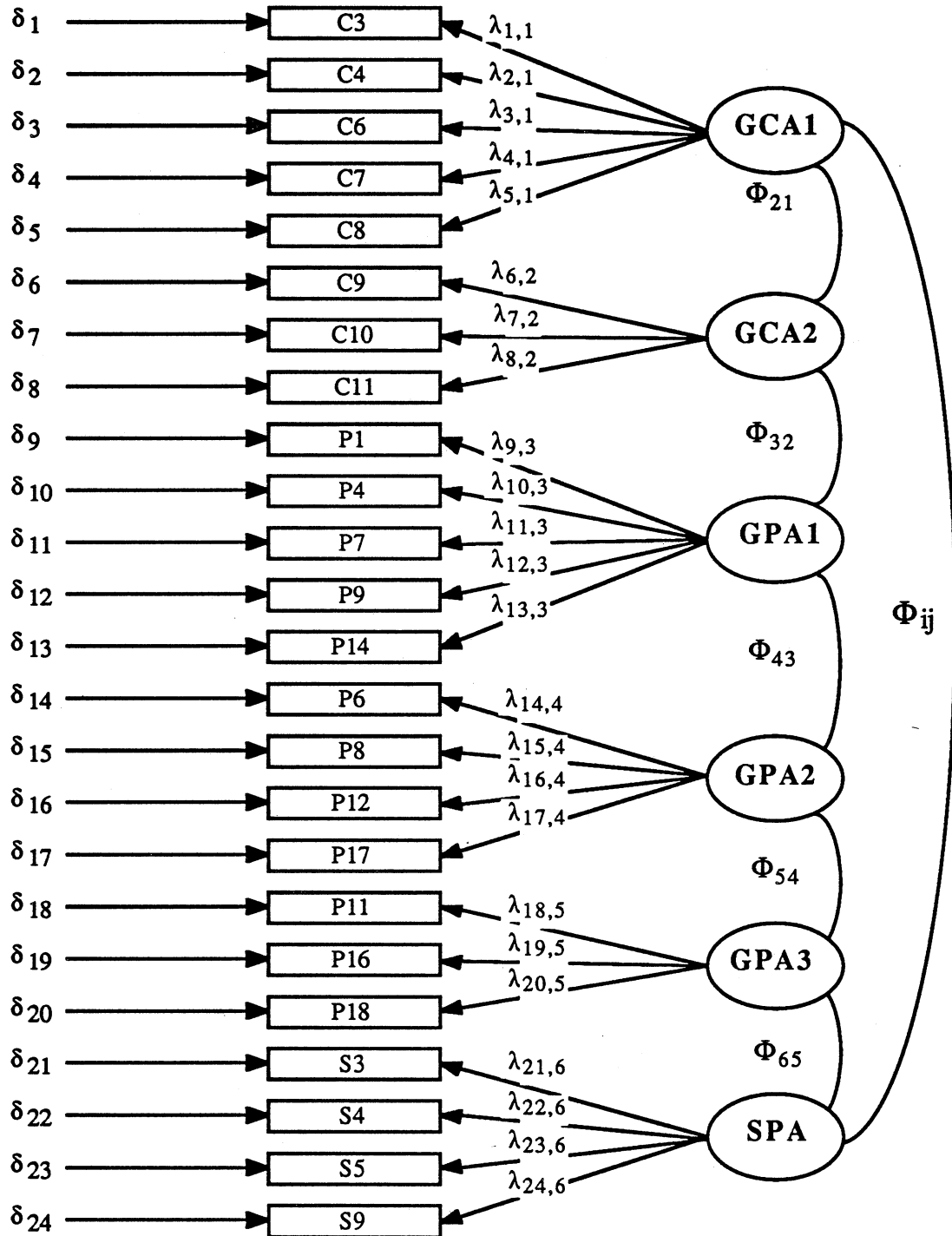
One of the problems of the chi-square statistic, which is used to test the overall goodness-of-fit of structural equation models, is that it is influenced by sample size. When the sample size is large (as in this research $n=678$), due to a bias in the statistic, it is particularly difficult for a model to be accepted. To overcome this bias, Bentler and Bonett (1980) have proposed an alternative method involving the analysis of "incremental fit." This method is based on the study of improved fit (represented by lower chi-square values) as a model is respecified.

The results of incremental fit analysis are presented in Table 3. The first model (Model 0) is the most restricted model in which all the 40 indicators are specified as observable variables of one unobservable construct. The drop in chi-square values with each model modification is noticeable and statistically significant ($p=0.05$) indicating that model respecification significantly improves the fit between the specified model and the data. The values of the Non-normed Fit Index and the Normed Fit Index indicates that the final model explains a large portion of the variance unexplained by the first model.

CONCLUSIONS AND LIMITATIONS

Over three decades of pre-occupation with the CO construct and its impact on consumer perceptions have led to a reasonably widely held belief that CO effects are created by a market country's people's cognition (level of economic development, nature of political climate, etc.), affect (toward a country's people) and conation (desired level of interaction with a country's people) regarding the source country. CO effects are also related to perceptions about the overall product offerings of the particular source country. In addition, CO effects are affected by the perceptions of the specific product being evaluated. Scales, such as the one used in this paper, are developed which

FIGURE 2
The Adjusted Measurement Model



incorporate three constructs that include the above generalizations. The results of our confirmatory factor analysis indicated that such a structure may need modification. A five factor model produced a significantly better fit which was still substantively

in line with the theory of the CO construct. The general country attributes, including cognition, affect and conation are in effect two dimensions -- conation impacting perceptions significantly different from cognition and affect. Similarly, the GPA construct

TABLE 3
Results of Incremental Fit Analysis

Models* Compared	Chi-Square Difference	Difference in Degrees of Freedom	Non-normed Fit Index	Normed Fit Index
M1 - M0	2935.27**	4	0.365	0.337
M2 - M1	3099.77	6	0.389	0.356
M3 - M2	2023.15	493	0.086	0.232
M2 - M0	6034.97	10	0.753	0.693
M3 - M1	5122.85	499	0.475	0.589
M3 - M0	8058.12	503	0.839	0.926

* M0 to M3 are abbreviations representing Models 0 to 3

** All the chi-square differences listed in this table were found to be significant at $p = .05$

splits into three components--negative attributes behaving differently than positive ones. Positive attributes relating to promotional/distributional image constituted the second GPA dimension and product image the third. This six construct model improved fit substantially more than the original three factor model.

This study has to be viewed as an initial attempt at identifying the proper structure for the CO construct. Our results may be product category specific in that the only product category tested in this study was automobiles. Further replications using other product categories and different source and consuming countries should provide definitive evidence regarding country and product images.

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Listen to the Music: Its Impact on Affect, Perceived Time Passage, and Applause

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ABSTRACT

This paper integrates a series of interesting findings related to how one responds to a musical stimulus. In particular, this paper focuses on one's affect toward a musical stimulus ($Affect_{ms}$) and uses information theory to examine the complexity of a music stimulus. Two models are then developed which provide a general framework for understanding applause duration and for understanding the perceived time duration of a musical stimulus.

Few topics in marketing are of wider appeal than those which examine the impact of music on processing, preference, and behavior. Though much of the work done in this area is either inconclusive or methodologically flawed, the three papers described below provide solid methodological advances toward better understanding of music on culture (Blair and Hatala 1992), on time perception (Kellaris and Altsech 1992), and on affect (Kellaris 1992). In further examining the contributions of the issues raised by these papers, this paper will raise additional insights related to the results of the studies in the latter two papers.

ESTIMATING THE TIME DURATION OF MUSIC

Music Volume and Gender Effects

The research of Kellaris and Altsech (1992) suggest that the estimated duration of a song is systematically underestimated by females if the song is played at a soft volume (60 dB). The differential impact of music on gender is well documented. Not only are females more sensitive to higher frequencies, and to increases in musical amplitude, but it also appears that they may generate less processing of auditory information in the left hemisphere of their brain. Though Kellaris and Altsech hypothesized that increases in the volume of music would cause females to *overestimate* the length of the music, in this study it resulted in them accurately estimating the time along with both the males who listened to loud music and those who listened to soft music.

The most interesting result of this research is the degree to which females *underestimated* the time duration of soft music. The critical issue that this result raises, however, may have less to do with gender differences and volume than it does with one's affect toward the musical stimulus ($Affect_{ms}$) and volume. The music used by Kellaris and Altsech (1992) was an instrumental piece described as "light pop-rock" or what might be considered "easy listening." In general, let us assume that females are more attracted to this type of music than males (who tend to instead "prefer loud 'Heavy Metal' music"). This is a reasonable assumption, given that informal interviews confirm that this gender bias is reflected

both in radio listenership and in the music purchases of "light pop-rock."

The Interaction of $Affect_{ms}$ and Comfort

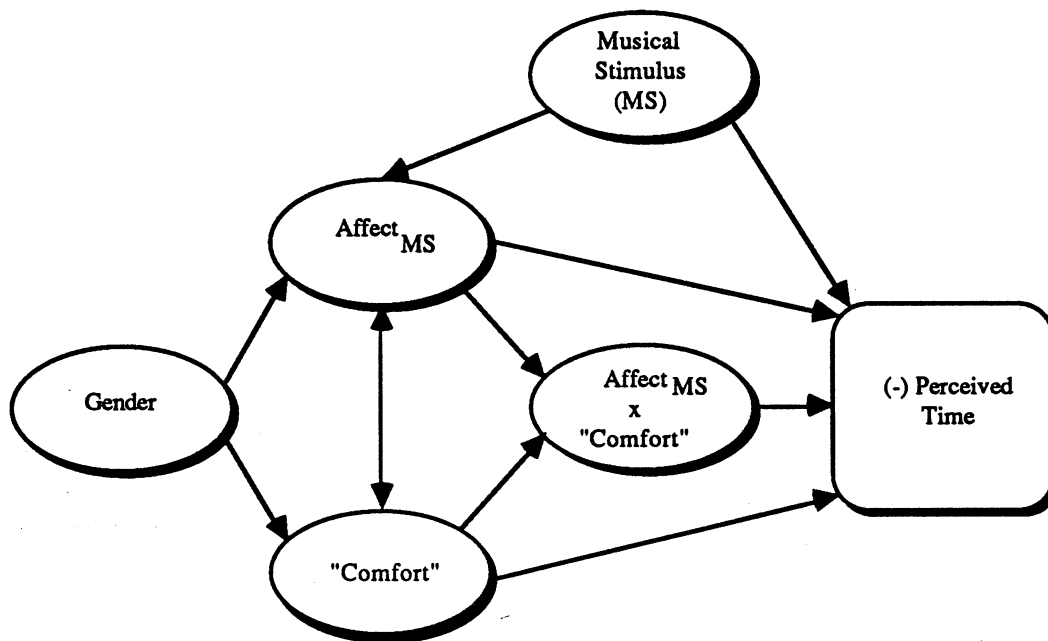
It is worth positing that the critical mediating variable when assessing time duration estimates would be $Affect_{ms}$: The more favorable one is toward the music, the shorter its perceived duration will be. In effect, the time spent listening to the music is more enjoyable, it does not seem to "drag," and it is accompanied by anticipation, not unlike what occurs when one views a favorite advertisement (Rossiter and Percy 1987). Therefore, given that females might favor "light pop-rock" more than males, we might expect a much different pattern of results if all the subjects were instead exposed to heavy metal music. In this case, *males* would tend to underestimate the duration of the music.

Though such a rationale would predict a main effect in the difference of the estimates between males and females, it does not explain the results of why we find that soft music is perceived by females as having less duration than loud music.

Rather than focusing on loudness as a variable, it may be that loudness should be viewed more in terms of the specific impact it has on an individual. Since females are more sensitive to loud music than males, at some decibel level loud music will result in greater annoyance or even discomfort. Under these conditions, one's general comfort-level might suggest an even more robust model. If "comfort" is used as a moderating variable, it would result in gender interacting with volume to impact on "comfort," which in turn influences one's perception of time duration. Figure 1 provides a model of these variables. This interpretation of the interaction of gender and volume on time duration is consistent with the results reported by Kellaris and Altsech (1992).

Given this interpretation of time duration, the type of music listened to can either increase or decrease one's $Affect_{ms}$ and in turn affect perceptions of time duration. $Affect_{ms}$ would have an impact on one's perception of a musical stimulus's duration both directly and indirectly through its interaction with one's comfort level. (In general, one's "comfort" is thought to be influenced by such factors as physical comfort and psychological comfort -- Thompson 1975. As antecedents to comfort, these two variables encompass such disparate factors such as music loudness and physical crowding). To the degree that loudness can affect one's comfort, it can affect one's perceived duration of music. In addition, as the results of the study suggest, if a high level of comfort (e.g., the music is soft) is coupled with high $Affect_{ms}$, we would expect one to underestimate the duration of the music stimulus. In summary, when one is experiencing a low level of comfort, or has low

FIGURE 1
Basic Determinants of Perceived Music Duration



Affect_{ms}, we would expect a higher estimate of the musical stimuli's duration than if one is "comfortable" and "likes the music." Such a model makes the results much more general and less driven by gender issues.

Insofar as gender can impact both Affect_{ms} and one's comfort level (through greater sensitivity to loud noises, etc.), we would expect the results found in the study.

The primary contribution of Kellaris and Altsech (1992) is that its findings suggest a new paradigm (Figure 1) that is rich for consideration. Fruitful future research in this area would test the validity of the model proposed in Figure 1 and would further investigate this issue of an audience member's "comfort."

THE IMPACT OF STIMULUS COMPLEXITY ON AFFECT_{MS} AND APPLAUSE

Kellaris (1992) presents a clever and rigorous field-study which uses a balanced experimental design that carefully accounts for confounds, and unobtrusively obtains a behavioral measure of Affect_{ms} by observing the duration of audience applause. The results indicated that the impact of a song's tempo on a crowd's applause follows a Wendt curve. Though this hypothesis is consistent with past research, the results indicated that the downward-sloping effect past the asymptote was highly significant for songs in minor chords but not those played in major chords.

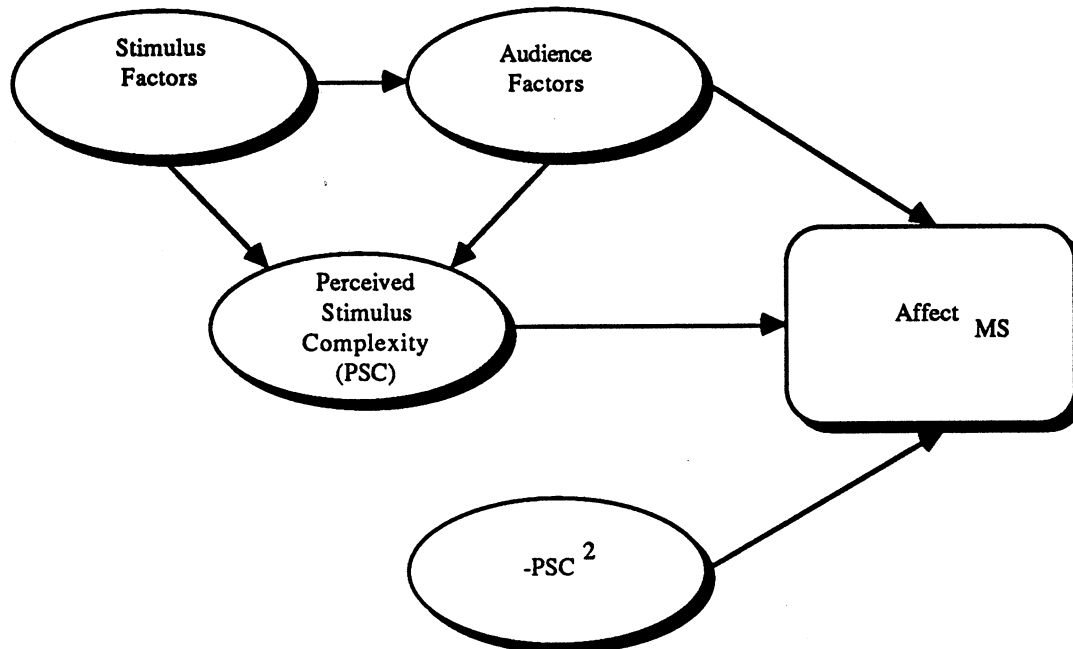
Information Theory and Stimulus Complexity

To make the basic Wendt model more generalizable to account for these results, it is useful to relate it with information theory (Shannon and Weaver 1949). In doing so, let us view a musical stimulus as providing a certain amount of information (Wansink 1984). For instance, a musical stimulus that is highly organized or structured (e.g., it has a melody that is repeated, is constructed with familiar musical elements, etc.) contains less information because it is more predictable than a less organized musical stimulus, the extreme case would be represented by random sounds at random volumes).

Given this orientation of information theory, it is reasonable to look at this distinction between major and minor chords in terms of their complexity as stimuli. In general, one can say these two differ on a dimension we could label as objective stimulus complexity. Because major chords are more commonly encountered and are more familiar (or predictable) to us, they can be seen as containing less information and as being less complex than minor chords. This variable of objective stimulus complexity could be measured using an information theory approach (Wansink 1984).

To restate a preceding point, since minor chords are less common and therefore less predictable, they contain more information than major chords and can therefore be viewed as objectively more complex than major chords. The results of Kellaris (1992) support this. If we assume that the songs played in major chords are at the top of an Affect_{ms} asymptote (as represented by a Wendt curve with objective

FIGURE 2
Proposed Determinants of Affect Toward a Musical Stimulus



stimulus complexity on the x-axis and $Affect_{ms}$ on the y-axis), those songs played in minor chords would be on the downside of this curve because they are objectively more complex. This is consistent with Kellaris' quadratic results: Songs in minor chords exhibited this nonmonotonic relationship with applause duration while major chords did not.

Stimulus Factors and Audience Factors Affecting Complexity

Because of the limitations of even such well-executed field studies as Kellaris', the data are not available to examine what audience-related factors might affect this measure of applause. Familiarity, fatigue, involvement, and arousal would all have effects not only on $Affect_{ms}$ but also on Perceived Stimulus Complexity (see Figure 2.). From an information theory perspective, PSC can also be increased by any stimulus factors that increase the amount of uncertainty associated with a stimulus, such as unfamiliar tempos or chords, or irregular tempos and chord changes. Up to a point (see Figure 3 -- point x'), increases in objective stimulus complexity (such as those that are associated with chord changes and tempo changes) have a positive impact on $Affect_{ms}$. After this point, however, additional changes will have a negative impact, unless accompanied by increases in a relevant audience state variable (such as arousal, familiarity, etc.) which would represent a shift in Figure 3 from State A to State B.

Given the detailed coding of Kellaris' (1982) study, a number of general conclusions could be reached by analyzing the indirect impact of these

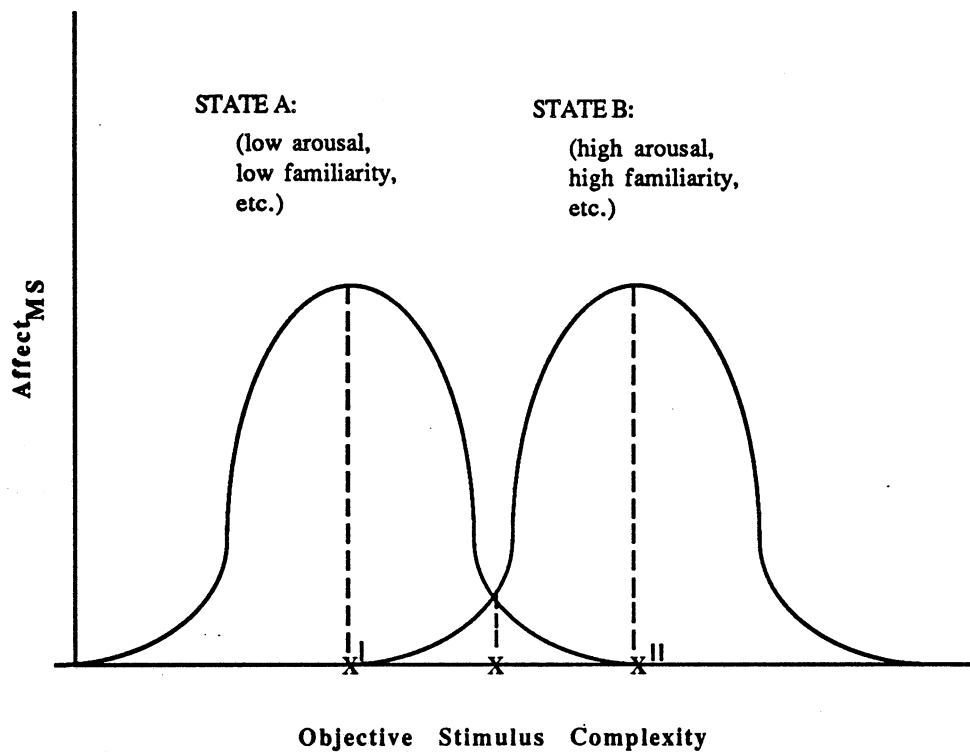
different stimulus-related variables (tempo, duration, meter, modality, presence of lyrics, instrumentation, type, etc.). In addition, this data could be further analyzed by examining the presentation order of songs and by running a regression which includes a lagged-term of applause (e.g., applause length on the previous song) to assess the impact of arousal and also of fatigue. In effect, the more aroused a crowd (see Figure 3), the more they are likely to respond toward a song that is more complex than a song at point x (but less complex than one at point x").

The impact of these factors will undoubtedly vary across people. As suggested by Anand and Holbrook (1986), the more aroused an individual is, the more likely it is that he or she will desire a stimulus that is objectively more complex (to point x" in Figure 3). This shift from State A to State B has different implications for how favorably one will be toward a complex stimulus ($Affect_{ms}$). It is not unreasonable that such shifts would also occur as a person's familiarity with the music changes or as his or her comfort level changes (Kellaris and Altsech 1992).

SUMMARY

Though music represents a complex gestalt that one "pulls apart . . . only at one's peril" (Anand and Holbrook 1986), a number of fascinating findings exist that can be best understood by broadening and generalizing the context in which they are observed. This paper integrates a series of interesting findings by providing an information theory approach to

FIGURE 3
Audience Factors and Their Relationship Between Objective Stimulus Complexity & Affect Toward a Musical Stimulus



Affect_{ms} and by suggesting how this interpretation can influence Affect_{ms}, which in turn affects other variables such as perceived time duration.

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The Use Of Rap Music In Children's Advertising

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Rap music, with its boastful rhymes and synthesizer-created claps and pops, has moved out of the ghetto and into the mainstream of popular culture. In rap music, African-Americans have found a powerful expression of their culture. Rap's rhythmic chants and hip style fit the image of products like sneakers and soft drinks. Since children and teens are the major consumers of rap music, it is only logical that rap should be used to promote products to these age groups. The purpose of this paper is to investigate and observe how a social statement about life of oppressed youth in the ghettos becomes so acceptable to the mass culture that it is used by many white advertisers to sell products.

INTRODUCTION

Music in advertising is being studied by marketing scholars in an increasingly diverse number of ways. Initially, there was an emphasis on the measurement of aesthetic qualities of the music (Holbrook and Huber 1979; Holbrook and Bertges 1981). In these studies a number of semantic differential items were factor analyzed and the factors were given names that corresponded with certain qualities of the piece of music (e.g. activity, coolness, heaviness, and sadness). Several years later, Gorn (1982) stimulated interest in the use of music in the background of advertisements. This study provided evidence that preferences for products could be classically conditioned through the use of music. Bruner (1990) recently reviewed the diversity of ways in which music has been studied by marketing scholars and, like the Holbrook studies cited above, emphasizes the decomposition of the music into components such as time (includes rhythm and tempo), pitch and texture. A new rhetorical approach to the study of music in advertising was introduced by Scott (1990). This article criticizes previous music-in-advertising research for ignoring the cognitive involvement of the listener. It is emphasized that music can be informative or affective, and should not be separated from its social context and meanings that are culturally shared. Culturally-shared meanings in music have been largely ignored in previous studies and the current research is one of the first to examine advertising music from an anthropological/sociological perspective.

Rap music, with its boastful rhymes and synthesizer-created claps and pops, has moved out of the ghetto and into the mainstream of popular culture. In rap music, African-Americans have found a powerful expression of their culture. Some rap artists have attempted to use this force to bring about social change, for example, by speaking out about black-on-black violence. Pepsi-Cola, Coca-Cola and the British Knights athletic footwear company have all signed popular rap artists to promote their products. Rap's rhythmic chants and hip style fit the image of products like sneakers and soft drinks, especially with

young consumers. Because children and teens are the major consumers of rap music, it is only logical that rap should be used to promote products to these age groups. Advertisers believe that rap music facilitates memorization of the product information and creates excitement (Barber 1987). Rap music also allows more lyrics per 30 seconds than any other form of music (Winters 1990).

Many black rappers are concerned that as rap music moves into the mainstream, they will not be given the appropriate credit and compensation. In his introduction to *The Rap Attack* (Toop, 1984), Tony Van Der Meer states the problem with the commercialization of rap music:

There is nothing wrong with one community learning from the cultural forms produced by another, if it respects their specific shapes and meanings. There is something horribly wrong with a dominant community repeatedly co-opting the cultural forms of oppressed communities, stripping them of vitality and form—the heritage of their creators— and then popularizing them. The result is bleached pepsi culture masquerading as the real thing. This is what threatens to dilute the real feeling and attitude of hip hop, preventing its genuine forms the freedom to fully develop. The expression of Black people is transformed when it is re-packaged without any evidence remaining of the Black historical experience.

In the 1950's and early 1960's producers were interested in promoting white artists, such as Elvis Presley, to perform rock and roll music which had been previously recorded by black artists. The white performer was instrumental in promoting acceptance of a musical style among mainstream audiences. According to Peterson and Berger (1975) black rhythm and blues performers were most often the victims of the "cover tactic", where major companies would quickly record and market a version of a fast-selling song recorded by a smaller independent company. The development and acceptance of rock-and-roll was in many ways similar to the development of rap in the late 1980's and the development of jazz in the 1920's. All of these movements began in the black community. Both rap and rock-and-roll used the language of that era's youth to express the conflicts in their lives. Some of the first rap concerts, like some of the first rock-and-roll concerts, were plagued by riots, leading people to believe that this new music was corrupting today's youth. These public reactions parallel the moralistic reaction against jazz in the 1920's. According to Peterson and Berger (1975), this controversy indicates that the music was viewed as important and radically different from the music that preceded it.

How does a subcultural phenomenon such as rap become integrated into the mainstream of mass culture? The purpose of this paper is to investigate and observe how a social statement about life of oppressed youth in the ghettos becomes so acceptable to the mass culture that it is used by many white advertisers to sell products. Children's advertising is examined as a vehicle of mass culture, in order to observe how intensively rap music has penetrated the mainstream of society and how blacks are represented in ads using rap.

A MODEL OF MASS CULTURE

Gottdiener (1985) proposed a model of mass culture which is inspired by Marxian hegemony theory, but is at the same time critical of that theory. He suggests a semiotic approach for explaining the influence of various subcultures, particularly youth subcultures associated with certain musical styles, on the mass culture. The concept of hegemony means the way in which an entire ideological complex of beliefs, values and attitudes that function for the sustenance of the ruling class comes to dominate every aspect of society. This model assumes that social groups of all kinds, including powerful, as well as less-powerful groups, are understood to be the bearers of meaning. "Mass" culture is made up of various individual subcultures, which vary in the extent to which they interact with the dominant ideology in society. Before there is a "mass" culture there must be "culture", meaning the conceptual forms and accumulated knowledge by which social groups organize everyday experience. The "mass" culture develops as a result of dynamic meaning creation from groups which may or may not be closely allied with the dominant ideology (Gottdiener, 1985).

Gottdiener visualized the production and control of ideological meanings as operating in three separate stages. In the first stage, producers produce objects for their exchange value, whereas purchasers of those objects desire them for their use value. The link between the producers and users occurs when producers communicate an image for the product, usually through advertising. Even though advertisers have been accused of controlling the consciousness of the purchaser, most advertisers would testify that their efforts to control consumers are often unsuccessful. Successful transfunctionalization of goods from exchange value to desirable use value status has been achieved by several large sporting goods companies. The manufacturers of Reebok, Puma, Nike and Adidas sneakers are making huge profits because their shoes have become accepted not only as the most technologically advanced, but as stylish and prestigious. These manufacturers did not intentionally market these products to appeal the hip hop (rap) subculture, but their products were subsequently adopted by this group, becoming part of its identifiable look.

In the second stage, users modify objects of mass consumption in order to express certain cultural symbols, or in connection with specific group practices or for use in subcultural activities. This is when culture is actually *created* by the users of the

object. The primary use value of the object is transformed, so that the object becomes a sign of belonging to a subculture. In some cases, the commodity may become so personalized that it is no longer effective in its primary function. An example is when a vehicle is modified by a subculture to achieve a particular look, resulting in the vehicle becoming impractical as a daily means of transportation. In rap music, this process occurred when D.J.'s took old recordings from a number of artists ranging from James Brown to The Rolling Stones and repeated the same few bars during the drum break of the song, extending the break into a new instrumental composition. D.J.'s teamed up with MCs (rappers) who provided the show, creating spoken rhymes over the beats. A style of dress developed in which sneakers became high fashion (Toop 1984).

During the third stage, the producers of mass culture decide to capitalize on these subcultural trends. The transfunctionalized objects produced by the subculture become the raw material for cultural production by the mass culture industries. During this process, subcultural meanings are changed by mass producers (such as advertisers) into more marketable, less radical meanings. This third stage is extremely important to the process of ideological control. The first and third stages of this semiotic model together constitute a powerful social practice by which the user/object relation is controlled in order to reproduce the social relations necessary for capitalist production. It is evident that big business is making big money from the impact and influence of the rap culture. Major publishers are publishing books illustrating the techniques of "popping", "moonwalking", "spinning" and other breakdancing moves. Sections of these books also inform the reader how to "dress like a breakdancer" and how to "talk like a breaker" (Toop 1984). Gottdiener concludes that theorists advocating ideological domination fail to appreciate the importance of the relative autonomy of subcultural life. It is true that the consumption habits of individuals are so manipulated by the mass culture industries as to transform the production of meaning by subcultures into a managed market purchase. But this does not always happen because consciousness *itself* cannot be controlled. Fortunately, there will always be groups who desire to distinguish themselves from the mainstream and produce meanings for cultural objects that are independent of the logic of exchange value and dominant cultural sensibilities. Interestingly, these two sources of cultural production are dependent on each other.

The Development Of Rap

Rap music originated in the Southeast Bronx of New York City, when some street gangs decided to put their energies into more creative pursuits. Rap started as a verbal competition and was related to the Afro-American tradition of word battles such as "the dozens." Rap developed in the Bronx as part of the hip hop subculture, along with breakdancing and graffiti art. Hip hop parties (known as "house parties") usually included a show put on by a D.J., rappers, dancers, and graffiti artists who provided the

decor. The first rap music was happy, party music and often involved nonsensical bragging between males. During this time, there was also competition among D.J.'s to develop the most creative sampling of records. Old "Monkees" tunes, T.V. themes (such as Gilligan's Island) as well as Funk and Rhythm-and-Blues classics were all borrowed and sampled in unusual ways. Often the original tune was unidentifiable because D.J.s would alternate between two different turntables, repeating the drum sequence from each record a number of times. As predicted by the model of mass culture, described above, the hip hop subculture borrowed some musical products from the popular culture, and "personalized" them to be distinctive to their own group's activities.

Although they were not prominent in the initial development of rap, the introduction of rap into a national audience was accomplished by a three-man group known as Run-DMC. Their remake of the song "Walk This Way", originally a hit for the white rock group Aerosmith, sold 3.3 million copies, and demonstrated to artists and producers that rap was not just a passing phase (McKinney 1989). Rap has moved off the East coast and prominent rappers are popping up all over the country. Though originally a male phenomenon, many prominent female rappers are now expressing their unique points of view (DiPrima 1990). Vanilla Ice is the name of a white man who has become a hit rap artist. Rap has diversified considerably and much of the recent rap music could be described as a crossover between rap and some other style, such as pop, funk or R&B. The most important development in recent rap music is that it has become more political, and serious intelligent messages about life in urban black neighborhoods have replaced the emphasis on nonsensical, party-type lyrics (Adler, Foote, and Sawhill 1990).

THE REPRESENTATION OF BLACKS IN ADVERTISING AND MASS MEDIA

A recent article in *Marketing News* (Schlossberg 1991) stated that advertisers often miss the mark with black consumers and are sometimes insulting. In this article, a black ad agency owner, a black human resources consultant and a black marketing professor expressed their views on the representation of blacks in advertising. They said that "many corporate management organizations, especially those that are predominantly white males, hold stereotypes which prevent them from seeing the market as it truly is and communicating to it properly." Contributing to this problem is the fact that marketers must try to appeal "to the growing black market without alienating the dominant white market" (Bush, Hair, & Solomon 1979). Historically, some researchers feared that using African-Americans in advertising, whether exclusively or in "integrated" commercials with whites, would create a "white backlash" among extremely prejudiced whites resulting in a negative sales response (Cagely & Cardozo 1970). Subsequent research has dispelled this fear, with research showing that white and black consumers do not differ in attitude or purchase

behavior when exposed to black, white or integrated promotional stimuli (Solomon, Bush, & Hair 1979).

In the past, evidence did indicate that blacks were underrepresented in the media, and when presented, were often shown in stereotypical roles such as "Uncle Tom and Aunt Jemima" (Colfax and Steinberg 1972; Kassarian, 1969). Blacks were infrequently seen on television throughout the 1950's, except in the sort of negative stereotypes portrayed on the Amos 'n' Andy show, which was eventually cancelled in 1964 due to pressure from the Civil Rights movement (Northcott, Seggar, & Hinton, 1975; Dominick & Greenberg, 1970). In 1965, Bill Cosby was the first black actor to really break into prime time television with his co-starring role in "I Spy", for which he eventually received three Emmy awards (Dominick & Greenberg, 1970). By the mid-1970's, blacks were more prevalent on television and there were even a few all-Black or "segregated" shows such as *Good Times*, *That's My Momma*, and *Sanford and Son* (Banks, 1977). Although blacks also appeared in "integrated" television shows such as *The Rookies* and *Mannix*, they didn't usually play the part of a major character. Black characters tended to be clustered in only a few television programs (Gerbner, Gross, Morgan, & Signorielli, 1982), and appeared in programming and commercials only about 9% of the time (Weigel, Loomis, & Soja, 1980). It was found that, even though 67% of the American work-force was employed in blue-collar or service industry jobs, only 10% of all television characters were, and these characters were likely to be black (Gerbner, Gross, Morgan, & Signorielli, 1982; Pearl, Lazar & Bouthilet, 1982). This was especially true of black characters on "segregated" television programs; blacks on "integrated" television programs tended to be better assimilated into white society and held higher status jobs than their less assimilated brethren (Banks, 1977). Content analysis studies have shown that since the mid-1980's, blacks have been increasingly shown in culturally assimilated television shows, indicating a change from "low-income all-black settings to more upscale middle-class ones" (Matabane, 1988, p.30). With the success of shows such as *The Cosby Show*, *Amen*, and *A Different World*, this trend is likely to continue.

If blacks have been underrepresented on television shows, they have been seen even less frequently in television advertising. For example, in 1964, African-Americans were given .65% of the speaking roles in commercials and 1.39% of the nonspeaking roles (Kassarian, 1969). By 1967, only 2.3% of all television commercials used any Blacks, Orientals, Puerto Ricans, or Native Americans (Dominick & Greenberg, 1970). When actually used in a commercial, African-Americans were typically shown in a background role with a large number of other people. For example, in 1967 the median number of people in an advertisement in which a black appeared was 10; for advertisements without blacks, the average was 1.6 (Dominick & Greenberg, 1970). O'Kelly and Bloomquist (1976) counted the frequency of blacks and females in children's programming, adult programming and news programming. The frequencies

of blacks and females in the advertisements were compared with frequencies during the programming that contained them. It was found that non-whites represented 1.6% of the characters in children's programming and only 3.8% of the characters in the commercials. This significantly under-represents the percentage of blacks in the population of the U.S. (about 12%). More recently, however, this is changing and many companies have recognized the importance of the ethnic market. The black professionals mentioned above stated that Coca-cola and McDonald's are particularly sensitive to the heterogeneity that exists within the black subculture (Schlosberg 1991). Advertisers must recognize that using rap music may not be appropriate for appealing to all blacks, and may be especially inappropriate for upscale blacks who associate rap music with "hanging out" on the street corners.

RESEARCH METHODOLOGY

The objective of the methodology is to examine the pervasiveness of rap music in children's advertising and to observe the hegemonic process. Because the methodology is largely exploratory, it is difficult to predict in what ways the hegemonic process will manifest itself, if at all. This study is preliminary, in that it does not look at evidence over time, only advertisements appearing within one month's time are examined. Content analysis (Kassarjian 1977) is used to examine how frequently rap occurs and to record the types of products and types of characters by race and sex. It is expected that blacks will appear more frequently in ads that use rap than in other types of ads. It is also possible that blacks will appear in stereotypical ways, because their subculture is not likely to be understood by advertisers. Advertisers are expected to present rap in ways that they believe to be highly acceptable to the mainstream audience.

The sample of ads came from Saturday morning programming (8 am to 11 am) on each of the three major networks. The programming and ads were videotaped on three consecutive Saturdays in October 1990. All advertising that occurred during these programming hours were included in the content analysis, except for one half-hour show on NBC. The NBC videotape contained one show called "Inside the NBA", which was a preview of Saturday afternoon basketball games. Since it was not targeted toward children, and the advertising differed dramatically from the typical children's ads, the advertising from this show was eliminated from analysis and the advertising from 11am to 11:30am was substituted.

Each commercial was identified by the product name, network and number in commercial sequence. People or characters in the ads were coded as white only; black only; black and white; white and other; white, black, and other; or doesn't apply. Characters were counted as black if they appeared to the judges to be at least partly of African-American heritage. Asian and oriental characters were the most commonly occurring characters to be identified as "other". The sex of the people or characters was identified as males only, females only, both or doesn't apply. Products

were classified by gender orientation (boy, girl or both) and type of product. If rap music was used, the rapper was identified by sex, race and type of character (e.g. real human vs. cartoon). Two judges were used to code the advertisements. One of the judges is the first author and the second judge is a friend and business person who was paid, and was not involved in the writing of the paper or development of the coding scheme.

RESULTS

There were a total of 224 advertisements in the sample, including commercials that were repeated. Commercials appearing only once made up 58% of the sample, while repeated commercials made up the remaining 42%. The subsequent analysis is based only on ads that are unique to the sample. In other words, an ad that appeared more than once, whether between networks or within the same network, was counted only one time. There were 130 advertisements which fit this description.

The interjudge reliability was 88% and, in the case of a discrepancy, the judgement made by the first author is reported here. Eleven commercials were judged by the first author to contain rap music. The second judge was not as strict in his definition of rap music, but was in agreement with the first author that these particular eleven commercials contained rap. To be considered rap music the words had to be spoken in rhythm and not sung to a melody. Rap music was usually accompanied by typical rap behavior such as; wearing sneakers, baseball caps and work-out suits, speaking into microphones and break-dancing.

Upon examining the race of the characters in the ads, it was found that a majority of the advertisements showed white people only (55%), and an additional three percent of the ads were classified as having characters that were white and other (not black). Three advertisements (3%) showed black people only. Twenty-nine percent of the ads showed whites, blacks and at least one person classified as "other". The remaining eight percent of the ads contained characters that were not human and could not be characterized by race (e.g. a rapping Teddy Bear).

Females were represented almost equally with males within the set of advertisements. Twenty-five percent of the ads contained males only, eighteen percent contained females only and all except three of the remaining ads contained people of both sexes. Once again, these three ads did not contain any characters which could be classified by sex (e.g. cartoon honey bee). Most of the products in the ads were directed toward children of both genders (69%), while twenty-three of the ads (18%) were aimed at females and seventeen ads (13%) were aimed at males.

In the original sample of 224 ads (including repeats), rap music was used in twenty-four of the ads, which is ten percent of the sample. In the subset containing only unique ads, eleven ads used rap music, which is nine percent of the subset. Interestingly, the rappers used by the advertisers were equally divided between blacks and whites. Five ads used a white rapper, five used a black rapper and one used animated characters that could not be classified by race. The

rappers were male in nine ads, female in two ads. Both ads using female rappers were promoting toys in the "Barbie doll" line (Barbie Trading Cards and Cool tops Skipper doll). These rappers were considered to be white because all of the girls appearing in the ads were white, even though the little girls who were actually singing did not appear. Four different ads for Lego products were included in the sample of unique rap ads because they were advertising different toys. All of the Lego ads showed the same black boy who mouthed the words to a rap song, while two white boys danced on either side of him and appeared to be "backup singers." The Hot Wheels Racer ad also showed one black boy as the rapper, while the other white boys were shown in the background. The three white male rappers were all cartoon characters. "Barney Rubble" was a rappin' detective talking about Pebbles Cereals. A "Campbell Kid" and a rapping Teddy Bear take turns rapping in an advertisement for Campbell's Teddy Bear soup. "Punchy", who looks like a little Hawaiian tourist, does the rap for Hawaiian Punch. Finally, the most unusual rappers in the sample were the "Chicken McNuggets" from McDonald's, which looked like little brown puppets and were counted as being male because of their voices and baseball caps.

An important observation is that white rappers always appeared in ads with only white people, while the black rappers always appeared with white people, never other blacks. The rule which seems to apply here is to never isolate the "majority". This is consistent with the finding by Dominick and Greenberg (1970) that blacks are typically shown in the larger context with other characters. This rule also seemed to apply to gender representations in children's advertising, assuming that males are a "psychological" majority. In the twenty-one ads that were obviously aimed at boys, males only (usually adult) provided the voiceover. The voiceover was defined as a person who does not appear in the advertisement but does have the last word. In the ads directed toward girls, a female (usually adult) always provided the voiceover. For products aimed at both boys and girls, males usually had the last word. In seventy of these ads, a male provided the voiceover, while females provided the voiceover in only eight advertisements.

DISCUSSION AND IMPLICATIONS

The results provide some preliminary evidence that rap music may be undergoing a hegemonic process because of its interpretation by advertisers. They seem to believe that because rap is popular, kids will like any message that is presented in a rhyming way, which is probably true. The advertisements for boys' toys were most true to the original rap style. The Hot Wheels and Legos ads each used a black boy as the rapper and included a little bit of dancing with their singing. Perhaps these advertisers felt that rap music could appear in a more true form with these toys because rap has been traditionally macho. It appeared that the Barbie ads were the least rap-like, with the little girls speaking in unison in a rhythmic way, but certainly avoiding any male symbolism. The fact that the other rappers were white cartoon characters is

further indication that rap music is being trivialized in some ways.

There is also evidence which indicates that both blacks and females are more frequently represented in this study than in previous studies. For example, O'Kelly and Bloomquist (1976) examined the frequency of both blacks and females in children's advertising. In their content analysis, every single character was coded according to race and sex. They found that 302 characters were white and 12 characters were nonwhite (only about 4% of the sample). In the present study, both white and black characters are represented in more than 25% of the advertisements. This difference in results is possibly due to a couple of different things. First, in our study we did not count individual characters. It was only noted whether or not at least one black or female person appeared in the commercial. It is likely that these "minorities" were outnumbered by "majority" children. The difference between our results and those of O'Kelly and Bloomquist (1976) may also indicate a greater consciousness on the part of advertisers to represent blacks and females more frequently. It is our opinion that blacks were not shown in particularly insulting or stereotypical roles. Usually, their roles were no different from the white children in the commercials. On one hand it might be argued that the Lego commercials used a "token" black. On the other hand, this boy was in an enviable position as the leader and rapper of the group. It was a role that boys of all races could admire. In conclusion, rap music appears to be moving into the third stage of Gottdiener's (1985) mass culture model, in which a social trend is sanitized by the producers of mass culture. It is in some ways unfortunate that the mass culture industries have the ability to dominate and manipulate the development and diffusion of rap music, because most of these producers have little understanding about the subculture from which it originated. For most Americans, exposure to the group life of others takes place through the agency of mass culture (Gottdiener 1985). This is the most unfortunate outcome for a subculture in which many young people hoped that rap could be a "way out" for disadvantaged youth and a chance that others might listen to what they have to say.

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The Experience of Time as a Function of Musical Loudness and Gender of Listener

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ABSTRACT

This study examines the influence of music and gender on the experience of time. Consumers experience waits and delays in many contexts. Environmental factors such as music may diminish (or augment) perceived time during these periods. An experiment found musical loudness to increase perceived duration of time passage among female listeners. A second dimension of temporal experience, perceived pace, was positively influenced by loudness irrespective of listener gender. Practical implications and directions for future research are discussed.

INTRODUCTION

Consumers frequently experience waits and delays in checkout lines, bank teller lines, registration and voting lines, airports, restaurants, medical offices, and many other consumptive contexts. A recent advertisement for long distance telephone services illustrates the adverse effects of excessive "hold time" on customers placing orders by telephone. Since many consumers consider time a valuable personal resource (Jacoby, Szybillo, and Berning 1976; Hornik 1984; Bergadaa 1990), longer waits may lead to greater inconvenience, annoyance, and dissatisfaction. In extreme cases, sales may be lost when customers are kept waiting too long.

As a practical matter, marketers cannot always control actual waiting time. They can, however, manipulate factors in the stimulus environment which can influence consumers' perceptions of time passage during these periods. Environmental music is one such factor.

As the popular utterance suggests, time seems to fly when one is having fun. Thus, the presence of enjoyable music might be expected to diminish listeners' perceptions of time passage. The process by which music influences listeners' perceptions, however, may not be that simple. Music is not a "generic sonic mass" that operates through its mere presence or absence (Bruner 1990). It is composed of numerous variables, each of which, along with their interactions (Kellaris and Kent 1991), can influence cognitive outcomes (Dowling and Harwood 1986).

The perceived duration of a time interval "filled" with music should depend on the specific character of that music. The character of a piece of music is determined by the interplay of its stimulus properties with listener characteristics (Bruner 1990). Loudness is an important musical stimulus property. It is a basic characteristic of all forms of music, and it can be easily controlled by marketers. Gender is an important listener characteristic that may moderate the effects of musical properties on cognitive outcomes such as time perception. Previous research has found the sexes to differ in terms of hearing sensitivity (Corso 1963), cognitive processing of auditory

stimuli (Kimura 1985), and preferences for stimulation levels (Kellaris and Rice, forthcoming). Although gender differences in music perception remain largely unexplored, we expect differences to emerge based on theory and research findings in audiology, brain physiology, cognitive psychology, and psychomusicology.

This study examines the effect of music on consumers' experience of time. Two aspects of temporal experience -- perceived duration of a time interval and perceived pace -- are examined. Based on theory drawn from diverse disciplines, gender is hypothesized to moderate the influence of music's loudness on perceived time passage such that louder music augments subjective time experience to a greater extent for female listeners. Perceived pace, the subjective speed with which a succession of events takes place, is also expected to be a function of music's loudness, with a similar moderating effect of gender.

REVIEW & HYPOTHESES

Perceived Time

Time flies when you're having fun. On the other hand, a watched pot never boils. These expressions refer to the relationship between the events filling a time interval and its subjective duration. As William James (1890/1952) noted over a hundred years ago, "In general a time filled with varied and interesting experiences seems ... long as we look back ... empty time seems ... in retrospect short" (p. 408).

There are several models of psychological time that relate stimulus properties of events filling a time interval to the experience of duration (Levin and Zakay 1989; Block 1990). Although alternative models provide different explanations, they tend to make similar predictions concerning basic stimulus-response relationships. For example, when a time interval is filled with more events, more information, more complex, intense, or salient stimuli, the perceived duration of that interval is generally greater. Ornstein (1969) would explain this in terms of the amount of memory or "storage size" associated with the judged interval. Zakay (1989) might explain this in terms of attentional resources required to process the stimulus information. Greater allocation of attentional resources to processing nontemporal aspects of the stimulus reduces attentional allocation to the internal clock ("cognitive timer") assumed by his model. Fraisse (1984) emphasizes the role of change as a determinant of perceived duration. The greater the change (i.e., number of successive events that take place during a time interval), the greater the perceived duration of the interval. This type of inference is based on the simple heuristic "it must take longer for more things to happen."

In addition to perceived duration, consumers experience time in terms of subjective pace. A succession of events within a time interval, irrespective of the duration of that interval, can take place slowly or rapidly. Children learn to associate time, velocity of motion, and distance at a fairly early age (Piaget 1927/1969). It takes a certain amount of time for an object traveling at a given speed to move a fixed distance. Because a faster moving object travels a greater distance than a slower moving object during a fixed time interval, the faster moving object is perceived as moving for a longer time -- even when the faster and slower moving objects start and stop at the same time (Levin and Zakay 1989). By analogy, the velocity or pace of sounds may be perceived in the same way as visual objects. Auditory stimuli which "move" at higher levels of perceived activity should be perceived as longer in duration.

Based on these models, we can predict effects of musical stimulus properties on the experience of time. For example, music which is louder, more salient, or more complex should be perceived as longer in duration and faster in pace. Among musical stimulus factors that affect the experience of time, loudness is probably the simplest to manipulate. Marketers can easily control the volume of atmospheric music in retail environments, or the level of "hold music" on telephone answering systems.

Moderating Effect of Gender

As previously noted, reactions to music are not determined solely by the objective properties of sound. Listener characteristics influence the subjective perception of music. For example, one study found musical preferences to vary by age of listener (Holbrook and Schindler 1989). Many studies have found extent of musical training to influence reactions to music (Dowling and Harwood 1986). We believe that gender may also moderate the impact of music on listeners. There are several reasons for anticipating this.

First, men and women differ in terms of hearing sensitivity. College-aged females generally have more acute hearing, particularly in the higher frequency range (i.e., 4000 Hz and above), than do college-aged males (Corso 1963). This not only means that a given sound may seem louder to females, but, because high frequency overtones determine the timbre or "tone color" of a pitch (Dowling and Harwood 1986), musical sounds may be perceived more vividly by females. As a result females may be more sensitive to music in general, and particularly to effects stemming from sound intensity.

Second, brain physiology research has documented sex differences in auditory information processing (Kimura 1985). Musical information tends to be processed predominantly in the right hemisphere of the human brain. For many processing tasks, including the processing of nonverbal information, females exhibit less lateralized encephalographic activity. If one assumes this to indicate the involvement of more cognitive resources in nonverbal auditory processing among females, females may be more prone to cognitive effects of musical stimuli.

Third, there is limited anecdotal and empirical evidence that suggests college-aged males and females may prefer different levels of auditory stimulation. Anecdotally, it appears that the majority of listeners who prefer loud "Heavy Metal" music tend to be young males. An empirical study by Kellaris and Rice (forthcoming) found a negative effect of musical amplitude on the affective evaluations of women. Males' affective evaluations were statistically invariant across loudness conditions, but showed a slight positive increase as loudness increased. Given this finding, we might expect loudness to augment duration perceptions among females. Time should seem to "drag" when the level of stimulation induces a decrement in positive affect. (See Loftus et al. (1987) for further discussion of differential effects of stimulation level on time estimates of males and females.)

Fourth, Block (1990) proposed that "characteristics of the time experiencer" interact with the "contents of a time period" to influence time-related judgments. Gender is among the important characteristics of the time experiencer in Block's conceptual model. Although Block's model does not explicitly state how gender is expected to interact with contents of a time interval, theory and findings from audiology, brain physiology, and psychomusicology provide a sufficient basis for prediction.

Hypotheses

Based on our review, we anticipate the following effects of music on temporal experience. First, since louder music confronts listeners with more sensory information and evokes greater involuntary attention which distracts from time processing, we expect the loudness of music to augment the perception of time passage for most listeners. Specifically:

H₁: Louder music will be perceived as longer in duration.

Second, we expect gender to moderate the effect of loudness on time perception. Given differences in hearing sensitivities, cognitive processing, and stimulation level preferences, females should be more prone to the influence of loudness on perceived time passage. Stated formally:

H₂: The effect of music's loudness on perceived duration will be significantly more positive for female listeners.

Third, we expect loudness to affect perceived pace of the stimuli filling a time interval. Loudness, like the brightness of a light, is a physical property of sound closely associated with stimulus intensity. Based on the relationship between stimulus intensity and perceived activity (Anand and Holbrook 1986), one might anticipate louder, more intense stimuli to produce the illusion of faster pace. Furthermore, the internal arousal state induced by higher levels of stimulation should reinforce this effect (Smith and Curnow 1966). Thus:

H₃: The loudness of music will have a positive effect on perceived pace.

Finally, as with perceived duration, the effect of loudness on perceived pace may also be moderated by gender for similar reasons.

H₄: The effect of music's loudness on perceived pace will be significantly more positive for female listeners.

EXPERIMENT

Overview

We tested our hypotheses in a 2 X 2 factorial experiment using a between-Ss design. Treatments included two levels of musical loudness (soft = 60 dB, loud = 90 dB) and gender of listener. The dependent variables were retrospective duration estimates and perceived pace. Ss were randomly assigned to treatment conditions and processed in small groups. They listened to the stimulus music over a loudspeaker, then filled out a brief questionnaire.

Subjects

One hundred eight ($n = 108$) undergraduate students (54 males, 54 females) participated in the study. Course credit was offered as an incentive. Ss were naive to the study's purpose. Ages ranged from 20 to 27 years, with a median age of 21.

Stimuli

The stimulus music was an original light pop-rock style composition produced in a digital sound studio at the University of Cincinnati's College-Conservatory of Music. The instrumental piece was 180 seconds in duration. It was scored for soprano sax, trumpets, strings, electric bass, and drums, and recorded at the moderately fast tempo of 120 BPM. The composition was produced using sequencer software and digitally sampled sounds as per Kellaris and Kent (1991). Bruner (1990) provides a brief, nontechnical explanation of this technology.

To manipulate loudness, volume levels were preset on the amplifiers that powered speakers in the listening rooms. Using a decibel meter (placed at room center), volume levels were preset to 60 and 90 dB to represent soft and loud conditions respectively. The 60 dB level is slightly softer than normal conversation, and typical of "background" music heard in retail environments. The 90 dB level is typical of "foreground" music. A post-test manipulation check verified the subjective difference between these volume levels on a seven-point loudness scale (1 = soft, 7 = loud). The 60 dB treatment produced a mean rating of 3.68 and the 90 dB treatment a mean rating of 5.60 ($t = 9.73$; $p < .001$).

Procedure

Ss were randomly assigned to treatment groups upon arrival at a behavioral lab. An equal number of males and females was assigned to each loudness condition. Groups were directed to separate sound-

proof listening rooms for concurrent processing. There were no more than eight Ss in any given room during each session. They were instructed not to talk, and told to leave the questionnaire face down until the music stopped playing. Unobtrusive observation of the Ss during the procedure found no violations of these instructions. After the music stopped, Ss completed the questionnaire. Ss anticipated "opinion questions" about the music they heard, but did not anticipate duration estimate or perceived pace items.

Measures

The dependent measures included a duration estimate item and a perceived pace scale. The duration item asked respondents to "please estimate how long the music lasted." Blank spaces labeled "___ minutes and ___ seconds" were preceded by the prompt "I estimate the music I heard lasted for about:" This standard measure has been used by many psychological time researchers (Fraisie 1984; Hornik 1984; Zakay 1990). The pace measure was a single-item seven-point semantic differential scale with end points labeled "slow" (1) and "fast" (7), preceded by the prompt "The music I heard was:" This item was taken from Kellaris and Kent (1991).

Both dependent measures were embedded among dummy items relating to the music. The duration measure preceded the pace scale. The filler items used the same response formats as the dependent variables, including sentence completion (e.g. "A good name for this piece of music might be ___"), and seven-point semantic differential scales (e.g. "Harmonious/Dissonant").

The questionnaire also included the previously described manipulation check item, and items relating to gender, age, musical preferences, and training.

RESULTS

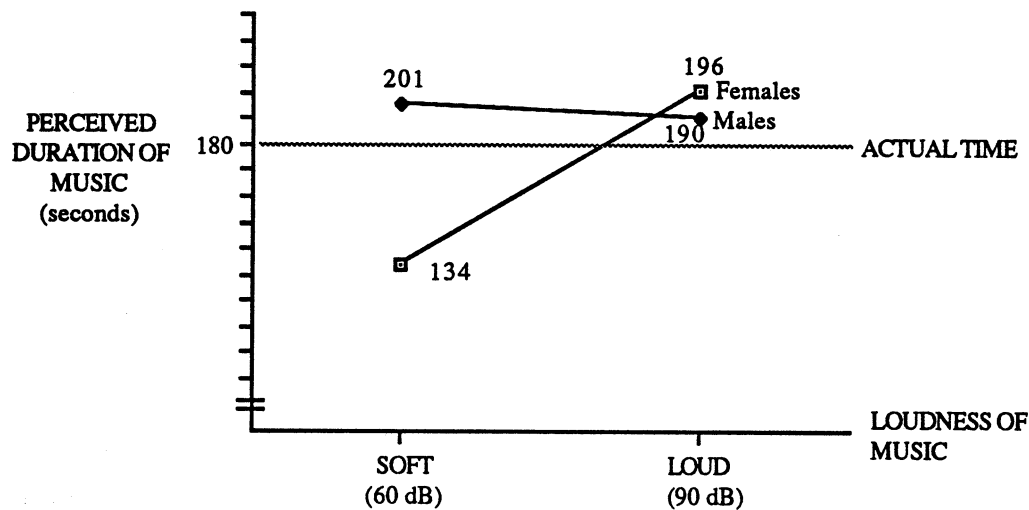
Perceived Duration

Retrospective duration estimates of the three minute musical piece ranged widely, from thirty-five seconds to over seven minutes. The median estimate was exactly three minutes (180.00 seconds). This is consistent with previous research which found duration estimates to vary widely about an accurate central tendency (Fraisie 1984). Whereas females tended to underestimate actual time by about fifteen seconds ($X = 165.41$), males overestimated actual time by the same margin ($X = 195.61$).

ANOVA results support Hypothesis 1. There is a significant main effect of loudness on perceived duration ($F = 3.90$, $d.f. = 107$, $p = .05$), although the magnitude of the effect is fairly small (omega squared = .02). The effect is in the expected direction. Louder music was generally perceived as longer in duration ($X = 193.17$) relative to softer music ($X = 167.85$).

Hypothesis 2 was also supported. There is a significant two-way interaction of loudness with gender on perceived duration ($F = 8.26$, $p < .005$). The magnitude of this effect is .06 (omega squared). See Figure for illustration.

FIGURE
Interactive Effect of Music's Loudness and Gender of Listener on Duration Estimates



$F = 8.26, p < .005$
 $\omega^2 = .06$

The loudness of the music has a positive effect on the duration estimates of females ($t = 3.23, p < .002$). Loudness has a slight decremental effect on males' time perceptions, although this is not statistically significant ($t = -.67, n.s.$). While the time estimates of males and females differ significantly under the soft music condition ($t = 3.97, p < .001$), they converge under the loud music condition ($t = -.26, n.s.$).

Perceived Pace

Pace ratings ranged from three to seven on the seven-point scale, with a mean rating of 5.41. Females tended to perceive the pace as slightly faster ($X = 5.52$) relative to male listeners ($X = 5.30$), although this was not a statistically significant difference.

Hypothesis 3 was supported. There is a significant main effect of loudness on perceived pace ($F = 6.19, p < .014$), with louder music perceived as faster ($X = 5.61$) than softer music ($X = 5.20$). The magnitude of this effect is .045 (omega squared).

Hypothesis 4 was not supported. Although there is a slightly sharper increase in perceived pace across loudness conditions among females ($X_{\text{soft}} = 5.22; X_{\text{loud}} = 5.81$) than among males ($X_{\text{soft}} = 5.19; X_{\text{loud}} = 5.41$), this effect is not statistically significant ($F = 1.28, n.s.$).

DISCUSSION & CONCLUSION

This study examined the influence of music's loudness and gender of listener on two aspects of temporal experience. Experimental findings generally supported our hypotheses. Louder music augmented both perceived duration of a time interval and

perceived pace of the stimulus event. Gender had a moderating influence in that the effect of loudness on perceived duration was significantly more positive among females.

These findings suggest that consumers' time perceptions may be influenced by manipulating atmospheric features such as music. This has several practical implications. For example, marketers may be able to diminish the perception of time passage while customers are in checkout lines or waiting areas by making appropriate adjustments in the volume of environmental music. Given the main effect of loudness on perceived pace, it may be possible to use music to mitigate consumers' feelings of being "rushed" in certain situations, such as dining at restaurants.

Contrary to our expectations, gender did not moderate the influence of loudness on perceived pace. The expected effect might emerge over a wider range of loudness than that used in the present experiment; however, we believe our loudness levels represent what consumers typically encounter in the world outside the behavioral lab. If music needs to be louder than 90 dB for loudness to interact with gender, this interaction would have little practical relevance for marketing applications.

It should be recognized that the generality of these findings is constrained by several limitations. Each of these limitations suggests a possible direction for future research. First, our study examined listeners' experience of duration in retrospect. Several authors have mentioned possible differences between the experience of duration in passing versus the remembrance of a time interval (e.g. Block 1990). Our retrospective measure of perceived time captures the remembrance of a time interval, not the

"psychological present" as it occurred. While both aspects of temporal experience may influence consumptive outcomes (e.g. satisfaction with a store), we expect consumers' retrospective judgments to have a greater influence in the long run.

Second, the forced exposure condition may have resulted in more attentive listening than would be typical in retail environments. It is not certain how (if at all) the exposure condition might have influenced the results; however, to test the generality of our findings, the study should be replicated using a more passive exposure to the stimulus music.

Third, an additional limitation may stem from the procedure. The ambiguous instructions may have encouraged subjects to evaluate the music during its presentation. (Recall that Ss were told to listen to the music without being told the specific purpose.) Since "bad" music may seem to play forever and "good" music may seem to end too soon, an "evaluative mind set" could have contributed to temporal effects of the music.

Fourth, this study assumes a link between temporal experience and consumptive outcomes (e.g. satisfaction) but does not establish such a link empirically. This task must also be commended to future research.

In conclusion, evidence from this study suggests that consumers' perceptions of time can be influenced by music. Both the retrospective duration and perceived pace dimensions of temporal experience were augmented by increasing the loudness of music. Females were more sensitive to the effects of music's loudness on perceptions of time passage. Given the present findings, the effects of other musical properties, other listener characteristics, and other types of atmospheric variables should be explored in future research.

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Consumer Esthetics Outside the Lab: Preliminary Report on a Musical Field Study

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ABSTRACT

This paper reports preliminary analyses on a field study designed to explore responses to music as a function of its objective properties. Musical stimulus properties were manipulated in a quasi-experimental design using live music. Behavioral responses of audiences were unobtrusively observed. Hedonic response, operationalized as applause duration, was found to be a nonmonotonic function of musical tempo; however, the specific nature of this relationship varied across modes.

INTRODUCTION

Aesthetic objects can evoke numerous affective, cognitive, and behavioral responses in consumers of the "aesthetic experience." While some forms of aesthetic communication stimulate changes primarily in internal states (e.g. visual arts), other forms are strongly associated with overt behavioral responses. For example, musical performances often encourage audience participation in the forms of rhythmic hand-clapping, body swaying, dancing, singing along, shouting, and applauding. These common forms of participation in the music-consumptive experience are shared across many cultures.

Most previous studies in consumer esthetics have focused on affective and cognitive responses to aesthetic stimuli (e.g. Anand and Holbrook 1986; Kellaris and Kent 1991). The majority of these studies were conducted as controlled experiments involving forced exposure to aesthetic stimuli in laboratory settings. In many cases, artificial stimuli such as "tone sequences" (Crozier 1974) or digitally synthesized music was used.

While lab studies can offer valuable insight into the influence of music on consumers, it would seem desirable to study music where it actually touches the hearts and lives of listeners. As Pavelchak et al. (1988) stated, a real world setting is important because "context is an integral part of emotional experience and because results obtained in laboratory settings need to be externally validated" (p. 360).

The present study examines behavioral responses to an aesthetic object -- Greek music in this case -- in natural settings. This preliminary report focuses on the influence of two structural properties of music (tempo and modality) on hedonic response as measured by applause duration. Tempo and mode were selected for study because of their theoretic and practical importance as "design features" of musical "products." This study combines elements of previous consumer research to produce a unique contribution. Whereas previous field studies have examined influences of music as an environmental background feature (e.g. Milliman 1982, 1986; Yalch and Spangenberg 1990), and controlled lab experiments have examined self-reported responses to music as a focal stimulus object (e.g. Anand and Holbrook 1986;

Kellaris and Kent 1991), the present study examines a behavioral response to music in natural settings where music is the focal stimulus object.

BACKGROUND & HYPOTHESES

As Bruner (1990) states, "music is not simply a generic sonic mass, but rather a complex chemistry of ... elements" (p. 94). Music is composed of multiple time-, pitch-, and texture-related variables (Dowling and Harwood 1986). Bruner proposes that musical variables are capable of producing main and interactive effects on consumers' thoughts, feelings, and behaviors. There is scattered evidence that supports this proposition, but Bruner concludes that "at this time the relevant body of literature is still meager" (p. 102). More research relating musical variables to listeners' responses is needed.

Among musical variables, tempo (the speed or pace of music) is believed to make a particularly important contribution to music's aesthetic character (Hevner 1937; Rigg 1940). While some studies report a positive linear relationship between tempo and affect (e.g. LeBlanc and McCrary 1983), there is ample reason to expect a nonmonotonic relationship (Anand and Holbrook 1986). Theory suggests that positive affect should be greatest at a moderate level of arousal (Wundt 1874; Berlyne 1974). Since arousal is closely linked with stimulus intensity, variation in affect can be anticipated across stimulus patterns (Vitz 1966).

This principle can be applied to musical stimuli. Specifically, very slow or very fast musical tempi should produce less positive affect than a moderate pace. Thus, across a wide range of musical examples, one might anticipate a nonmonotonic relationship between tempo and hedonic response. Although this study is exploratory in nature, there is sufficient basis to hypothesize the following general relationship:

H₁: There will be a significant nonmonotonic relationship between musical tempo and hedonic response of listeners.

Furthermore, tempo may interact with other musical variables (Bruner 1990). A recent lab study by Kellaris and Kent (1991) found that the effects of tempo depend on the "modality" (key) of the music. Modality refers to the configuration of intervals between pitches that comprise a musical scale (Apel 1973). The influence of tempo on music's perceived appealingness differed across major, minor, and atonal modes in the Kellaris-Kent experiments. Given the expectation of a positive correlation between perceived appealingness and behavioral manifestations of hedonic pleasure, the moderating effect of modality should generalize to the tempo-applause relationship in a natural setting. Thus:

H₂: Musical modality will moderate the influence of tempo on hedonic response.

The present study examines the influence of tempo and modality in the real world beyond the behavioral lab, using unobtrusively observed behavioral measures of hedonic response to live Greek music. Greek music was chosen because it employs a wide range of tempos and modes, and because it customarily involves active audience participation representing a broad range of overt behaviors (Holst 1975). The focus of this preliminary report, however, is solely on applause. Applause is a simple indicant of hedonic response which is nearly universal across musical audiences.

METHOD

Overview

The purpose of this study is to examine the influence of objective stimulus properties of music on audience responses in natural settings. Songs were selected from the standard Greek repertoire to manipulate musical variables in a quasi-experimental design. These songs were performed live at six different social events in hellenic communities in the United States. Behavioral responses of audiences were unobtrusively observed and recorded by the author, who participated as a musician in an orchestra. Musical properties and outcome variables were coded by experts and data were analyzed using the individual song performance as the unit of analysis.

Subjects

Audience members at six events served as subjects. The events included an AHEPA conference ball, two Greek Orthodox wedding receptions, and outdoor Greek Festivals in three southeastern cities. Audience sizes ranged from 200 guests at one wedding reception to over 1000 at the outdoor festivals. Subjects were not told that their behavior was being observed.

Stimulus Materials

Forty songs from the standard Greek dance music repertoire were used to manipulate musical properties. The songs, performed at each of six events, included traditional and modern pieces, both *laiki* (urban) and *demotiki* (rural mainland and island) genres, representing multiple dance rhythms (e.g. *calamatiano*, *syrto*, *tsamiko*, *syrtaki*, etc.). About a third of the songs were sung and the remainder performed as instrumentals. Most of the songs were familiar to Greek audience members, as supported by the observation that many "sang along" with the tunes, including those performed instrumentally.

At each performance the songs were presented in one hour "sets," with a brief pause between selections and a break of ten to fifteen minutes between sets. Each set consisted of about ten songs. Song durations ranged from just over one minute to almost seven minutes, with a median time of about 3.5 minutes. The order in which the songs were played varied across performances.

The individual song performance was the unit of analysis. Some cases were lost due to technical problems with recording equipment, and some could not be used due to missing data. The usable sample included 192 complete observations.

Procedure

The stimulus songs were performed by Nick Demos and the Greek Islanders, a Greek-American musical group that performs predominantly in the southeastern United States. The instrumentation of the orchestra included an eight-stringed electric *bouzouki* (played by the author), clarinet, electronic keyboard, bass, and kit of drums, including middle-eastern percussion instruments (e.g. *doumbek*).

The music was preselected and the sequence of performance determined in cooperation with the orchestra leader. Each performance was unobtrusively tape-recorded using a Toshiba RT-7016 to facilitate coding at a later time.

Measures and Coding

Independent variables included the following objective measures of musical stimulus properties: (X1) tempo, coded in beats per minute (BPM), (X2) duration of song, coded in seconds, (X3) meter, coded categorically as "even" (duple meter), "triple," or "odd/mixed," (X4) modality, coded categorically as "major," "minor," or "other" keys, (X5) presence of lyrics, coded as "1" for vocals and "0" for instruments, (X6) instrumentation, coded categorically according to which instrument was the principal melodic or solo instrument for a given song, and (X7) dance type (i.e., *calamatiano*, *syrto*, *tsamiko*, etc.), also coded categorically. These variables are a representative subset of the cantometrics taxonomy (Lomax 1976) used in empirical ethnomusicological research, and are similar to the set used by Stout and Leckenby (1988) in their ad music study, with obvious ethnic adaptations.

Both the researcher and a doctoral candidate in Musical Arts coded the independent variables for each song by listening to audio recordings of the performances. A Seiko digital metronome (SQM-342) was used to measure tempo in BPM. Disparities in coding judgments were reconciled by discussion.

To allow assessment of possible confounding effects, the following variables were also included in the data set: (X8) "gig," which specified the performance at which a given song was performed, (X9) "set," which specified the grouping in which a given song was performed, and (X10) order of presentation.

The dependent variable was hedonic response, measured as duration of applause in seconds. There is ample precedent in the social sciences for using applause as an indicant of audience pleasure or approval (e.g. Heritage and Greatbatch 1986). Applause duration was coded by the author by listening to tapes of each performance. As a check on the coding, a Musical Arts student coded a subset of the stimulus songs. There were no coding disagreements. The coding procedure was pretested using a video tape

recording of a live performance. Pretest data were *not* included in the data set analyzed in this study.

ANALYSES

Confounding Checks

Lack of experimental control is the bane of quasi-experimental field studies such as the present one (Campbell and Stanley 1963). Because of this inherent lack of control, data analysis began by performing statistical confounding checks. A variety of metric and nonparametric tests were used since the independent set includes categorical, ordinal, and metric variables.

Based on conventional wisdom, one might anticipate a natural rise ("warm-up" effect) and fall ("fatigue" effect) in hedonic response over the course of a performance. This effect should be independent of the influence of musical variables; however, serial order of presentation may be correlated with musical variables in the data set. Thus, the first confounding check explored the relationship of serial order to tempo and mode. No statistical associations were found.

Other confounding checks explored relationships between tempo, mode, and other musical characteristic. Not surprisingly, tempo was confounded with two other time-related variables: meter (the division of musical pulse into strong and weak beats) and song duration; however, neither meter nor duration was statistically related to applause duration after controlling for tempo. Since these variables have no effect on applause independent of their association with tempo, this confounding is not problematic. Tempo was statistically unrelated to the other musical variables.

A final confounding check explored performance context effects. Since audience sizes and composition varied across performances, performance context may have influenced responses to the music. Although the distribution of tempi and modalities varied slightly across performances, this variation was not statistically significant. This suggests that data can be meaningfully aggregated across performances.

H1: Tempo Effects

Based on earlier work in empirical esthetics (e.g. Fetchner 1876) and more recent work in consumer esthetics (e.g. Anand and Holbrook 1986), a nonmonotonic tempo-response relationship was anticipated. But, whereas previous studies have reported several different types of nonmonotonic relationships, the present analysis explored applause duration as a logarithmic, power, and quadratic function of tempo using OLS regression.

A significant nonmonotonic (quadratic) tempo-applause relationship was found. This finding supports Hypothesis 1. Applause duration peaked around 147 BPM, then diminished with further increases in tempo. The fit of this curve was modest but statistically significant ($R^2 = .06$; $F = 6.15$, d.f. = 192, $p < .003$), with significant contributions from both tempo ($t = 2.41$, $p < .02$) and tempo-squared ($t =$

2.21 , $p < .03$). Although the R-squared is low relative to those found in lab studies, this is what one might expect to find outside the controlled environment of the behavioral lab due to extraneous "noise" (McGrath 1981).

H2: Moderating Effect of Mode

Given Kellaris and Kent's (1991) finding that modality moderates the influence of tempo, separate analyses were conducted for major, minor, and "other" (neither major nor minor) modes. Findings support Hypothesis 2.

A significant quadratic tempo-applause relationship was found for the 51 songs pitched in minor keys ($R^2 = .22$; $F = 6.85$, $p < .002$), with significant contributions from tempo ($t = 3.48$, $p < .001$), tempo-squared ($t = -3.38$, $p < .002$), and a constant term ($t = -2.55$, $p < .02$).

For the 106 songs pitched in major keys, a different type of nonmonotonic tempo-applause relationship emerged. A logarithmic function produced the best fit ($R^2 = .07$; $F = 7.64$, $p < .01$). Only the log of tempo contributed significantly ($t = 2.76$, $p < .01$) to the prediction of applause duration.

Among the 33 songs in non-major or minor modes, no statistically significant linear, logarithmic, exponential, or quadratic relationship was found between tempo and applause duration.

To summarize, the data provide support for both hypotheses. There is a nonmonotonic relationship between musical tempo and hedonic response. The specific nature of this relationship varies by mode.

DISCUSSION & CONCLUSION

This study examined a behavioral response to an aesthetic object as a function of its objective properties in natural settings. It found significant nonmonotonic relationships between the tempo of live Greek music and hedonic response of audiences as measured by applause duration. The strength and nature of the relationship varied across different modes. Consistent with Kellaris and Kent's (1991) recent lab findings, tempo and modality were found to exert an interactive influence on hedonic response. Specifically, applause duration was a quadratic function of tempo for songs pitched in minor keys, and a linear function of the logarithm of tempo for songs pitched in major keys. There was no statistical relationship between tempo and applause for songs pitched in non-major or minor keys.

Over a fairly wide range of tempi (68 to 178 BPM), and across all modes, applause duration followed an inverted U-shaped curve as tempo increased. This is the "Wundt-curve" pattern predicted by psychobiological theory (Berlyne 1974; Anand and Holbrook 1986). The finding indicates that listeners prefer a moderate level of stimulation. This quadratic response pattern held for songs pitched in minor keys, but changed for major and other modes.

The loglinear response pattern for songs in major keys may be explained in terms of the relative informational complexity of major vs. minor modes. Minor modes contain altered pitches -- notes that

depart from the natural overtone series on which major scales are based (Apel 1973). In information theoretic terms, minor modes have higher "uncertainty levels" than major keys (Crozier 1974). Major keys, in contrast, may be characterized as less complex, or lower in uncertainty. For any mode, increases in speed create greater "informational density," i.e., more notes per minute. Affective arousal is, in part, a function of the amount of information contained in a musical stimulus (Berlyne 1974). Since major keys contain less varied information than minor keys, one might expect an eventual decrease in hedonic response to occur at a higher tempo. In other words, the observations in the present study may simply be on the "uphill" side of an inverted U-shaped "Wundt curve" for major keys. This explanation could be tested using a more extreme range of tempi; however, the songs in the present study represent a realistic range. Listeners are unlikely to encounter dance music performed at speeds greater than the max of 178 BPM in this study.

There was no statistical tempo-applause relationship among the non-major or minor songs. The relative novelty of these modes which used atypical combinations of pitches may have called more attention to the pitch dimension of the music, thereby mitigating effects stemming from the temporal dimension (i.e., from tempo). Alternatively, there may have been too few observations in this category to allow the presence of tempo effects to be detected.

The generality of these findings are limited by the design and setting. Since the data were collected in natural settings, rigorous experimental control was not possible. As a result, the design was nonorthogonal, cell sizes were uneven, and there was some confounding of independent variables with exogenous influences. The audiences were self-selected. But, whereas the present findings are consistent with theory and previous findings in consumer esthetics, the tempo-hedonic response relationship is apparently robust to the methodological perils of field settings.

Although a number of statistical checks were performed to assess potential confounding, these tests did not examine the relationship of objective musical attributes to qualitative variables such as subjective meaning. For example, faster and slower songs may have differed not only in tempo, but in meanings, associations, and imagery evoked.

Generality of findings is also limited by the type of music used in this study. Greek music tends to be highly rhythmic, and perhaps emphasizes the temporal dimension of music to a greater extent than do some other types of music. This may make temporal effects more likely to emerge. The effects reported here may generalize to other highly rhythmic forms of music, such as rock, hip-hop, or reggae, but may not generalize to all styles of music.

Having recognized these limitations, some preliminary implications can be drawn. The first implication concerns external validity. This study demonstrates the external validity of laboratory experiments that found objective properties of sound

to influence consumers' responses to music. It is important to verify that such relationships exist outside the artificial world of the behavioral lab.

Second, the substantive findings on tempo's influence hold practical implications for parties who use music to influence consumers. There may be an optimal tempo at which hedonic response is maximized for different types of music. Perhaps the design features of music in ads or in retail environments can be "aesthetically engineered" to optimize music's positive influences on listeners.

Third, the finding on the moderating role of modality suggests that time- and pitch-related musical properties should be considered jointly. Several studies in marketing (e.g. Milliman 1982, 1986) have varied a single property of music without considering possible interactive influences. As Anand and Holbrook (1986) suggested, "The term 'music' denotes a wide range of stimuli ... that hang together in an extremely complex gestalt. One pulls apart this gestalt only at one's peril" (p. 655).

This study suggests several possible directions for future research. Certainly other types of music and other audiences must be studied to test the generality of the psychobiological principles underlying the music-aesthetic experience. While applause is probably an important indicant of an audience's pleasure, many other behavioral responses could be studied. It would be interesting to observe audience behaviors such as facial expressions, finger tapping, or even yawning. Other dimensions of applause could also be investigated, including loudness, reaction time or response latency, and applause "density," i.e., portion of audience applauding.

As consumer research efforts often do, the present study seems to raise more issues than it can address conclusively. It offers only one small tile to the Byzantine mosaic of consumer esthetics. Future research must contribute more "tiles" before a clearer picture of the influences shaping the music-hedonic consumptive experience can emerge.

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To Choose or Not to Choose: This Is The Question

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ABSTRACT

The question of how people choose from a set of alternatives has been extensively examined at the expense of addressing another interesting and related issue: *whether* or not to choose from a given set of alternatives. The theme underlying normative theory of consumer choice emphasizes that consumers maximize outcome utility. The assumption is that people arrive at an overall value (utility) by combining a vector of attributes or outcome sequences for each option. For example, when selecting from multiattribute alternatives, the vector of product attributes is reduced to a scalar called utility that is maximized. Similarly, consumers selecting between extended sequences choose the plan that maximizes the discounted value of the component outcomes. The findings presented here argue against the adequacy of the classical utilitarian view that decisions are evaluated solely on the basis of their ends rather than their means. We test this general premise for two consumer decision making scenarios: preference for not choosing and choice between extended sequences. This session shows that the process of deciding influences choices in a manner such that normatively equivalent outcomes result in different preference orders. This paper summarizes the session by providing a brief overview, and by describing representative ideas from the four papers comprising the session.

OVERVIEW

Marketers have extensively examined the decision rules that consumers use to choose from a given set of alternatives (Bettman 1979). One aspect of consumer choice that has received little attention pertains to the question of how consumers decide whether they are ready to choose or even more fundamentally, if they want to make a choice. As we know from our everyday experience, a question that consumers often face is not which alternative to choose but whether or not to make a choice. For example, a potential vacationer may choose between vacation spots, collect more information, or simply decide to postpone the holiday (Corbin 1980). It is somewhat surprising how little empirical attention has been devoted to this issue.

Consumers may sometimes choose to delay choice if the alternatives are unfamiliar or undesirable. Greenleaf and Lehmann (1991) identified five general factors that causes delay in consumer decision making. Delay arising from many of these factors, such as uncertainty, task avoidance, and risk of product performance can be justified on normative grounds. In such cases, the option of not choosing can be rationalized by a more complete inventory of individual preferences, one that captures the utility of not choosing. Such a specification of not choosing can be incorporated into the general framework of multiattribute utility theory (MAUT).

One case of preference for not choosing that is problematic for normative theory to handle arises when consumers are less likely to choose when a choice situation involves more than one attractive alternative. The cornerstone of economic viewpoint is that providing consumers with additional attractive alternatives can not decrease utility, and therefore, can not decrease the preference for choosing. In other words, the choice utility cannot be less than the utility of the most attractive option in that set (Meyer 1981). This leads to the obvious conclusion that having fewer options should never be more attractive than having more options. The first two papers question this premise and empirically show that people may prefer a restricted choice set to a larger one. The papers show that adding alternatives to increase choice may affect the willingness as well as the ability to choose. The resulting violation of the normative theory can not be accommodated within the classical framework.

One reason why consumers prefer to not choose when the choice set is expanded to include more attractive options is conflict. The increase in the number of available alternatives increases conflict (Berlyne 1957). Conflict arises because choices typically involve tradeoffs between attributes that appeal to different values. The increased conflict due to more number of attractive alternatives induces greater indecision, lowering the likelihood of choosing (Tversky and Shafir 1991). The difficulty of deciding between alternatives is not captured by the classical framework (e.g., the weighted additive utility model) which assumes that people have well defined attribute weights or preferences that are mapped onto the particular choice situation (see Shugan 1980 for a modified framework).

A second reason why people do not prefer to have a choice is when both alternatives are valued and there appears to be no clear reason to prefer one over the other. The rejection of the non chosen alternatives potentially induce feelings of responsibility, not considered in the classical framework. The feelings of regret are further moderated by the ease of imagining that the foregone alternative could have been selected (Kahneman and Miller 1986). When these emotions influence decisions before any consequences actually materialize, they are referred to as anticipatory regret. Thaler (1980) cites an instance of restricting choice even when restricting choice clearly has economic costs attached to it. For instance, members of the Israeli Army display a resistance to trading patrol assignments, even when it would be convenient for both individuals to do so, presumably due to anticipatory regret. The present view contends that a choice criteria in addition to the choice rule needs to be developed to determine if a choice is made. Furthermore, since consumers may not choose given attractive alternatives, cut off based strategies (e.g., conjunctive rules) allow us to infer when people will not choose, rather than when they will choose.

Since in usual choice situations consumers always have the options to search for more alternatives, an interesting issue that arises is whether consumers may sometimes voluntarily restrict the set of available options. Some evidence is found in the observation made by Thompson et al (1990) that participants in their study sometimes experienced a greater sense of freedom when placed in a restricted situation and gained a feeling of control by giving up control.

The second issue addressed in this session concerns the decision involving choosing between extended outcomes. Most economic analyses of preference between outcome sequences relies on the discounted utility model with a positive discounting function. According to this perspective, people should prefer desirable outcomes that occur as soon as possible and delay undesirable outcomes whenever feasible. However, Loewenstein (1985) showed that preferences for outcomes can also be affected by the utility from their anticipation. The utility of anticipation, positive for gains (savoring) and negative (dread) for losses, has been shown to result in preferences for delaying desirable outcomes and accelerating undesirable outcomes.

An interesting extension addressed in this session is its application to the domain of risky choice. One could argue that for anticipation to kick in requires that the outcome occur with a high degree of certainty. Furthermore, since probabilities of outcomes can be described for the occurrence or non occurrence of an outcome, it is possible that savoring and dread are susceptible to framing effects. For example, a probabilistic desirable outcome could be described in terms of its probability of success or failure. The frame describing the probability of success would generate positive utility of anticipation whereas the frame describing the probability of failure will generate negative utility of anticipation. Some preliminary evidence for this phenomena in the domain of risky choice.

The utility of an extended sequence is not only evaluated by its discounted worth but is also influenced by the sequence frame. The discounted utility model computes the value of outcomes extended over time to arrive at a single value. An independent factor that may distort the discounted utility in reality is the degree of saliency. The outcomes that are concentrated would be more salient, and as a result, have a greater impact on computed value of a sequence, than outcomes that are diffused over a longer period. This allows us to understand why certain borrowing and saving plans are preferred over others even though their discounted utility as predicted by the normative model may be equal or even lower.

SUMMARY OF ABSTRACTS

The first paper "Choosing Not To Choose: Context and Task Effects on Indecision," by Ravi Dhar argues that an interesting phenomena that has been largely ignored in empirical studies of consumer choice is the topic of undecidability. The author explicitly incorporates the option of not choosing in the decision problems executed in an experimental

setting, just as consumers often do. The author argues that consumers often delay choices even when the available alternatives are desirable. The factors that influence the level of indecision, such as the degree of anticipated regret and conflict, are shown to moderate the willingness to choose. The degree of conflict and regret is manipulated by expanding the choice context. The choice context imparts utility to choosing, either positive or negative, thereby influencing the preference for choosing. These results violate normative theory which states that consumer preference should not be context dependent. The results also support the premise that the process of choosing influences the utility experienced from the outcomes.

An instance of indecisiveness occurs when consumers are unable to discriminate sufficiently between options. The author manipulates the degree of indecision by changing the choice context and the nature of the task. This is consistent with the viewpoint that choice is often based on reasons that are generated in support of one option over another (Slovic 1975). Normatively, this should not influence consumer willingness to choose as relative advantage has little implication for instrumental effect on the attractiveness of the alternative. The context effect on indecision is however consistent with the notion that consumer preferences are constructed in the process of choice (Payne, Bettman and Johnson in press).

The choice context is manipulated by increasing the number of attractive alternatives or by varying the difficulty of making attribute tradeoffs among available alternatives. The experiments show that willingness to choose differs across contexts. Furthermore, the effect of indecision is reduced if the task is changed to allow subjects to choose more than one option. The observed violations in axiomatic choice theory are explained in terms of the assumption that the two psychologically different states of indifference and undecidability map onto the same behavioral response. We discuss the implication of these results for marketers and outline other factors that may moderate indecision, and are to be investigated in future research, such as accountability and positive affect.

The second paper "Decision Seeking and Decision Aversion," by Jane Beattie, Jonathan Baron, John Hershey, and Mark Spranca questions the normative models of economic choice that assumes that people would always rather have more choices than fewer choices. They forward two constructs: decision seeking and decision aversion and identify the major determinants of the two constructs.

Decision aversion occurs when an individual prefers to give up the more preferred items to avoid making a choice. An example of decision aversion would be to prefer either of your children alone to be educated at a good private school, but to send both to the worse public school because you could only afford the tuition for one child and were unwilling to choose which child would be sent to the good school. The causes for decision aversion are examined and a strong argument is obtained based on subjects' fear of blame for poor outcomes as the major determinant.

Decision seeking involves a preference for the choice between two items that are not individually preferred to the single item. The main causes of decision seeking appears to be love of self-determination and desire to appear to cause good outcomes. The hypothetical role of the subject in the decision situation (e.g., doctor or a lay person) also affect the level of decision aversion and decision seeking, as do stable individual differences. These findings, the authors contend, argues against the descriptive adequacy of the classical utilitarian view that decisions should be evaluated solely on the basis of their ends rather than their means.

The third paper "Impact of sequence frames on borrowing and saving programs," by Drazen Prelec and George Loewenstein builds on the premise that intertemporal choice is strongly affected by the sequence frame, i.e., whether the relevant items are considered in isolation or whether they are perceived as part of a larger sequence. A central finding of this research is that when events are placed into a sequence, then the preferences of the representative individual become strongly oriented towards the future.

The present paper explores two hypotheses the sequence frame on consumer preference over borrowing and saving schedules. Decisions concerning purchase timing reveal consumer's utility for money which can then be used to predict choices in other settings. Whether this utility is experienced in a concentrated fashion or is diffuse over the lifetime of a durable is not considered fundamental to the analysis. Normative theory assumes that the pleasure or pain can be reduced the single dimension of utility.

The present research presents descriptive evidence that argues against the above premise. The first hypothesis states that the preference for different types of borrowing and saving programs depend on the degree to which the cash flows are psychologically coupled to the specific products. For savings programs, they predict a preference for a highly coupled arrangement, such as savings for a college tuition, rather than more loosely coupled ones, such as saving for some general category of expenditure. However, with borrowing programs, the loans that weaken the sequence frame and hence a preference for loose coupling would be more attractive. A loan taken out specifically to finance a recent vacation, for instance, should be unattractive whereas loans taken on credit card would be more attractive.

A number of explanations are explored for the observed patterns of preferences. For instance, the role of the sequence frame is affected by the temporal concentration (diffuseness) of the relevant costs and benefits (e.g., a vacation as opposed to consumer durable). The authors expect to show that concentration of benefits will increase the attractiveness of saving up for an item, and decrease the attractiveness of paying back for it. The reverse would be expected for consumer durables only if the loan program starts at the end of the life of the product, an unusual case.

The fourth paper "The Consumption of Uncertainty," by Dan Lovallo and Daniel Kahneman investigates the preference for the resolution of

uncertainty surrounding uncertain outcomes, that are not immediately resolved. The delayed resolution of uncertainty is the norm in decisions ranging from new product introductions to marriage. The authors draw together research from both risky choice and intertemporal choice, and describe how the experience of unresolved uncertainty systematically affects the attractiveness of a prospect.

The authors build on the concept of savoring and dread (Loewenstein 1985) that have been empirically demonstrated to accompany future riskless prospects into the domain of risky choices. The anticipations has been shown to affect the utility for the outcome in a consistent manner: dread for losses and savoring for gains. The authors argue that both disappointment and elation are influenced by prior expectations and only become relevant for sufficiently high probability events.

Drawing from the principle of loss aversion, the authors argue that disappointment and dread dominate savoring and elation. The anticipated utility from a positive but uncertain event depends on the outcome valence as well as the probability of occurrence. For example, dreaming about a 10% chance to win a tour of Europe may be fun (savoring), whereas a 90% chance of winning the same trip is reframed as a 10% chance of missing out (dread). These phenomena have implications for the timing of resolution for the uncertainty. The results show that people prefer immediate resolution of the uncertainty for the vacation when the probability of winning the vacation is high. However, when the probability of winning is small, people prefer to defer the timing of resolution. These results are replicated in the domain of losses. Furthermore, consistent with loss aversion, resolution timing for good outcomes are driven by disappointment whereas the timing of bad outcomes are largely determined by feelings of dread.

CONCLUSION

The research issues discussed here are consistent within the constructivist framework that argues that preferences or attitudes are not revealed but elicited in the process of making a judgment or choice. In the same way that preferences are ambiguous, consumer goals may also be imprecise and constructed in a given situation. Thus, the assumption made in hierarchical models of consumer choice, that the decision to choose is independent of which alternative to choose, may not always be valid. On the contrary, consumers may often decide whether or not to choose depending on the context. Furthermore, consumers may shift their preferences in the direction of alternatives that minimize conflict. This would provide a competitive advantage for the niche brand simply from the consumers manner of processing information (Carpenter, Glazer, and Nakamoto 1991).

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Good Guys Don't Wear Polyester: Consumption Ideology in a Detective Series

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ABSTRACT

Consumer researchers have studied consumption ideology in movies and television series. Best-selling novels have been recognized as mirrors of contemporary consumption values. This analysis focuses on another well-recognized medium of popular culture--the hard-boiled detective story. While previous research identified a secular/sacred dichotomy, this analysis identifies a bipolar opposition based on elements of taste and style. Analysis of three novels reveals themes which have been identified in social analyses of contemporary American culture. These themes of cognitive acquisition and lifestyle therapy suggest directions for further consumer research.

INTRODUCTION

Recent consumer researchers have analyzed popular media vehicles, such as films and television series, as myths which communicate and represent consumer social values and ideologies. This paper examines consumer ideologies in the contemporary detective story, focusing on texts from Robert B. Parker's popular novels featuring Spenser. Analysis is based solely on the novels; the television series, "Spenser for Hire," bore little resemblance to the original.

While a sacred/spiritual -- secular/profane opposition emerged from several film analyses (Hirschman 1987, 1988), a structural analysis of specific Spenser novels suggests a binary opposition relating to what Lears (1983) and Agnew (1983) call acquisitive cognition. Inept, tasteless consumption is associated with inappropriate social and family behaviors, while people who "know how to act" also consume appropriately. Mediating between these oppositions of appropriateness and inappropriateness are characters, actions and consumption which will be called incongruous: they know society's rules but break them deliberately.

THE DETECTIVE STORY AS POPULAR CULTURE

Friedman (1985) observes that best-selling novels can be useful vehicles to study consumer norms and values. Detective fiction "has long displaced the cowboy novel as the staple of American popular writing" (Winks 1980). An English professor writes:

"As the most popular of popular forms of fiction, and as a central mythology for the age of the individual lost in the crowd, the detective story serves as a barometer for our changing conceptions of ourselves, and as an important, perhaps even central, model for the more 'serious' fiction produced in our age." (McConnell 1988).

The genre mirrors American myths and aspirations (Winks 1980) and influences American values, such as values associated with alcohol consumption (Filloo 1986). The private detective is a contemporary hero figure (Rickman 1983), "a person of special powers, a shaman or even a savior" (Nelson and Avery 193, p. 465). In general, mythical heroes "tend to represent goals to be approached rather than definable human figures" (Norman 1969, p. 3). Similarly, detective heroes emerge *ex nihilo*, with minimal references to their past lives. Their characters contain elements of implausibility, such as Spenser's single name and his invincibility in slaying modern-day dragons.

Scholars of the genre tend to distinguish the hard-boiled detective, who gets involved in situations that end up in murder, from the cerebral detective uses clues to uncover the identity of a murderer. Examples of the latter include Sherlock Holmes and Nero Wolfe; examples of the hard-boiled school include Marlowe, the Continental Op, Lew Archer, Travis McGee, and Spenser. Spenser is immensely popular. According to one critic, he is also a "state of the art" example of the tough detective's evolution "from cynical, professionally efficient operator to observer and personification of the noblest popular insights of his day" (Gray 1984).

A STRUCTURAL APPROACH TO THE SPENSER NOVELS

Hirschman (1988, 1989) has identified structures in film and television vehicles based on a binary opposition between sacred/spiritual and secular/profane elements. In her analyses, sacred consumption is associated with attributes such as home-made, inexpensive, or close to nature. Sacred characters value loyalty, friendship and family.

When this approach (Levi-Strauss 1965, 1973) is applied to the Spenser novels, a bipolar opposition emerges based on elements of taste and style. The poles can be labelled "appropriateness" and "inappropriateness." Appropriateness is associated with suitability, goodness of fit, congruence, lack of artifice and wise choice. Well-fitting clothes, sophisticated food, and in general "knowing how to act" are appropriate. Inappropriateness is associated with a lack of taste or fit due to ignorance or ineptitude: overweight, sloppiness, clothing or furnishings in poor taste, and food that Levy (1981) would categorize as lower class. White bread and polyester are symbols of not knowing any better; in one scene, Spenser teases the police, "Don't get marshmallow fluff on those photos."

Mediating between the poles of inappropriateness and appropriateness are situations and people who can be labelled incongruous. Incongruity is associated with a lack of harmony which is deliberate, conscious, unexpected, even playful. A well-tailored suit is appropriate; a hard-boiled detective who knows how to cook is

incongruous. A corrupt police chief is inappropriate; a tough policeman who looks like a shoe salesman is incongruous.

Incongruities often derive from the juxtaposition of Spenser's consumption style with the qualities he shares with traditional genre hard-boiled dicks. For example, in *Ceremony*, he accepts teenaged April's determination to be a prostitute: "Her morals are her business." However, he wants April to be the "right kind" of prostitute--i.e., a knowledgeable consumer who knows how to eat in restaurants, order wine and dress appropriately. On a stake-out, Spenser stocks up for a long night--with feta cheese and Syrian bread, or with Hebrew national salami and pumpnickel.

In *Early Autumn*, where his philosophy is most explicitly stated, he says:

"Lots of people need certainty. They look around for the way it's supposed to be. They get a television-commercial view of the world. Businessmen learn the way businessmen are supposed to be. Professors learn the way professors are supposed to be. Construction workers learn how construction workers are supposed to be. They spend their lives trying to be what they're supposed to be and being scared they aren't." (pp 139-140)

Spenser, of course, is different. He seems to agree with his girlfriend's verdict: "I work too hard to thwart people's expectations" (p 140). To thwart expectations, one has to know what those expectations are.

Thus, the appropriate person knows the rules and follows them; the inappropriate person doesn't know s/he's violating the rules; and the incongruous person knows the rules and chooses to break them--even makes up new rules. These positions can also be defined in relation to abductive logic (Eco and Sebeok 1983; Holbrook 1987). Abductive logic involves reasoning from rule to case to result; to take Holbrook's example:

Rule: All people who drive Cadillacs are elite.
Case: Jane drives a Cadillac.
Result: Jane is elite.

Abductive logic will probably lead to accurate results when applied to instances of appropriate and inappropriate consumption, but will be less useful when applied to incongruities. The incongruous person deliberately creates misleading clues--thwarts expectations, as Spenser would say. It is hard to imagine a rule about men who wear pastel colors, soft fabrics and lavender silk shorts that would encourage one to infer that the wearer is Spenser's associate--the dangerous leg-breaker Hawk.

HEROIC CHARACTERS

Three figures recur in the series: Spenser himself, his ally Hawk and his girlfriend Susan Silverman. Like the stereotyped hard-boiled dick, Spenser has a remote past which features the standard

firing from the police force for insubordination. He wise-cracks, philosophizes and imposes his own order on situations. However, while the classic private eyes were satisfied with coffee, hamburgers or steaks, Spenser's meals are described in loving detail; in some novels, food descriptions appear every ten pages, with leisurely digressions for menus and recipes (Saylor 1984). While the personal pleasures of classic private eyes were limited to drinking, women and "self-destructive" activities (Porter 1981), Spenser reads good books, follows sports teams, creates gourmet meals even when alone, and has a steady girlfriend.

The stereotyped tough private eye doesn't color-coordinate his wardrobe, or wear Brooks Brothers shirts, but Spenser does. Spenser's clothes fit because he knows where and how to shop ("You don't have much choice for a 48 long") and because he is in shape. He doesn't need expensive tailoring to cover flaws in his physique, like the Father in *Ceremony*. However, Spenser emphasizes functionality: a linen jacket is appropriate for the suburbs, blue jeans for working. He jokes about covering up his gun because it doesn't match.

Spenser's ally Hawk, the hit man and leg breaker, also has heroic properties. His appearance is striking, his powers seem limitless ("Could Hawk guard you alone? Hawk could guard Yugoslavia alone," Spenser says in *Early Autumn*) and his background is even vaguer than Spenser's. He needs his mystery: "We could not invite Hawk for Thanksgiving," Spenser says in *Ceremony*; he'd be "compromised." Hawk values friendship and loyalty: he will risk his life to help Spenser without asking why; when an out-of-town hood offers Hawk money to kill Spenser, Hawk not only refuses but offers to stick around for awhile. However, he has no qualms about cold-blooded killing for hire.

Hawk drinks Taittinger champagne and drives a Jaguar. He dresses impeccably with full awareness that he violates role expectations. His taste features pastel colors and soft fabrics, such as a powder blue suit and pink silk shirt (*Promised Land*); a white cashmere sweater with white denim jeans (*Ceremony*); a dark gray three-piece pinstripe suit, with diamond accessories (*Ceremony*). He takes exquisite care of his clothes and he wears lavender silk shorts (*Judas Goat*). When Hawk wears a pink suit, Spenser drily notes that nobody comes up to call him a sissy (*Early Autumn*).

Susan Silverman, Spenser's girlfriend, is presented as a heroine. Susan is good-looking, sexy and intelligent: her clothes, always well-suited to the occasion, show evidence of fashion in good taste and her make-up is described as "flawless." She eats "with style" and her personal interaction skills are phenomenal. Even Hawk likes Susan: she is the only person he shows any feeling for (*Early Autumn*).

While Susan's consumption is thoroughly appropriate, she does show elements of lifestyle incongruity. She lives in a conservative neighborhood in a conservative suburb, where she works as a high school guidance counselor, yet she dates a hard-boiled private detective. Although she gets exasperated when Spenser brings his cases home (sometimes literally), she is cool under fire. After a

EXHIBIT

God Save the Child:

INAPPROPRIATENESS	INCONGRUITY	RESOLUTION
cocktail party after murder mother dresses for kidnap scene mother admires kidnapper's apartment	Spenser finds child, beats up kidnapper	hint of therapy

Early Autumn:

INAPPROPRIATENESS	INCONGRUITY	RESOLUTION
father sends thugs to get son mother tries to seduce Spenser mother sends son to dinner when he comes back mother has young boyfriend "Disco Steve"	Spenser uses parents' get desired weaknesses to solution	Parents leave son alone Father to support son's dancing Hint of Spenser as surrogate father or lifestyle therapist

Ceremony:

INAPPROPRIATENESS	INCONGRUITY	RESOLUTION
father overweight house furnished in sets badly-dressed educator is sex offender	Spenser finds April, protects her from arrest	April referred to high class madam

machine gun sprays her Bronco in *Early Autumn*, Susan dusts herself off, begins fixing dinner and asks Spenser calmly, "What was that all about?"

ANALYSIS OF THREE NOVELS

This paper will focus on the consumption ideology articulated through these dimensions in three Spenser novels: *God Save the Child*, *Early Autumn* and *Ceremony*. The plot similarities of these novels suggest that they may be analyzed together, analogous to three versions of a single myth. The Exhibit demonstrates their common structure. Each novel opens with a scene of inappropriateness. Inappropriate actions are paralleled by inappropriate consumption behaviors. The victim moves from inappropriateness to appropriateness with the help of Spenser and Hawk, the incongruous heroes, and sometimes with incongruous actions.

In each novel, the young victim's transformation from an inappropriate state is developed (*Early Autumn*) or suggested as a future development (*God Save the Child* and *Ceremony*). When read in order of publication, the three novels show a progression away from traditional family values toward Spenser's own code. In *God Save the Child*, a family is reunited; in *Early Autumn* a son is

separated from his family, but financially supported in an endeavor that is antithetical to parental values; in *Ceremony*, a fifteen-year-old girl is permanently estranged from her family, engaging in an occupation antithetical to societal values but which Spenser finds suitable to her own. The next section of the paper will provide plot summaries, highlighting examples of appropriateness, inappropriateness and incongruity.

PLOT SUMMARIES

God Save the Child

Distressed parents Marge and Roger Bartlett ask Spenser to find their missing teenage son, Kevin. Their concern accelerates after they receive ransom notes from an alleged kidnapper. They are presented as inappropriate parents. Marge's acting, art, and sculpture lessons have enhanced her self-centeredness rather than evoked creativity; to pay for her activities, Roger works so hard he has little time for family (Geherin 1980).

The Bartletts' parental ineptness is paralleled by their inappropriate consumption behaviors:

Residence: "You don't often see a red refrigerator."

Entertainment: While Kevin is still missing, the family lawyer is murdered in the Bartletts' living room. Marge decides not to cancel a dressy, catered cocktail party, which is held only a few hours after the murder, on the very spot where the body was found.

Clothing: As narrated by Spenser: "Just below [Marge's] rib cage I could see the little bulge where her girdle stopped and the compressed flesh spilled over the top."

Dressing for the inappropriate party, reference is made to her "uninterrupted gleam of make-up," and "Everything fitted very snugly, and one got a sense of Latex stretched, of pressures tightly contained. Her bright blond hair was...doubtless sprayed in place."

Roger, the father, wears blunt-toed stacked-heel shoes "that made him walk a little awkwardly. His tailor looked to be Robert of Hall."

While investigating Kevin's high school, Spenser meets the attractive guidance counselor, Susan Silverman, who remains his girlfriend throughout the series. Spenser soon learns that Kevin has disappeared voluntarily and has staged the kidnapping. Marge Bartlett displays more inappropriate consumption behavior:

Clothing/Grooming: Spenser arrives to take Marge to pick up her son from the alleged kidnapper. The mother's first reaction is, "But my hair's a mess." Spenser underlines the inappropriateness of Marge's attitude: "We're not going dancing." Undeterred, Marge changes to a double-breasted blue pin-striped pants suit with a blue and white polka-dot shirt and 3-inch platform shoes, appearing fully made up and "hair stiff with spray" (*God Save the Child*, p. 307).

Situation: Spenser shows the Bartletts the apartment where the kidnapper, Vic Harroway, has been staying with their son; Marge comments approvingly on Vic's attractiveness and the neatness of the apartment.

At the novel's end, Marge and Roger Bartlett tearfully reach out to their son. Transformation is suggested when Susan says that this family relationship may be transformed through therapy, although there are no guarantees. The ending of this early novel suggests that appropriateness will be achieved through the traditional family structure. The inappropriateness of the family is contrasted with appropriateness of an ideal family.

Early Autumn

Early Autumn appeared about eight years after *God Save the Child*. Spenser is hired by Patty Giacomini to get her son, Paul, back from her divorced husband Mel. The father's parental inappropriateness is suggested by the presence of his attractive young mistress as well as his use of hired thugs to gain

illegal custody of his son. His ill-fitting polyester clothing is also inappropriate; Spenser teases, "You can't look tough when you're wearing Ban-Lon."

Spenser finds Paul easily by following the father's mistress. Paul is brought back to a scene as inappropriate as the Bartletts' cocktail party in *God Save the Child*. The mother's young, self-consciously-dressed boyfriend (whom Spenser labels "Disco Steve") expresses inappropriateness not only by his presence but by his genial, country club greeting to Spenser ("Good to see you"). Patty hands Spenser \$20 to take Paul to dinner as she is "too busy." Her clothing is loud, featuring pink and lavender colors in carefully selected outfits.

A few months later, Spenser is hired to guard mother and son from thugs who have been hired by the father. Spenser's incongruity contrasts directly with Patty's inappropriateness during his sojourn as household bodyguard: the hard-boiled detective is a better parent than the real mother. Patty doesn't bother to make breakfast for her son and leaves him alone on weekends while she goes to New York; Spenser tries to help the boy. Patty awkwardly tries to seduce Spenser, who dismisses her effort as "contrived;" Spenser remains faithful to Susan. Patty serves Boursin cheese and shredded wheat squares to her boyfriend, while Spenser shows Paul how to order and eat Szechuan food. Patty's "idea of fancy cooking was cheez-whiz on broccoli," but Spenser prepares innovative gourmet meal from odds and ends he finds in the cupboard.

After husband Mel hires thugs to invade Patty's home, Spenser agrees to hide out with the boy on Susan's country property in Maine. The staging of the scene reinforces Patty's inappropriateness as a mother: Patty can't take Paul because she's hiding out with boyfriend Steve, who doesn't like Paul. ("Is he afraid his cashmere sweaters will wrinkle?" Spenser wonders.)

Spenser expresses his concerns. The kid doesn't know how to do anything. He's not especially bright or good-looking. His clothes don't fit. He can't order in restaurants. Susan, his guidance counselor girlfriend, asks, "Why is it so important to know how to order in a restaurant?" Spenser's answer holds the key to his philosophy: knowing how to order in a restaurant is a sign that one has been taught how to act in life.

Up in Maine, Spenser teaches Paul how to cook, work out, perform carpentry tasks, listen to music and appreciate good books. He takes him to Louis of Boston to buy clothes, to North Conway to buy running shoes. This section of the novel further clarifies the way Spenser's consumption values clearly differ from sacredness in a television series (Hirschman 1988). While *Dynasty/Dallas* suggests that sacredness is identified with the outdoors, Spenser admits he'd rather be in the city. While *Dynasty/Dallas* characters fill traditional gender roles as they approach sacred consumption, Spenser thoughtfully encourages Paul to value androgyny. As Paul quotes his traditional father ("Men don't cook" and, "Only fags do ballet") Spenser corrects him ("He was only half right" and, "I don't know about their sex

lives, but they're magnificent athletes)." By the end of the summer, Paul has acquired muscles, carpentry skills, and a sense of direction--and he knows how to order in a restaurant.

While some reviewers dismissed Spenser's role as a "baby-sitter," Spenser appears to have practiced what Cushman (1990) calls life-style therapy. Cushman suggests that contemporary psychotherapists often serve as models for their clients, filling the clients' empty selves with values and activities. Advertising, he notes, serves a similar purpose by holding out consumption ideals for the uncertain. Both the lifestyle therapies described (though not necessarily advocated) by Cushman (1990) and Spenser's theories suggest that knowing how to consume can lead to a better life: salvation can be found in consumer socialization.

While Spenser is hiding out with Paul, Patty runs out of money and Spenser realizes that neither parent wants the boy. The novel's resolution is filled with incongruities. Spenser plans to blackmail both parents to help Paul. In return for silence about some arson insurance scams, the father agrees to support Paul's education. Paul chooses a dance-oriented school--a choice that must have appalled the father who dismissed male dancers as "fags." Spenser uses the mother's parental inappropriateness to help Paul: the weekend "shopping" trips alone in New York turn out to be occasions of sexual indiscretions which must be kept secret from Mel, the husband, and especially from Steve, the boyfriend.

Thus, using the parents' own ineptness as leverage, Spenser replaces the traditional family structure with a distant, financially-based relationship. He is an incongruous social worker. Spenser allows Mel Giacomini to continue his mob-related business: "I don't want him in jail. I want him earning money to support his son."

Ceremony

Ceremony appeared two years after *Early Autumn*. Once again, inept, uncaring parents call Spenser, this time because they believe their daughter, April Kyle, has run away to "turn tricks" in the Combat Zone. The father, Harry, claims April is no longer his daughter. Guidance counselor Susan encourage the parents to hire Spenser to find April, saying, "You can't reject a child simply because she doesn't please you." Susan's words convey an image of returning unwanted items to a store, suggesting that April has become a piece of merchandise to her father as well as her clients. The mother, Bunni, is presented as tearful and ineffectual. In the language of twelve-step programs, she enables April's drinking. A cop tells Spenser he's brought April home drunk several times; the mother will "take her in and clean her up...so the old man won't know."

Once again, inappropriate consumption parallels inappropriate parenting:

Residence: The Kyle house ("a perfect house in a perfect development") features furniture in "massive Mediterranean oak," and "you could

tell they'd bought it all at once." Spenser speculates:

"I was willing to bet my new blackjack that there was a dining room set in the living room and at least four bedroom sets upstairs. The cellar probably had a cellar set, all coordinated with the furnace." (p 10)

Spenser sees the whole neighborhood this way:

"new colonial houses....expensive variations of the same architectural plan like the Kyles' furniture on a larger scale, a neighborhood set: functional, costly, neatly organized, and as charming as a set of dentures." (p 25)

Clothing: The mother, Bunni, wears pink pants, shirt and shoes. The father's expensive clothes do not compensate for his overweight appearance. Spenser shows his own awareness of the father's expensive suit: "Fat as he was, there was no gap between the vest and the pants."

Spenser learns that April's entry into prostitution was facilitated by a corrupt educational administrator, Poitras, whose appearance also parallels his professional inappropriateness: "an ugly fat guy...dresses like Woolworth's;" his home features mass-produced paintings of mountains.

Both Paul in *Early Autumn* and April in *Ceremony* are shown initially as lost teenagers, shabbily dressed, neglected by their families. While Paul is transformed by the end of *Early Autumn*, April remains unchanged. She resists both Spenser's offer of release from her "employers" and his offer of high-quality food: she is dismayed to learn that there is no white bread in Spenser's apartment, where she is taken after Poitras is arrested. Spenser realizes that April lacks motivation to leave prostitution, but he does not want her back on the streets with a pimp. Therefore, he calls an old friend, Patricia Utley, a high class madam in New York. Utley was introduced in the third Spenser novel, *Mortal Stakes*, where she reported helping another young woman:

"She was eighteen when I took her. She didn't know anything. She didn't know how to dress, how to do her hair, how to wear makeup. She hadn't read anything, been anyplace, talked to anyone...I gave her books to read, showed her how to make up, how to dress." (p. 402).

Echoing Utley's words as well as his own goals for Paul in *Early Autumn*, Spenser says to April:

"If you're going to be a whore, at least we can upgrade your level of whoring...You'd be dealing with a relatively civilized clientele.

You'd learn how to dress and talk and order wine in a restaurant."

Spenser convinces Susan Silverman, the guidance counselor, that this incongruous solution is tolerable, though not ideal. The solution also represents an evolution within the three novels. In *God Save the Child*, both Spenser and Susan hoped that a particularly inept set of parents would benefit from psychotherapy. In *Early Autumn*, Spenser did his own therapy. Here, Spenser suggests that a high-class madam may serve as April's agent of transformation, explicitly dismissing the therapy option Susan suggests. Susan's own role has shifted from conventional guidance counselor, to reluctant advisor in *Early Autumn*, to a skeptic willing to risk her job by helping Spenser take April to the call girl operation in New York in *Ceremony*.

DISCUSSION

The analysis of these Spenser novels offers some interesting contrasts to analyses of other vehicles of popular culture. Most obviously, the contrast between sacred and secular has been replaced by a contrast based on sophistication of consumption. A number of themes can be identified.

First, the ideology presented here is distinguished by emphasizing not *what* is consumed, but *how*. It echoes the role that has been ascribed to advertising vehicles. Lears (1983, p. 23) argues that advertisers began to "promise the maintenance of domestic harmony through intelligent consumption." In the same volume, Agnew (1983, p. 73) suggests that

"Each advertisement promises a fix on the complexities of the market by appealing to the power of purchase as a mental power, a matter of possession and leverage in an indeterminate situation. For every actual purchase, countless contemplated purchases prepare the way...What modern consumer culture produces, then, is not so much a way of being (profligate, miserly, reserved, exhibitionist) as a way of seeing--a way best characterized as visually acquisitive."

Belk (1983) identifies possessiveness with "control or ownership of one's possessions." The Spenser novels emphasize control over not only what is consumed, but an understanding of how consumption objects will be interpreted by others. Appropriate and inappropriate consumption is undertaken with conscious awareness of the audience. Inappropriate consumption leads to unintended impressionable consequences, just as inappropriate actions lead to actors' downfalls.

However, Spenser distinguishes between behavior arising from genuine knowledge and "other-directed anxieties" vividly described by Lears (1983). Exaggerated attention to impression, which is inappropriate, will create an unintended impression of artificiality; this style is exemplified by the seamless make-up and sprayed hair of Marge, the mother in *God Save the Child*, and Patty's boyfriend Steve in *Early*

Autumn, who sits carefully to preserve the crease in his pants and whose shoes are "artfully broken in."

Similarly, unthinking adherence to stereotypical categories is rejected. Throughout the series, criminals are not necessarily distinguished by appropriateness of consumption, let alone specific objects of consumption. Red, a notorious pimp in *Ceremony*, drives a Jaguar; so does Hawk. Indeed, criminals aren't clearly labelled: Spenser tells Paul in *Early Autumn*, "Hawk's not good, but he's a good man." He later tells Paul that his father's sexual stereotypes ("Men don't cook") emerge because people aren't willing to think about who they are: if the father acknowledged that men cook, he'd have to think about what's involved in being a man.

In summary, the theme of this Spenser trio is that knowing how and what to consume is evidence of goodness. Knowing how and what to consume, but sometimes consciously choosing to be inappropriate, is evidence of superiority, strength or originality. The person who is merely appropriate cannot aspire to heroic status (Anonymous 1991). At the other extreme, people who don't know the rules are destined to be unhappy.

CONCLUSION

As Hirschman (1989) observed, culture vehicles can be interpreted in a number of ways. For instance, in this series, one could focus on class distinctions and the role of detective as service provider: Spenser uses his consumption style to attain equal status with his clients. The sacred-secular dichotomy seems less applicable because these novels are very middle-class. Fathers are a contractor, a casualty insurance broker, and a life insurance agent. They are very comfortable but not wildly rich. The sacred-secular distinction might apply to other Spenser novels; for instance, in *Judas Goat*, Spenser is hired by a very wealthy man to avenge a terrorist bombing which killed innocent victims.

The themes identified in this analysis suggest new avenues for consumer researchers. These themes unconsciously echo trends identified in social research studies of contemporary American culture: the "therapeutic ethos," or emphasis on process and self-development (Agnew 1983); "acquisitive cognition," or salvation through consumption knowledge (Lears 1983); and "lifestyle therapy" (Cushman 1990). Research of these trends may be useful to supplement current research on possessiveness, materialism and symbolism associated with possessions.

Finally, consumer values are generated and represented by a variety of vehicles: advertising, television, film, and popular literature. Because these vehicles attract different audiences, they may express and represent differing consumer values and ideologies. An understanding of these values and ideologies will deepen our understanding of consumer behavior.

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The Marlboro Man as a Twentieth Century David: A Philosophical Inquiry into the Aristotelian Aesthetic of Advertising

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ABSTRACT

The David represents the climax of the influence of Aristotle's philosophy of aesthetic on Michelangelo. Thus the David is an aesthetic abstraction of the Aristotelian ideal in the form of High Renaissance sculpture. Some advertising, by its very essence, contains fundamental Aristotelian ideas in its formal aesthetic. Thus the Marlboro Man is an aesthetic abstraction of the Aristotelian ideal in the form of 20th century advertising. This paper posits that because of the Aristotelian ideas manifest in the David, advertising aesthetic, and the Marlboro Man, both the David and the Marlboro Man have come to symbolize similar meta-ethical, aesthetic and political ideas.

"A convincing impossibility is preferable to an unconvincing possibility."--Aristotle

INTRODUCTION

Recent years have seen scholars apply the ideas of semiotics (Pierce, 1931-1958) and symbolism (Langer 1942, 1953) to better comprehend the advertising and consumption processes. In applying semiotic and symbolism theory, scholars have found that the advertising and consumption process involves signification at many levels (Holbrook 1987; Kloepfer 1987; McQuarrie 1989; Mick 1986, 1987, 1988), the creation of symbolic meaning (Levy 1959, Solomon 1983), the creation and transfer of cultural meaning and values (McCracken 1986, 1987; Sherry 1987), the creation and representation of ideals (Schudson 1984, Belk and Pollay 1985), and the acceptance of a wide range of ideas and philosophies (Belk 1988). Some scholars have begun to apply literary theory to consumer research (Durand 1987; Stern 1988) while others have realized the impact aesthetic plays in the advertising process (Feasley 1984, Kloepfer 1987, Holbrook 1987, Noth 1987, Schudson 1984). In a more specific context, Kloepfer (1987, p. 136) observed that advertising draws from all of the arts to make use of the aesthetic potential and Holbrook (1987, p. 88) noted the close alliance of semiotic theory and aesthetic philosophy. In light of such research, inquiry based on aesthetic philosophy could be fruitful.

The purpose of this paper will be to show that an Aristotelian aesthetic philosophy is manifest in both Michelangelo's The David and the Marlboro Man. Aristotelian aesthetics has many ramifications and implications, but for the purposes of this paper, the emphasis will be on the Aristotelian priority of representing or portraying the ideal individual (or the ideal in nature) as attainable in "this world." As aesthetic abstractions, both The David and the Marlboro Man are "this worldly" ideals. Since The David and the Marlboro Man are both derived from Aristotelian aesthetic philosophy, they have both come to symbolize the same metaphysical, ethical and

political ideas or values. By investigating the fundamentals of Aristotelian aesthetic and its processes, this paper posits the potentially controversial idea that the Marlboro Man is a twentieth century David.

Since its creation, the David has been considered a masterpiece of aesthetic expression. However, on a more philosophical level, the David is seen as an aesthetic abstraction in form representing an Aristotelian metaphysical view of man. (While Michelangelo is often considered a Neoplatonist, which may be true later in his life, the David, carved when he was but 29, represents a much stronger Aristotelian influence). Art scholars have observed that the David is an ideal representing man as a noble, conscious being, at home in the universe, and master of his own destiny (Symonds 1901, Rolland 1915, Bargellini 1971). This egoistic ideal thus became the political symbol for independence, liberty, and justice (Vasari 1550, Bargellini 1971). The Marlboro Man too is an egoistic ideal; a noble and conscious being, at home in his universe, master of his destiny. Thus the Marlboro Man has come to symbolize individualism, independence and capitalism. To understand how these aesthetic processes operate we must first turn to the aesthetics of Aristotle.

ARISTOTELIAN AESTHETICS

The origins of Greek aesthetic thought first appeared in criticisms and reflections upon poetical works, painting, and sculpture. During this period, the word "mimesis"--meaning "imitation" or "representation"--came to indicate the relationships of the various arts to the objects in reality or nature (Croce 1909). Although Aristotle never, to our knowledge, formulated a complete theory of aesthetics, he did form coherent ideas about the position art held, for the Greeks, in relation to nature, science and morality (Butcher 1896, p. 116). As in Western philosophy and science, Aristotle has had a most influential impact on Western aesthetic (Butcher 1896, Clark 1953, Cook 1913).

For Aristotle, art is meant as a state of capacity to make or create, wherein art involves a true course of reasoning and a lack of art involves a false course of reasoning (*Ethica Nicomachea* VI 4, 1140a20-23). "Art imitates nature," said Aristotle (*Physics* II 2, 194a21). However, this does not mean that art provides an "exact" imitation of the object in nature. Art imitates nature in that art (like nature) has certain ends requiring means which are found in nature; but, since nature can sometimes fail in its effort to complete, perfect, or bring in to being, art imitates the essence of the object in nature by eliminating the accidentals and improving the object in nature (*Physics* II 8). Thus, art emphasizes that which is essential to the nature of the object and completes or

perfects what nature alone could not complete or perfect.¹ Thus, art must conceptualize the result to be produced before its realization in the material. This is consistent with Aristotelian teleology in which the ends must be known before the means can be chosen. Thus, in this sense, art is a potency, an originitive source of change, accompanied by a rational formula (Metaphysics IX 1, 1046a10-1046b1). As such, art is concerned with coming into being and perfecting matter through matter's union with (the art) form (Metaphysics VII 7). Thus, the artist should "imitate" things as they ought to be (Poetics IX, XXV). Aristotle held that art arises because this type of imitation is natural and delightful to man, the most imitative creature in the world (Ethica Nicomachea VI 4, 1148b3-10).

For Aristotle, art as a capacity to make involves imitation of the essence or universals of nature and change (or coming-to-be) in matter. The form of art is found in the artist's soul which possesses reason. Since reason is concerned with discovering the truths of nature, art should concern itself with universals.

"Hence poetry (art) is something more philosophic and of graver import than history, since its (art) statements are of the nature of universals, whereas those of history are of singulars" (Poe. 9, 1451b5-7).

Therefore, the artist's function is to present, not what has happened, but in accord with the universal nature of man, what *might* happen or what is possible, as being probable or necessary (Poetics 9). Aristotle held that art should portray man/characters not necessarily as he is but as he *should* be. Aristotle cites the example of portrait painters who "reproduce the distinctive features of man, and at the same time, without losing the likeness, make him handsomer than he is" (Poetics 15, 1454b10-12). Aristotle concluded, that for the purposes of art, "a convincing impossibility is preferable to an unconvincing possibility" (Poetics 25, 1461b11). Since art was an imitation as a perfection of nature, including human nature, the forms of art would thus present the universals or essence of man in an ideal state. In presenting this ideal, art imitates the ideal character, emotion, and action of man if he or she followed the principle of reason in their own nature. The action imitated was primarily an inner action, the activity of reason, which manifested itself as the outer action of character and/or emotion. Thus, art does imitate and complete the moral ideal via an aesthetic ideal. While a harmony of soul and body indicated a moral ideal, the ideal beauty contained order, symmetry, and definiteness (Metaphysics XIII 3, 1078b1). Thus, for

the Greeks, a beautiful face with no sign of inner conflict was the ideal (Sures 1969, pp. 605-606).

Aristotle was the first to distinguish between "fine" art and "useful" art. However, this distinction is made only in the context of the exact teleological purposes of each. Fine art is a free and independent activity with its own end. Useful art (such as advertising) has another end in conjunction with its own artistic end. However, both fine and useful art follow the same principles in that they both imitate and complete nature. For useful art follows the guidance of nature and simultaneously supplies any deficiencies (Politics I 2, 1253a2). Key to Aristotle's theory of art is understanding its teleological purpose. The general movement of organic nature, including the life of man, is movement toward the "better" or the "best." For man and art, it is the "purpose" or "design" which is identified with the best. Thus, art imitates the movement to a more perfect completion and, as a consequence, strives for an ideal "better" than the real (Poetics XXV). For Aristotle, unlike say Plato or Kant, the ideal is real and natural, not unreal and supernatural.

This brief discussion of some of Aristotle's fundamental aesthetic ideas is in no way complete, but it does explain some of the fundamental Aristotelian concepts of the ideal at work in some art and some advertising. However, it would be fruitful to turn to some modern Aristotelian aesthetic philosophers in order to better comprehend how the Aristotelian process works in art, particularly with the David, and in advertising, particularly with the Marlboro Man.

Butcher (1896, p. 156), in discussing Aristotle's ideas, states that nature's (including man) "true beauty and significance are visible to the eye of reason." For Aristotle, a work of art is an image of the sense impressions made by an independent reality upon the mind (reason) of the artist with reality reflecting the facts of human life and human nature. Art discovers the *form* towards which an object tends. From the particulars or individuals art presents the universal, the ideal. "The ideal is the real, but rid of contradictions, unfolding itself according to the laws (reason) of its own being apart from all influences and the disturbances of change" (Butcher 1896, pp. 150-151). The ideal is represented through the *abstractions* of universal concepts. Aesthetic presents moral and spiritual ideals via signs or symbols. Inner qualities are manifested in outward forms in which symbols and signs are visible tokens of the unity of body and soul (Butcher 1896, pp. 126-134). Universals and ideals are *objectified* through form. Whether sculptor, poet, or painter, the true artist should portray the ideal form by abstracting the universals or essentials and eliminating the particulars or accidentals. Thus, the artist should portray man or life as he or it "might" be, based on a rational formula. Realism and symbolism must work together to make fiction symbolize truth (Butcher 1896, pp. 391-392). In the Aristotelian sense, the purpose of art was to objectify the real, the essential, the universal, the complete (Fleming, 1955, pp. 49-53).

It is the objectification of universals through abstractions in form that can give Aristotelian

¹The author wishes to thank the Aristotelian scholar Professor Jacques Brunshwig of the University of Paris for helping me clarify my thoughts on Aristotle's concept of imitation in art. However, the responsibility for the interpretation here lies solely with the author.

aesthetic a potential for fulfilling a fundamental psychological/epistemological/emotional need in man and thus having potentially powerful mental/emotional effects. In building on Aristotle, Rand (1971) holds that man needs art precisely because his cognitive faculty is conceptual. This means that man acquires his rationality and knowledge by the process of forming abstractions and thus has an epistemological need to bring his widest metaphysical abstractions into his immediate, perceptual awareness (p. 45). "Art fulfills this need: by a means of a selective re-creation, it concretizes man's fundamental view of himself and of existence. It tells man, in effect, which aspects of his experience are to be regarded as essential, significant, important. In this sense, art teaches man how to use his consciousness. It conditions or stylizes man's consciousness by conveying to him a certain way of looking at existence" (p. 45). Thus, with regard to symbolism in art, the artist does not *fake* reality, he *stylizes* reality. The artist selects the essentials, and omits the accidentals, of life or objects in existence which he or she regards as metaphysically important and by emphasizing, isolating, and stylizing them, the artist objectifies, in an aesthetic form, his or her view of life or existence (or nature). Thus, the aesthetic concepts or forms are "not divorced from the facts of reality--they are concepts which integrate the facts and his metaphysical evaluation of the facts" (p. 36).

Thus, in a most fundamental sense, aesthetics serve as an objectification of metaphysics and the means for the communication of moral ideals. The aesthetic process, via aesthetic forms or concepts, enables man to bring "concepts to the perceptual level of his consciousness and allows him to grasp them directly, as if they were percepts" (p. 20). This is what gives aesthetics the potential for conveying or invoking such powerful emotions. Metaphysical and/or ethical concepts are, via aesthetic abstractions in form, brought to one's perceptual level to "see." In broad fundamentals, this helps explain the complex psychological/epistemological process of aesthetic communication between an artist and a viewer. This process may be summarized, in essence, as follows: "the artist starts with a broad abstraction which he has to concretize, to bring into reality by means of the appropriate particulars; the viewer perceives the particulars, integrates them and grasps the abstractions from which they came, thus completing the circle" (p. 35).

Hopefully, this section has briefly shown the fundamentals of Aristotelian aesthetics and its complex processes. We can now see a little clearer how Aristotle's "convincing impossibility," Butcher's fiction symbolizing truth, and Rand's abstractions as stylized reality can be utilized to great aesthetic effect, both in the David and in the Marlboro Man.

The David

Michelangelo's David is, by most accounts, one of the greatest artistic achievements in history (and this brief discussion can only touch upon a few ideas about the David). Michelangelo, in a sense, was a product of his century. The 16th century is

characterized by the spirited rebirth of Aristotelian thought, which challenged the authority of the church and state and which fueled the incredible artistic achievements of the High Renaissance. Man as having reason, virtue, independence, and happiness in this world were ideas that were manifest in the meta-ethical, political, and aesthetic thought of the time and in the Renaissance idea of the "perfect" man, both in thought and action. Aristotle's *Poetics* were first translated to Latin in 1498 in Venice (Butcher 1896); the David was begun in 1501 and completed in 1504.

The David (Exhibit 1) represents the climax of an Aristotelian influence in Michelangelo (for his later work was more Platonist, tragic, and religious). Michelangelo believed that his "intelletto," the reason in the eye of the artist, was capable of discovering the form or "potentia" (Clements, pp. 14-21) that existed in the huge block of marble with no value, marred by the work of a previous and lesser sculptor (Vasari, pp. 15-16). Michelangelo returned from Rome and Venice to Florence and accepted the commission to salvage the marble block from the Board of Works of S. Maria del Fiore (Symonds, pp. 86-90). Working from a small 18" wax model, Michelangelo abstracted the ideal form of face (Exhibit 2) from several individual faces to help convey the "terribilitá," an "awe-inspiring" conception (Symonds pp. 99-101). The David, with its intense purposeful stare, its furrowed brow, its both slightly oversized head and masculine hands (Exhibit 3), and its height (nine cubits: approx. 17 feet), conveys the essence of self-efficaciousness and masculinity in the Aristotelian sense. The David is a complete ideal abstraction in form, Aristotelian in spirit but definitely a creation of and for the Renaissance. Conceived in Michelangelo's soul, the completion of what nature could not finish, an imitation and perfection of nature, a universal man, handsomer than any one particular man, a face with no inner conflict, a man of action as a man could and should be, according to the principles of nature and reason, the David stood tall in the civic area of the Palazzo Vecchio and conveyed great symbolism for the Florentines. Conveyed via the particulars of the sculpture, the nude figure embodied the ideal of perfection in man ("man" meaning woman and man). Fiction symbolizing beauty and truth.

"Self assured, his gaze fixed on a goal already attained, Michelangelo's David truly represented the consciousness of a man, master of his own destiny, who victoriously opposed brute force with the invincible power of the spirit...(and) became the silent assessor of the republican independence that was soon to be suppressed but not vanquished forever (Bargellini, p. 2)."

The Aristotelian aesthetic ideas manifest in the David naturally led to the David symbolizing the meta-ethical concepts of reason, independence, egoism and efficacy and the political concepts of republican liberty. Thus, the David is the objectification of an

EXHIBIT 1

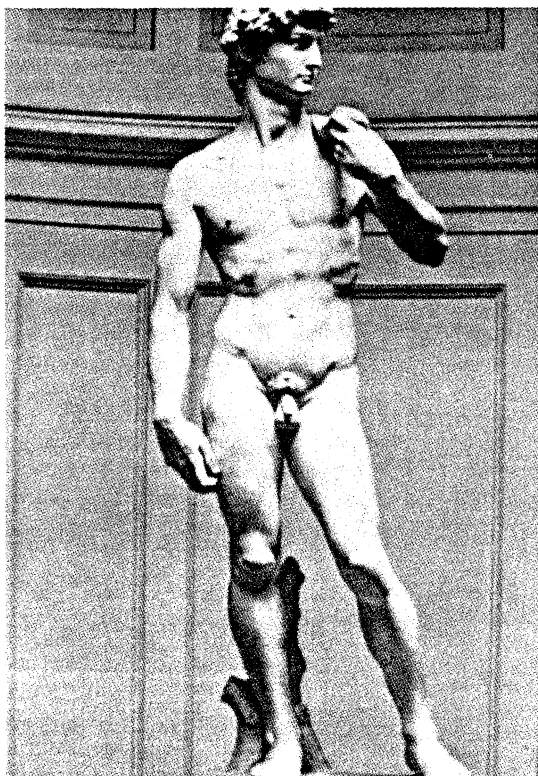


EXHIBIT 2



EXHIBIT 3



Aristotelian ideal conveying profound meta-ethical, political, and aesthetic meaning.

ARISTOTELIANISM IN ADVERTISING AESTHETIC

The idea that Aristotelianism (as opposed to Platonism or Kantianism) is manifest in some advertising may seem quite unusual. However, upon philosophical investigation, we can see that it is quite natural. Some scholars have observed that Aristotle is the primary philosophical source for Western classical liberalism and constitutionalism (Hayek 1960), and by implication, capitalism. However, on a more fundamental ethical level, Aristotle's concept of "eudaimonia" (the self-sufficient full life of thought and action) and happiness in "this world" remain influential in the Western world. This has important implications for advertising.

The view that man can better himself in "this world" with ideas and goods is predominantly a Western concept. Production is the creation of ideas, goods, and services to better satisfy individual wants and needs (Mises 1949). On another level, production is the application of reason (ideas) to reality (matter). Thus, production completes what nature cannot bring to a finish. Ideas, goods, and services are produced to improve man's life on earth, both intellectually and materially. Therefore, advertising necessarily presents the idea that goods and services can improve life on earth. Advertising presents (or implies) that a particular good can contribute to some potential form of happiness for an individual. Though a produced good or service exists as an actual object in reality, it exists only as a potential with regard to consumption and happiness. Only after the product is consumed or in the process (whatever it may be) of being consumed can the advertised potential form of "happiness" actualize for the individual. Advertising presents the product or service as a potential originative source of change for man from a given state to a desired state of "happiness," as could or should actualize. Thus, the teleology of advertising is to necessarily present potentials as they could or should actualize. A product or service could or should bring some form of "happiness" (to whatever extent) to an individual consumer. Advertising aesthetic necessarily represents life as it could be or should be or ought to be. While both production and advertising also have a catallactic end, the primary end for each, respectively, is to cause and portray movement toward the better.

Advertising aesthetics consist of a conception of a potential result before it is realized or actualized in the material. Advertising aesthetics presents a potency of change via a rational formula which should necessarily be intelligible through reason. Advertising presents products and services that do exist as objects in reality and for their function or meaning to be understood by a particular potential individual, advertising must impart its meaning through some form of reason and values. This meaning is communicated/symbolized through abstractions of universals (the concern of reason) via aesthetic forms. The meaning of objects, which exist

independently in reality, is communicated through intelligible aesthetic representations. Thus advertising aesthetics imply an independent reality, epistemological realism (Kelley 1986), and a rational faculty in man (in this context).

Advertising aesthetics are mimetic of the universals of the potencies of man and existence in a Western capitalistic, political/economic system. Advertising aesthetic is not fine art (though it may serve this function), which exists solely for its own end. Advertising aesthetics, like architecture, is a form of Aristotle's useful arts. Advertising is an aesthetic activity in which an idea, good, or service and its potential value is re-created as an abstraction of reality according to the advertiser's metaphysical values. The form of the abstraction may be any combination of literary/aural/visual/sensory forms. The form of the presentation and the style in which the product and reality is abstracted is determined by the advertiser and its agency. Advertising re-creates and stylizes aspects of reality through abstraction as form.

Thus in advertising art, abstractions in form represent the product in reality, with reality including the product and its potential, and the background, setting, people, characters, etc. By stressing that which is fundamental and universal and omitting the particular, thus abstracted is not any particular one of the products advertised, but rather the universal form of the product and reality. For example, the casting process is a form of abstraction and omission, in that a model is selected to be the form of the universal abstraction of the chosen character, spokesperson (excluding celebrities) or individual symbol of a demographic category. The casting process, wardrobe, set selection and design, lighting effects, photographic techniques and make-up processes all represent the process of abstraction for a particular advertisement. This process of abstraction necessarily leads to a presentation of a universal form, i.e. an ideal. The ideal is thus better and more important than the real. For example, through the process of abstraction via special effects, lighting, photography, etc., a soft drink bottle or a lipstick tube or a person/character become more "real" in their stylized form in advertising than any particular form in reality. Thus, a soft drink bottle may look more frosty or a lipstick tube may look more "wet" or "red" or a person/character may look more beautiful than any particular soft drink or lipstick or person in reality, although a bottle or lipstick tube or person *could* look that frosty or red or beautiful. Thus, in advertising aesthetic, the ideal is more "real" than the real.

Advertisers attempt to objectify in form the universal or essential. For advertisers, it is the universal in product, service, man and reality. Advertisers also objectify the complete, the unified whole. All parts contribute to the whole; the non-essential is omitted and nature is completed. An abstract hero may overcome a conflict or obstacle. A hero, either product or person and product, faces a seemingly impossible or significant conflict, which is ultimately resolved through change caused by the

EXHIBIT 4



EXHIBIT 5

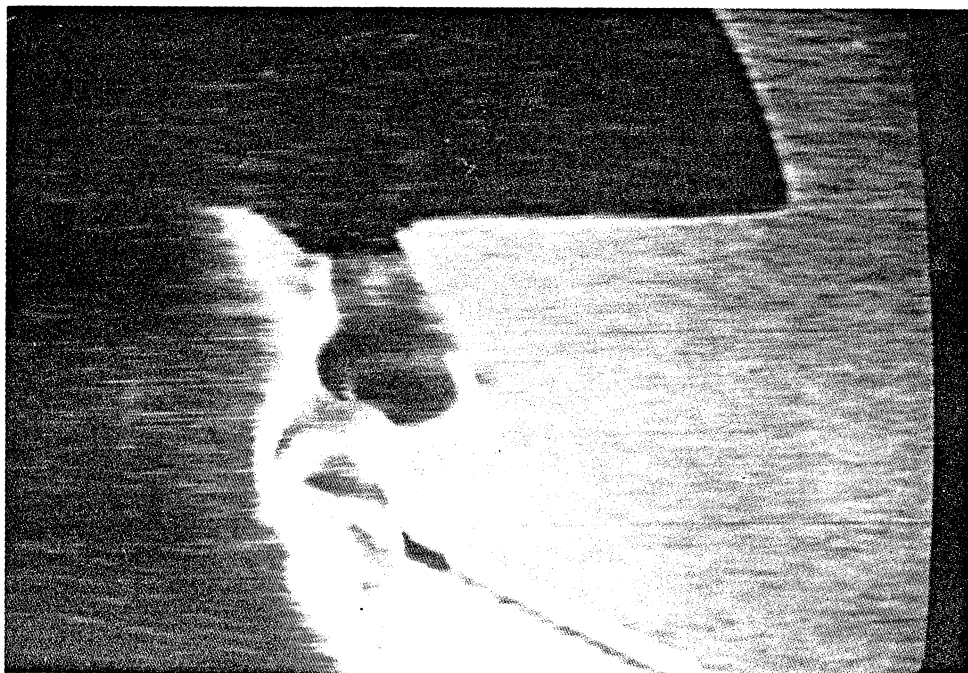


EXHIBIT 6



EXHIBIT 7



product. The aesthetic process of abstraction thus changes this change by representing the change in its universal, potential form. The ad presents the changes in the form of obstacles being overcome, values being won, happiness being achieved, nature being completed. Advertising is necessarily Aristotelian in that it is always portraying the coming-to-be.

Advertising, in pure form, is individual-centered. It does assume and state that individuals can be happy and experience eudaimonia in "this world." Advertising is necessarily egoistic. Advertising presents a form of the moral individual. Moral and spiritual inner qualities are manifested in the outward forms in advertising. The universals in form thus symbolize or signify this harmony of mind and matter, soul and body, spirit and material. Advertising necessarily presents the egoistic ideal; how life could and should be when guided by nature and reason's formula. The state of affairs is potential happiness, a full life of thought and action. In presenting how life could be, advertising often presents the ideal man or woman as a symbol of the way he or she could be. The moral man or woman is a universal abstraction in form. Many times national advertising presents the universal abstraction in form, while complementary local advertising provides specific information on how, where, and for what price the product is available so the consumer can begin the process of change (coming-to-be) to a more universal or pure moral form. Thus the outer forms pictured in advertising symbolize the tendencies of the universal inner qualities. The aesthetic outer symbolizes the moral inner. A beautiful face symbolizing no inner conflict.

Advertising utilizes aesthetics in re-creating reality through abstractions as forms. Herein lies where advertising reaches its greatest potential as an art form. Man's need for art lies in his need to have his widest metaphysical abstractions brought to the perceptual level. Advertising aesthetics do bring to the perceptual level various metaphysical abstractions about man. Advertising presents reality, objects, ideas and concepts via a perceptual form (pictures, sounds, words, etc.). The criterion for an aesthetic abstraction is: "What is important?" In creating an advertisement, the advertiser selects the aspects of the product and existence which the advertiser regards as important. These aspects of the product and existence become the elements or content of the ad. The objects/elements in the advertisement signify metaphysical importance and the style/technique signifies epistemological importance. By selecting, isolating, and stressing the aspects deemed as important and by omitting the insignificant and accidental, the advertiser presents his view of his product and its potential in existence. These aesthetic abstractions are not divorced from the facts of reality; they should, in a proper form, be abstractions which integrate the facts and the advertiser's evaluation of the facts. Advertising, like art, is egoistic in that it appeals to the psycho-epistemological needs of man by re-creating reality through various abstractions that give form to important values about man and woman and life on earth. It is in the objectification, through universal abstractions in outward form, of

metaphysical, epistemological, and moral evaluations of man and woman that advertising aesthetics (the useful) most approaches Aristotelian aesthetics (the fine).

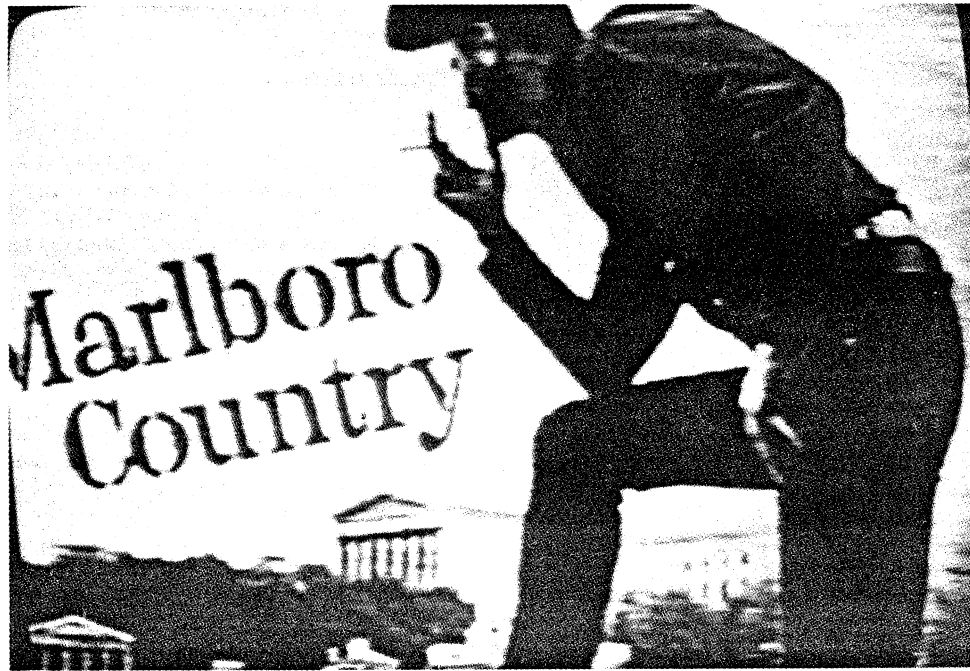
The Marlboro Man

Perhaps the most famous and successful advertising campaign in history is the Marlboro Man campaign for Philip Morris. As others have noted, the Marlboro Man is more than just a cowboy selling cigarettes (Camargo 1987, Lohof 1971). The Marlboro Man is the objectification, in advertising form, of universals concerning the meta-ethical nature of man. Like the David, the Marlboro Man is too a product of his century. The Aristotelianism manifest in the nature of some 20th century advertising created the philosophical framework for the creation of a Marlboro Man. This Aristotelianism has led to the Marlboro Man coming to symbolize the same meta-ethical, political and aesthetic ideas as the David.

First commissioned in 1954 by Philip Morris, 450 years after the David, the Marlboro Man was created to give value to an object, a failing cigarette brand, where little value had existed before. In repositioning the Marlboro cigarette for men, the Leo Burnett agency explicitly chose to convey the abstraction of masculinity via the American cowboy (Burnett 1966). In creating the abstraction of masculinity via the cowboy, the creators of the Marlboro Man have utilized many men to represent the universal of man, but not of any particular man. Interestingly, but naturally, the Marlboro Man also is similar to the David in many actual aesthetic executions (Exhibit 4). Often the Marlboro Man is shown "in action" with his hand reaching into his pocket for a cigarette or a lighter much like David with his hand grasping his slingshot. The Marlboro Man is often depicted in profile, emphasizing the straight nose, square jaw, and furrowed brow (Exhibits 5 & 6) over an intense, purposeful look in the eyes. Additionally, like Michelangelo with the David, there is an emphasis on oversized masculine hands grasping the fundamental object, the cigarette and/or lighter (Exhibit 7). In sum, there are striking executional emphases and similarities in both the David and the Marlboro Man: the emphasis on the strong square-jawed "Western" profile, the oversized masculine hands grasping a sling or a cigarette, the Aristotelian man of action (the exhibits are just a few among many that could have been chosen).

However, the greatest similarity between the David and the Marlboro Man is the philosophical ideas they symbolize. Via the chosen particulars, strong profile, the masculine hands, the man of action (as both inner thought and outer action), the Marlboro Man symbolizes the universal in man: reason, independence, efficacy, and egoism. Like the David, the Marlboro Man controls and is at home in an intelligible universe, comprehending reality and acting in accordance with it. Fronting the essential facts of life, the Marlboro Man purposely exists as his own end, doing what must be done. An imitation and perfection of nature, the completion of the nature of man, the potential as abstraction in form, man as he

EXHIBIT 8



could be, more handsome than any particular man, more real than the real, the Marlboro Man symbolizes the same meta-ethical, aesthetic and political ideas as the David. The Marlboro Man stands tall on the billboards of the world as the Aristotelian aesthetic ideal, symbolizing reason, independence, efficacy, egoism and explicitly or implicitly, republican liberty (Exhibit 8). In Aristotelian fundamentals, the Marlboro Man is a 20th century David.

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Consumers and Movies: Information Sources for Experiential Products

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ABSTRACT

Experiential products are defined as ones which consumers choose, buy and use solely to experience and enjoy; movies are studied as an example. This paper identifies two types of information sources for such products: experiential, which convey a sense of the consumption experience, and non-experiential, which do not describe consumption. Results of a survey indicate that subjects find experiential sources more useful and credible than non-experiential for choosing movies. More specifically, for subjective features, subjects report that experiential sources are more useful and credible than non-experiential sources but report no differences for objective features.

All goods and services are consumed, but for some products, like the performing arts, wine, and vacations, the consumption experience is an end in itself and serves as the primary benefit in use. This paper focuses on this type of product and labels them *experiential* products. Consumers choose, acquire and use experiential products solely to experience them and enjoy them. Experiential products include both physical goods, such as wine and recreational drugs, and services, such as sporting events and restaurant meals. The dominant benefit of these products is hedonic consumption, that is the feelings, emotions and sensations experienced during product usage (Hirschman and Holbrook 1982).

Given the special nature of experiential products, consumer behavior for them is likely to differ from that for other types of products. Building on an earlier study (Cooper-Martin 1991), the purpose and contribution of this study is to further understand the unique aspects of consumer behavior for these special products by studying the information sources consumers use to choose them. This paper builds on the experiential or hedonic perspective (Hirschman and Holbrook 1982; Holbrook and Hirschman 1982) by using the consumption experience, which differentiates experiential products from others, to identify two types of information sources. They are experiential, which convey a sense of the consumption experience, and non-experiential, which do not describe consumption. Specifically, this paper uses movies as an example of the class of experiential products.

The next section discusses experiential products in more detail and develops the hypotheses on the types of information sources that consumers use for movies. The following two sections describe the methodology and results. The discussion section includes suggestions for additional research on experiential products and potential implications for managers interested in marketing movies.

EXPERIENTIAL PRODUCTS

Experiential products are defined by their dominant emphasis on the consumption experience. The main benefit from these products is the pleasure or

hedonic value in consumption. Experiential products contrast with goods and services that primarily fulfill utilitarian functions. For example, the major benefit of shampoo is to leave hair clean and shiny, blankets keep one warm, a visit to the dentist protects one's teeth. Clearly, there may be hedonic aspects of consuming non-experiential products; for example, the lovely fragrance of a peach-scented shampoo or the fondness for a blanket received from a dear relative. But the primary reason for consuming these products is not to experience them.

Just as utilitarian products may have some hedonic value, experiential products may have some utilitarian functions. For instance, food clearly has the utilitarian benefit of keeping one alive. Thus under certain circumstances, for example grabbing a quick snack to stave off hunger pangs, food is more of a utilitarian product. But under certain circumstances, food can be an experiential product; for example, in a first-class restaurant. The emphasis then is clearly hedonic; to enjoy the sight, aroma, texture and taste of the food. A restaurant meal can be hedonic in other ways: savoring a fine wine, soaking in the elegant surroundings, enjoying the luxury of excellent service.

This paper uses movies as an example of experiential products because they appeal to a wide range of consumers, compared to the arts (see summary in Capon and Cooper-Martin 1990) or wine (Jobson 1989). Further, movies are purely experiential, as compared to television and radio which may accompany other activities. For example, broadcast music can serve as a background for shopping (Milliman 1982) or a restaurant meal (Milliman 1986). Further, it appears that consumers do consider movies to be experiential; an earlier study found that involvement for movies (as well as for another experiential product, wine) is dominantly hedonic (Cooper-Martin 1991).

For experiential products, such as movies, consumers search two types of information sources: experiential and non-experiential. To learn about experiential products, consumer should turn to experiential sources which are distinguished by their ability to convey a sense of the consumption experience, that is, of what it is like to see, hear, taste, touch or smell the product. In a survey of information sources for movies, subjects rated previews and friends' comments as more useful and more credible for evaluating movies than magazine advertisements, radio advertisements or critics' reviews (Faber and O'Guinn 1984). Compared to the latter three sources, television advertisements were rated more useful, but not more credible. Previews and television advertisements are experiential sources; they provide a chance to try the movie. Friends who have seen the movie can describe it and so are another experiential source. Non-experiential sources, such as print or radio advertisements, are less useful because they do not illustrate or mimic the consumption

experience. Although reviews should be an experiential source, the subjects found them less useful. But, in general, the following hypothesis seems justified.

- H1.* For experiential products, experiential information sources are more useful and credible to consumers than non-experiential information sources.

In selecting a hedonic or experiential product, such as movies, consumers rely more on subjective than objective features (Cooper-Martin 1991). ("Feature" is used here to refer to a product characteristic defined by consumers. It is not used in the sense that such characteristics are dichotomous.) Subjective features describe the consumption experience, for example, what it is like to see and hear the movie. Objective features can be externally verified; examples for a movie are the director, starring actor, admission price or schedule convenience.

In choosing experiential products, subjective features are more useful than objective features for two reasons: their abstractness and their reflection of the hedonic experience. Features that are more abstract describe a greater number of alternatives than concrete features (Johnson and Kisielius 1985). Hence, they facilitate comparisons with different product classes; for experiential products, such as movies, consumers consider other product classes as alternatives (Cooper-Martin 1991). Because the benefit from experiential products is pleasure in consumption, consumers should choose movies and similar products based on what they like and enjoy, on what pleases them, in other words, based on intrinsic preference (O'Shaughnessy 1987). Subjective features reflect this viewpoint, that is, the personal nature of the experience. Such product features are important from an experiential perspective (Holbrook and Hirschman 1982) and by extension are important for experiential products. In fact, these subjective features can be described as aspects of consumption (Holbrook and Hirschman 1982).

Consumers also consider objective features of experiential products; they are often tangible and utilitarian (Holbrook and Hirschman 1982). They should be less important for experiential products than subjective features because such products, by definition, do not fulfill utilitarian functions.

The different types of information sources, experiential versus non-experiential, relate to subjective and objective features as follows. The usefulness and credibility of an information source may depend on what information it provides. Specifically, a non-experiential source (e.g., a magazine ad) may be just as credible and useful as an experiential source (e.g., a friend) to determine objective features (e.g., the movie's director). However, for subjective features (e.g., how funny the movie is), experiential sources (e.g., a friend) should be more credible and useful than non-experiential sources. This reasoning leads to the following hypotheses:

- H2.* For subjective features of experiential products, experiential information sources are more credible and useful than non-experiential sources.
- H3.* For objective features of experiential products, experiential and non-experiential information sources are equally credible and useful to consumers.

METHODOLOGY

Subjects

The subjects were 98 undergraduate students enrolled in a business course; they received course credit for their participation. The sample was 31% women and 69% men; ages ranged from 18 to 30 years and the mean age was 20.4 years. This age group is very appropriate for a study about movies, because 15-24 years old account for nearly half of movie admissions (Newspaper Advertising Bureau 1984).

Procedure

Subjects responded to a written survey; they were tested in two groups but each subject filled out the survey individually. Subjects rated each of seven information sources on four questions: credibility for learning about an objective feature, usefulness for learning about an objective feature, credibility for learning about a subjective feature, and usefulness for learning about a subjective feature. Examples of a question on usefulness and on credibility are in the Exhibit. Note that questions on usefulness defined it as capable of providing the information and that questions on credibility defined it as believable. Subjects answered each question for all information sources before proceeding to the next question. The order of the questions was systematically rotated across all subjects and the order of the information sources for each question was randomized.

The seven information sources were chosen from a set identified as those involved in the initial decision of whether to see a particular film (Faber and O'Guinn 1984). This set excluded newspaper advertisements, which are used more for the decision on when and where to see the film, but included radio advertisements. The latter were eliminated because in an earlier survey, the same population as the current study almost never mentioned radio advertisements as an information source for movies. This deletion also had the advantage of shortening the questionnaire.

Because of the emphasis on experiential sources, Faber and O'Guinn's (1984) source, comments from friends, was expanded to two sources: comments from friends who have seen the movie (an experiential source) and comments from friends who have not seen the movie (a non-experiential source). Thus, the survey used five experiential sources: comments from friends who have seen the movie, critics' reviews, television ads, previews, and comments from someone you know and who you consider to be a film expert, and two non-experiential sources: comments from

EXHIBIT

Examples of Questions on Usefulness and Credibility

When you want to learn who the producer is for a particular movie, how *USEFUL* (i.e., capable of providing the information) is each of the following sources? For each question, please circle the number that indicates how useful that source is. For example if it is *very useful*, circle 7.

Television ads

1	2	3	4	5	6	7
Not at all useful						Very useful

When you want to learn whether a particular movie is good, how *CREDIBLE* (i.e., believable) is each of the following sources? For each question, please circle the number that indicates how credible that source is. For example if it is *very credible*, circle 7.

Comments from friends who have seen the movie

1	2	3	4	5	6	7
Not at all credible						Very credible

friends who have not seen the movie and magazine ads.

To insure generalizability, this study included three subjective features used to choose a movie: serious, good, and funny, and three objective features used to choose a movie: the producer, the setting, and the leading actor or actress. An earlier survey of the same population produced lists of subjective and of objective features (Cooper-Martin 1991); the features in this study were taken from these lists. From the list of objective features, those related to movie-going (e.g., location or price) were eliminated. Of the remainder, all of which were related to the movie itself, the three most frequently mentioned ones were used in this study. From the list of subjective features, those which could not be used with every information source in this questionnaire (e.g., others wanted to see it) were eliminated. Of the remainder, the three most frequently mentioned ones were used in this study.

Each subject answered questions on only one subjective feature and on one objective feature. All possible pairs of the three objective and three subjective features were used and rotated across all subjects.

RESULTS

The results for credibility and usefulness were analyzed separately with a 2 (information source) X 2 (feature) repeated measures ANOVA. The two levels of information source were experiential (consisting of the sum of comments from friends who have seen the movie, critics' reviews, television ads, previews, and comments from someone you know and who you consider to be a film expert) and non-experiential (consisting of the sum of magazine ads plus comments from friends who have not seen the movie); the two levels of feature were subjective and objective. Due to missing data from one subject, the analysis incorporated only 97 subjects.

The main effect for source in the ANOVA tested Hypothesis 1. As predicted, subjects rate experiential sources (5.33) as more credible than non-experiential sources (3.46, $F(1,96) = 483.0, p < .0001$). Also, as predicted, subjects rate experiential sources (5.38) as more useful than non-experiential sources (3.45, $F(1,96) = 439.5, p < .0001$).

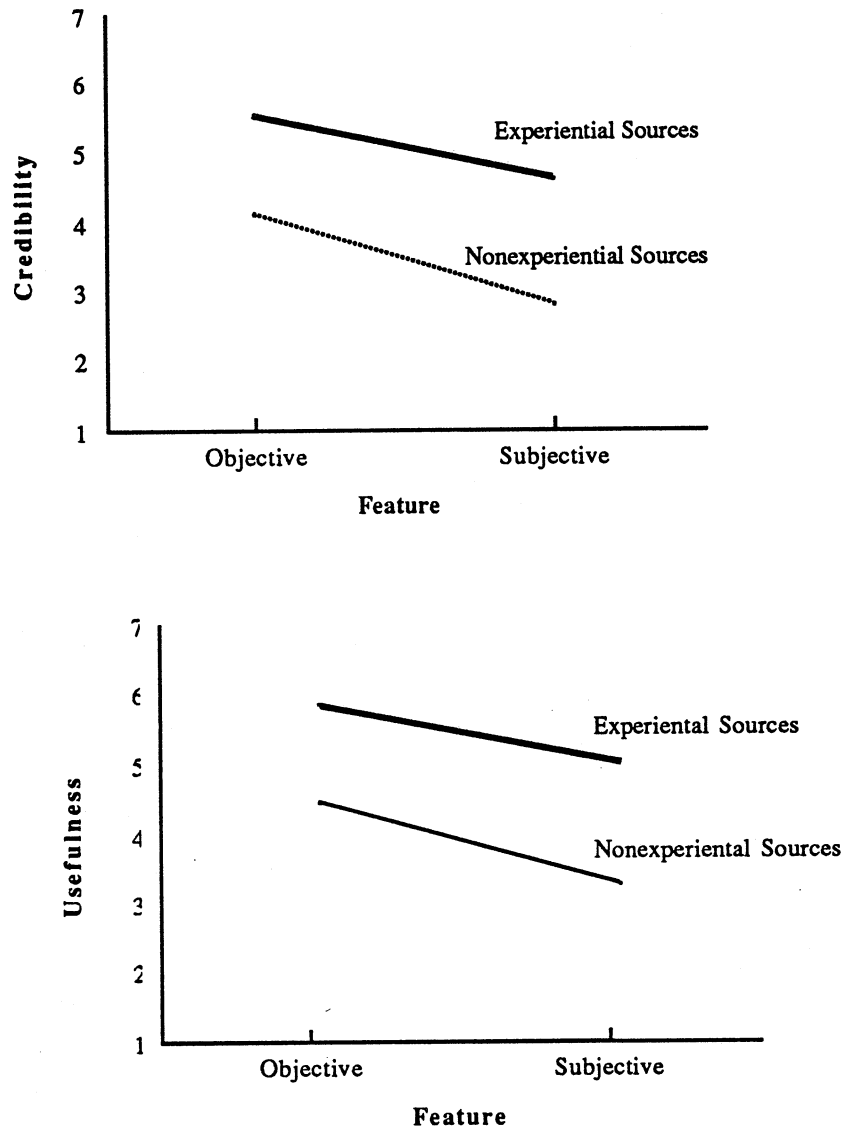
To test H2, planned contrasts between experiential sources and non-experiential sources for subjective features were used. As predicted, for subjective features, experiential sources (4.96) are more credible than non-experiential sources (2.84, $F(1,96) = 4.18, p < .05$). Also, as predicted, for subjective features, experiential sources (5.17) are more useful than non-experiential sources (2.87, $F(1,96) = 5.21, p < .05$).

To test H3, planned contrasts between experiential sources and non-experiential sources for objective features were used. As expected, for objective features, experiential sources (5.71) are not more credible than non-experiential sources (4.09, $F(1,96) = 3.13, p > .05$). Further, as predicted, experiential sources (5.58) do not differ in usefulness from non-experiential sources for objective features (4.04, $F(1,96) = 1.95, p > .10$). These results for H2 and H3 are consistent with significant interactions between source and feature in the ANOVAs for both credibility ($F(1,96) = 22.8, p < .0001$) and usefulness ($F(1,96) = 43.9, p < .0001$) (see Figure).

DISCUSSION

As expected, this study confirms the greater credibility and usefulness of experiential over non-experiential information sources for movies, as an example of experiential products. Such sources provide a sense of the consumption experience which is an end in itself for experiential products. Thus experiential sources are particularly valuable to consumers for information on subjective features,

FIGURE



those characteristics which reflect the personal nature of the consumption experience. For objective features (those which can be externally verified), at least of movies, the two types of information sources do not differ on credibility and usefulness.

It appears that experiential sources, by illustrating or describing consumption, provide a trial of the product. Faber and O'Guinn (1984) argued that previews serve this role. Such trial seems particularly useful for experiential products like movies or the performing arts which are typically new or unfamiliar to the consumer; consumers usually go to a movie that they have not seen before. For new products, trial is a useful step in the decision process, before final adoption (Wilkie 1990, p. 360).

The relative usefulness and credibility of six of the information sources tested converge well with the findings of Faber and O'Guinn (1984), who also used a seven-point semantic differential scale. To make this comparison, the results from this study were averaged across both subjective and objective features. Rankings on credibility from Faber and O'Guinn follow (with the most credible first and the least credible last): experts' comments, friends' comments, previews, critics' reviews, television ads and magazine ads. (In tests of differences between the sources, Faber and O'Guinn (1984) found no differences between the first three sources and the last three sources in this list.) The ranking from this study was almost identical; the only difference was that the rankings of

previews and critics' reviews were reversed. The rankings on usefulness differed more. However, previews, friends' comments and expert's comments were in the top three in both studies; likewise, critics' reviews, television ads and magazine ads were in the bottom three sources in both studies.

Another useful distinction among information sources used by consumers is personal versus impersonal sources (e.g., Engel, Blackwell and Miniard 1990). The experiential sources used in this study included both personal sources (i.e., critics' reviews, comments from film expert, and comments from friends who have seen the movie) and impersonal ones (i.e., previews and television ads). Likewise, one non-experiential source was personal (i.e., comments from friends who have not seen the movie) and one was impersonal (i.e., magazine ads). Because both experiential and non-experiential sources include both personal and impersonal sources, this difference does not support an alternate hypothesis for the results. Further, all the analyses reported above were repeated for personal versus impersonal sources. Neither the main effect for source nor the contrasts on credibility and usefulness for subjective versus objective features were significant. Thus, the distinction between experiential and non-experiential sources seems more useful in understanding consumer behavior for movies, and likely for experiential products, than the difference between personal and impersonal sources.

The current findings are limited by a non-random, relatively small sample that focuses on the most important age group for movie-goers but neglects other important age group targets, such as teenagers. If a study with a bigger, projectable sample confirms the current findings, then certain managerial implications would result. For example, communication efforts for movies and other types of experiential products should focus on experiential sources. Although some of these sources (e.g., word-of-mouth by friends and experts) are difficult for marketers to control, they can put more emphasis on vehicles such as television advertisements and previews rather than on magazine advertisements. The former two sources should be particularly effective in communicating the subjective nature of the product; for example, whether a movie is funny, suspenseful, scary, or romantic. If the marketer prefers to emphasize objective features, then television advertisements and previews should be more effective than magazine advertisements, but the difference in effectiveness is somewhat less.

Beyond replicating this study with a larger and broader sample, future research using the same dependent variables should consider the use of MANOVA for the analysis, as usefulness and credibility may be related. Further it would be helpful to test the credibility and usefulness of experiential versus non-experiential sources with utilitarian or non-experiential products, as well as other examples of experiential products. Another study on movies might use the director as an objective feature, as directors (e.g., Spike Lee, David Lynch) typically have more impact on the film's quality than the producer (a feature used in this study).

In trying to understand the role of experiential versus non-experiential sources, this study incorporated the differences between subjective and objective features of a product. In keeping with the experiential perspective, it would be worthwhile to explore the relation of these two types of sources to the differences between verbal and nonverbal (i.e., sensory) product cues (Holbrook and Hirschman 1982), as well.

The results of this study are encouraging and support the idea that experiential products have specific patterns of consumer behavior. It appears that hedonic consumption can define a category of products and, further, that such consumption is key for understanding them. This emphasis thus contributed towards the need in the field of consumer behavior to address the experiential aspects of consumption (Hirschman and Holbrook 1982; Holbrook and Hirschman 1982).

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Involvement and Advertisement Size Effects on Information Processing

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ABSTRACT

This study examines the moderating role of involvement on advertisement-size effects to predict the extent of information processed. The results indicate that, in the moderate product involvement situation, larger ads are given greater attention and thus are better recalled than smaller ads, whereas, no such difference is observed in the low involvement situation. These findings are explained in the context of previous findings on: 1) advertisement size 2) involvement, 3) distraction and attention capacity, and 4) hierarchical information processing.

INTRODUCTION

Ever since the advent of print advertising, the size of ads has been a key component of interest to both managers and scholars (i.e., Copland 1958; Finn 1988; Holbrook and Lehmann 1980; Hendon 1973; Rossiter 1981; Strong and Adams 1912; Yamanaka 1962). Apparently, there is a positive relationship between the ad size and the attentional value of the ad itself, which has direct implications to a firm's budgetary and media scheduling decisions.

The size of an ad contributes to the ad's attentional value in two ways simultaneously. One is enhancing the probability of the ad being viewed due to its sheer size, while the other is reducing the number and/or the size of other surrounding materials (i.e., other advertisements, editorials) which may detract from the ad's attentional value (Sandage, Fryburger, and Rotzoll 1979). Despite the strong focus on the advertisement size's ability to attract attention, the size literature appears to have overlooked the effect of involvement, which is an integral component in attention allocation decisions (Kahneman 1973; Norman 1976). The extent to which the size effect may be influenced by the advertisement's surrounding may be governed by the audience's involvement with the product in the ad (Finn 1988). There are a number of studies which suggest that involvement, in conjunction with executional factors (i.e., ad size), may affect the processing of the advertised information (Batra and Ray 1983; Cohen 1983; Muncy and Hunt 1984). For example, Muncy and Hunt (1984) posit that "factors such as the media in which the communication is present, the editorial content surrounding the communication,... have all been related to involvement" and are very likely to affect the processing of the advertisement message. Although these studies suggest the presence of potential interaction effects between involvement and external factor(s) on the extent of the message processed, no directional effects have been proposed.

Hence, the objective of this study is to explore whether the involvement factors moderate the effects of ad size in the processing of the information presented in the advertisement. Since the premise of this study is to examine how various levels of involvement affect the ad size's contribution to the ad's attentional value, we are particularly interested in observing consumer responses to ads under conditions of freely allocated attention. The conjectures presented in this study are based on the previous findings of: 1) advertisement size, 2) involvement, 3) distraction and attention capacity, and 4) hierarchical information processing.

The paper is organized in the following manner. The first section enumerates the general findings of ad size which relate increased processing (attention and comprehension) with an increase in ad size. The second section depicts the distinction between the high and the low levels of involvement. The following section integrates the findings from ad size studies and from involvement studies with the distraction/attention capacity theories in the context of hierarchical processing framework. The conceptual framework is followed by a description of an experiment that investigates whether, 1) in a low involvement condition, there is any difference between a large ad and a small ad on attention and comprehension; 2) in a moderate involvement condition, attention and comprehension are greater for a large ad compared to a small ad.

THE EFFECT OF SIZE OF A PRINT ADVERTISEMENT

The importance of print advertisement's attention value have long been acknowledged, and a number of studies have focused on the ad characteristics' ability to enhance the attentional value of print advertisements (i.e., Diamond 1968; Finn 1988; Hanssens and Weitz 1980; Hendon 1973; Holbrook and Lehmann 1980; Sparkman 1985; Strong and Adams 1912-1920; Twedt 1952; Yamanaka 1962). For example, ad characteristics have been found to account for more than 45% variance in print ads' effectiveness measures (i.e., recall, read most score), and among ad characteristics, ad size was shown to be strongly correlated (.78) with the effectiveness measures (Hanssens and Weitz 1980).

Hence, ad size, being an influential ad characteristic and also a significant cost factor, has been examined from various perspectives. Some research used experiments (i.e., Strong and Adams 1912-1920), whereas others relied on readership scores (i.e., Diamond 1968; Finn 1988; Holbrook and Lehmann 1980; Troidahl and Jones 1965) to explore the relationship between size and attention and/or comprehension. Both methods reveal that as the advertisement size increases, so does the ad's effectiveness. In fact, Hendon (1973) reports that Strong and Adams (1912-1920) and Copland (1958) found that the permanency of an advertisement

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impression varied directly with the square root of the increase in ad area. The positive effects of ad size is also corroborated by the findings from readership studies. In Finn (1988)'s meta-analysis of readership studies, there is an overwhelming evidence for ad size's positive effect on cognitive activity: 14 findings on attention, 2 on comprehension, and 6 on elaboration. Additionally, Troidahl and Jones (1965) found that ad size alone explained over 40% of the variability in readership, and that the correlation between ad size and ad readership were .64 among men and .73 among women. There, however, appears to be one exception: Ferguson (1935) found that there was no relationship between the size of an ad and the ad's attentional value.

With the exception of Ferguson (1935)'s null effect, there seems to be a relatively strong consensus on the positive relationship between ad size and the attentional value of an ad. The effect of ad size on behavior, though significant, is not as strong as the effect on the attentional aspects: ad size accounted for 19 to 36% of the variance in *inquiry generation* prompted by advertisements (Hanssens and Weitz 1980). They explain this phenomenon with a hierarchy of effects model, which states that "the communication variables typically have a greater effect on lower order responses (awareness) than higher order responses (behavior)." In any case, it is evident that ad size has considerable impact on both awareness and behavior.

Despite the tremendous focus on the attentional aspects of advertisement sizes, however, past research on ad size has overlooked the role of involvement, which is an integral element determining the allocation of attention. The size studies have yet to account for the effects of involvement in the context of ad size effects. This concern is expressed by Finn (1988):

... A study of the relationship between level of involvement, type of processing, recall, and recognition responses to print ads is needed to resolve the validity issue (of ad characteristics)

The consideration of involvement factors is critical when examining the effects of ad size, because the size of an ad indirectly affects the composition of the advertisement's environment. Muncy and Hunt (1984) report that a stimulus' environmental factors (i.e., media, editorials) have been found to be related to involvement and also to affect the processing. For example, Mitchell (1981) illustrates a scenario in which a consumer in a market for a new automobile devotes disproportionately more attention to the advertisement's background rather than to the information of the car, which results in the inferior encoding of the latter. Hence, there are some initial indications that involvement and ad size may jointly affect the attentional value of a print advertisement.

One theory that provides initial insight into how size effects might operate under different levels of involvement is the Elaboration Likelihood Model (ELM). According to the ELM, peripheral cues (i.e., simple acceptance/rejection cues) have a greater effect

on persuasion under low involvement conditions, whereas, the quality of message (via central route) has a greater impact under high involvement conditions (Petty and Cacioppo 1979; Petty, Cacioppo, and Schumann 1983). Hence, the ELM would predict that ad size, as a peripheral cue, would likely to be more effective in low involvement conditions than in high involvement conditions. The ELM, however, considers the involvement continuum as being either *high or low*; therefore, a further investigation of the size effects in the context of a wider range of the involvement continuum is warranted.

INVOLVEMENT

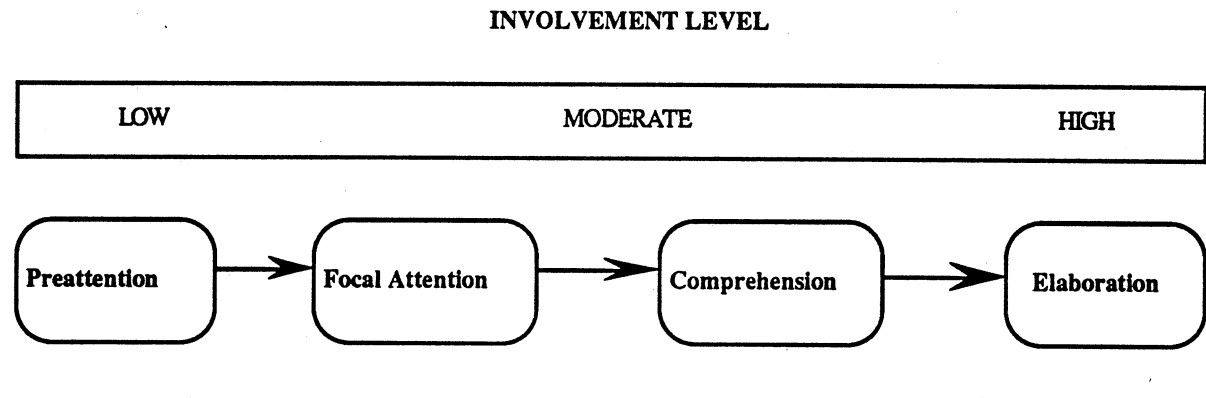
The importance of acknowledging the differences between high and low levels of involvement is evident in many advertising studies. Kassarian (1981) points out that:

Research on the hierarchy of effects in marketing communications is an excellent example of the fact that cognitive activity for low involvement and high involvement are simply different and that one cannot generalize research results from one situation to the other.

Hence, the underlying cognitive processes for the high and the low levels of involvement appear to be the key explanatory factor for the involvement-level specific responses. Specifically, the substantial support for this notion comes from the studies focusing on the attentional and processing aspects of involvement (i.e., Batra and Ray 1983; Celsi and Olson 1988; Cohen 1983; Greenwald and Leavitt 1984; Harris 1987; Mitchell 1981). The consensus of the findings is that involvement mediates the intensity of attentional effort devoted to a stimulus: low levels of involvement elicit minimal or negligible attentional effort - as the involvement level heightens, the attentional level follows suit. The reason for the frugal rationing of attentional effort at low involvement levels has been attributed to *non-arousal* (Mitchell 1979; Woodside 1983), *lack of motivation* (Burnkrant and Sawyer 1983), and *mental laziness* (Harris 1987). In any case, it is evident that relatively little (substantial) cognitive activity takes place under low (high) involvement conditions. This contention is believed to be observable not only in attentional efforts but also in the comprehension measures as well (Cohen 1983; Greenwald and Leavitt 1984; Mitchell 1981), which is consistent with the hierarchical information processing framework.

Hence, at very low levels of involvement (preattentive level), we would expect no significant effects of ad size since the viewers will not even put in the effort to process the advertisement. According to the ELM, however, ad size, as a peripheral cue, should be most effective at low levels of involvement. The conflicting predictions can be resolved by considering what the ELM means by "low" levels of involvement. The central premise of our study is to observe how consumers behave under *natural* newspaper viewing settings without specifically being instructed to evaluate a particular ad in the newspaper.

FIGURE A
Hierarchical Advertising Processing Model



Consequently, in our framework, the subjects who do put in the effort to process the target ad will be considered as at least being *moderately* involved, whereas, the ELM studies specifically instruct all the subjects to evaluate the target stimulus, consequently making the subjects at least *moderately* involved. Hence, the ELM's "low" level of involvement is not equivalent to our definition of *low* (which is *preattentive*); rather, the ELM's "low" is closer to our definition of *moderate*. Henceforth, the study will refer to *low* as *preattentive*.

Unlike the cognitive processes at low levels of involvement, the processing at *moderate* levels of involvement may encounter the constraints of *attention capacity*. Attention capacity is analogous to the related concept of STM (short-term memory) store - once a stimulus occupies part of the attention-capacity space, the availability of "free" attention-capacity space necessarily decreases for another stimulus, which results in reduced cognitive processing for the latter stimulus (Kahneman 1973; Norman 1976). Greenwald and Leavitt (1984) relate this phenomenon to high involvement: "Because high levels of involvement are demanding of a limited resource (attention capacity), involvement in one message is necessarily limited when capacity is allocated to some other message." This notion is also in line with distraction effects (i.e., Batra and Ray 1983; Cohen 1983; Osterhouse and Brock 1970).

The key implication is that attention capacity limitation may operate in different directions for the target ad at *moderate* levels of involvement. Specifically, when categorically considering the higher levels of involvement continuum as *moderate* and *high*, attention capacity limitation may work *against* or *in favor* of the target ad, respectfully. Under *moderate* involvement conditions, the primary attention may be devoted to the target ad's environmental materials rather than to the ad itself (Mitchell 1981; Muncy and Hunt 1984), thereby potentially being subjected to attention capacity limitation (Norman 1976). Consequently, the size effects should be apparent at *moderate* levels of

involvement. Using our definition of *moderate*, this conjecture is also in line with the ELM.

HYPOTHESES

- H1: At a low (*preattentive*) involvement level, there will be no significant difference in attentional effort and comprehension measures between a larger ad and a smaller ad.
- H2: At a moderate involvement level, there will be a significant difference in attentional effort and comprehension measures between a larger ad and a smaller ad.

In sum, we hypothesize an interaction effect between ad size and involvement for both attentional effort and comprehension measures.

METHOD

Research Design

A 2x2 factorial design (involvement: moderate, low x ad size: larger or smaller) was employed. The sample consists of 60 undergraduates of a large Eastern university. We differentiated the involvement levels among the subjects by choosing the ad message as an announcement for a meeting concerning an increase in the graduations requirement effective with the sophomore class. This method of involvement manipulation has been shown to differentiate involvement successfully in past studies (i.e., Apsler and Sears 1968). Furthermore, Rossiter (1981) posits that "personal reference may stimulate reader involvement with the headline," therefore, the headline in the announcement explicitly contained the words "Class of '92 and '93" to ensure the proper manipulation of involvement.

An equal number of moderate involvement subjects (30 underclassmen) and low involvement subjects (30 upperclassmen) were randomly selected. The sample was selected by making room-to-room visits in the undergraduate dormitories (underclassmen

dormitory for moderate involvement group and upperclassmen dormitory for the low involvement group). Since all of the moderate involvement subjects were selected from a freshman dormitory, there were no sophomores in the moderate involvement group. Similarly, since all of the low involvement subjects were selected from a senior dormitory, there were no juniors in the low involvement group.

VARIABLES

Ad Size. There are two ad sizes (larger and smaller) in this experiment which varies the amount of distraction salient for the target ad. The larger ad is a full-page ad, and the smaller ad is a quarter-page ad with editorials around it on the same page. (See experimental procedure for more details.)

Involvement. Two levels of involvement (moderate and low) are used in this study. Moderate (Low) involvement is defined by the information in the ad that is personally (ir)relevant to the viewer. As previously mentioned, we implemented Apsler and Sears (1968)'s method to manipulate involvement. The ad contains information about a new graduation requirement effective with the freshmen and the sophomore class. Therefore, the underclassmen are in the high involvement group, whereas the upperclassmen are in the low involvement group.

Dependent Measures. Two measures are used to measure the subjects' responses. One is the amount of time the subject spends when viewing the ad. This measure acts as a proxy for attentional effort (Celsi and Olson 1988). The other measure is the number of items correctly recalled from the information presented in the ad. The ad contains eight key information (i.e., time and place for the meeting, speaker, language requirement). Hence, recall serves as a measure for the level of comprehension (i.e., the extent of the information processed) (Celsi and Olson 1988; Petty et al. 1983).

EXPERIMENTAL PROCEDURE

A mock school newspaper was prepared for the experiment. The newspaper consists of eight pages: pages one through eight contain all text (i.e., articles and editorials) and no advertisements other than the target ad. The target advertisement was placed after the fourth page. The mock newspaper was varied across treatments as follows: one version contains a full-page size of the target advertisement, and the other version contains a quarter-page size of the advertisement with several current-affair articles filling up the rest of the page as the attention-competing materials. The advertisement was an announcement for a forum for discussing an increase in graduation requirement. The advertisement states that the new policy will go into effect starting with Class of '92. The choice of Class of '92 differentiates the involvement level of the ad: underclassmen are in the moderate involvement group, and upperclassmen are in the low involvement group. During each room visit, the subjects were asked to view the mock newspaper as a prototype of a new school newspaper. The subjects were instructed to view the paper and give

an evaluation of the newspaper. The purpose of this instruction was to prevent the subjects from guessing the research objective. While the subject was viewing the newspaper, s/he was timed for the viewing of the advertisement. The time measure provides a measure for the subject's attentional effort (Celsi and Olson 1988). A stopwatch, which measures the attentional effort, was kept from the subject's view (i.e., in a pocket). After the viewing of the paper was over, the subject was asked to fill out an evaluation form. One part of the evaluation form was a recall test concerning the information in the advertisement. The recall test serves as a measure for the amount of advertisement information processed (Celsi and Olson 1988; Petty et al. 1983). When this procedure was done, the subject was given a debriefing and thanked for the cooperation.

RESULTS

Manipulation Check

Due to the design of the study, a successful manipulation of the involvement levels is inherent in achieving the research objective. We used the subject matter of the announcement to vary the involvement. In order to check the extent of the involvement manipulation, a manipulation check question was included in the questionnaire. The question asked the subjects to rate their interest in the announcement on a 5-point scale (1=low, 5=high). The t-test result ($t=1.99$; $df=39$; $p=0.05$) shows that the mean interest of the moderate involvement group (2.80) was significantly greater than that of the low involvement group (1.86).

Hypothesis Testing

The hypotheses predicted that there will be no significant difference in attentional effort between a larger ad and a smaller ad under *low* involvement. On the other hand, if the involvement level is in the *moderate* range, we expect the attentional effort to be greater for a larger ad than a smaller ad. The average results are given in the *Table*. ANOVA indicates that the interaction effect between ad size and involvement is not fully significant [$F=2.67$; $df(1,56)$; $p=0.10$]. Further analysis of contrast effects, however, show that the findings are directionally in line with the hypotheses for *low* and *moderate* involvement conditions, respectively: no difference was observed in the *low* involvement condition in attention effort between a larger ad and a smaller ad ($t=0.17$; $df=28$; $p>0.05$), whereas the larger ad received more attention than the smaller ad in the *moderate* involvement condition ($t=2.22$; $df=28$; $p<0.05$). See Figure B.

Similarly, the hypotheses predicted that there will be no significant difference in recall between a larger ad and a smaller ad under *low* involvement. If the involvement level is in the *moderate* range, we expect the recall to be greater for a larger ad than a smaller ad. ANOVA indicates that the interaction effect between ad size and involvement is indeed significant [$F=4.30$; $df(1,56)$; $p=0.05$], hence supporting the hypotheses for *low* and *moderate* involvement conditions. Further analysis of contrast

TABLE
The Effects of Size and Involvement on Effort and Recall

Involvement		Advertisement Size	
		Full-Page Ad	Quarter-Page Ad
Moderate	Effort ^a	2.34 (2.00) ^b	1.02 (1.12)
	Recall	1.87 (1.40)	0.67 (1.20)
Low	Effort	1.32 (0.86)	1.24 (1.60)
	Recall	0.53 (0.91)	0.60 (1.12)

^aEffort expressed in seconds.
^bStandard deviations in parenthesis.

effects show additional support the hypotheses for *low* and *moderate* involvement conditions, respectively: no difference was observed in the *low* involvement condition in recall between a larger ad and a smaller ad ($t=0.17$; $df=28$; $p>0.05$), whereas the larger ad was recalled better than the smaller ad in the *moderate* involvement condition ($t=2.48$; $df=28$; $p<0.05$). See Figure C.

DISCUSSION

The main objective of this study was to observe consumer responses to a target advertisement under a freely-attention-allocating, *casually*-newspaper-viewing setting, with *ad size* and *involvement* as the variables of interest. Despite the ad size studies' preoccupation with print ads' attentional value, strangely enough, most size studies have neglected to explicitly consider involvement factors, which play a critical role in the allocation of attention. Hence, this study set out to answer such questions as: "Do size effects exist at all levels of involvement? If not, how do involvement effects mediate the effects of advertisement size? The findings of this study provide some preliminary answers to these questions.

At the *lower* end of the involvement spectrum, we expected to see no significant difference in the amount of attention given, consequently in the number of items recalled between a full-page ad and a quarter-page ad. The rationale for this conjecture is that there is well documented evidence of consumers choosing not to expend any attentional effort on materials personally irrelevant to them. Therefore, an ad, large or small, will have a very small probability of being processed at very low levels of involvement. This seems to be the case with the seniors in the sample. Since the ad message is intended for undergrads, the seniors appear to pay hardly any attention to the message. The seniors' lack of interest is evident in their indications of their interest in the

message (i.e., 1.86 where 1=low, 5=high). Further evidence of low involvement comes from the response measures. In terms of the time spent viewing the ad, the seniors spent on average a little over one second (1.32 seconds for the full-page ad, 1.24 seconds for the quarter-page ad). Consequently they recalled negligible amount of information (0.53 item for the full-page ad, 0.60 item for the quarter-page ad).

At moderate levels of involvement, consumers are believed to somewhat actively process information due to personal interest, relevance, etc. Hence, we hypothesized that, at moderate levels of involvement, there would enough difference in the intensity of processing from low levels of involvement such that the effect of ad size will be apparent. The premise for this conjecture is that, although it is likely that there is active processing of information, there is a fairly good chance that the primary attention may allocated to some other material (i.e., other ads, editorials) in the vicinity. Therefore, the processing of the target ad may be subjected to distractions and/or attention capacity limitation. Thus, we expect the size of an ad to reduce the presence and/or the number of potentially distracting materials, thereby, enhancing the attentional value of the target ad.

For the freshmen in the sample, their involvement seems to be in the *moderate* range. Their interest level indication, significantly greater that of the seniors, is at the 2.80 mark (1= low, 5= high). The means for the attentional effort and the recall measures seem to further support the *moderate* involvement position for the freshmen. The attentional effort for the full-page ad (2.34 seconds) was significantly greater than that for the quarter-page ad (1.02 seconds) ($t=2.22$; $df=28$; $p<0.05$). Similarly, the recall for the full-page ad (1.87 items) was significantly greater than that for the quarter-page ad (0.67 item). Additionally, the amount of time spent and the number of items recalled seem to further

FIGURE B
Interaction Effects of Ad Size and Involvement on Effort

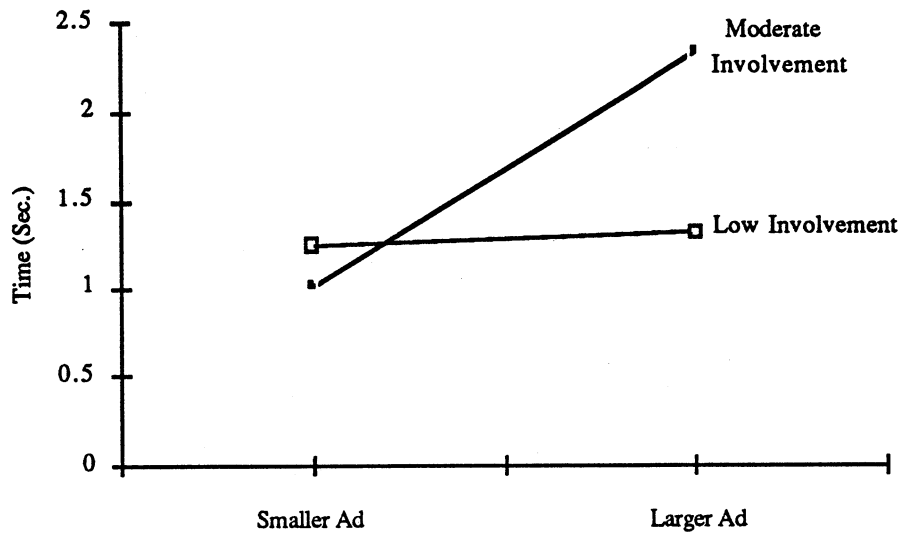
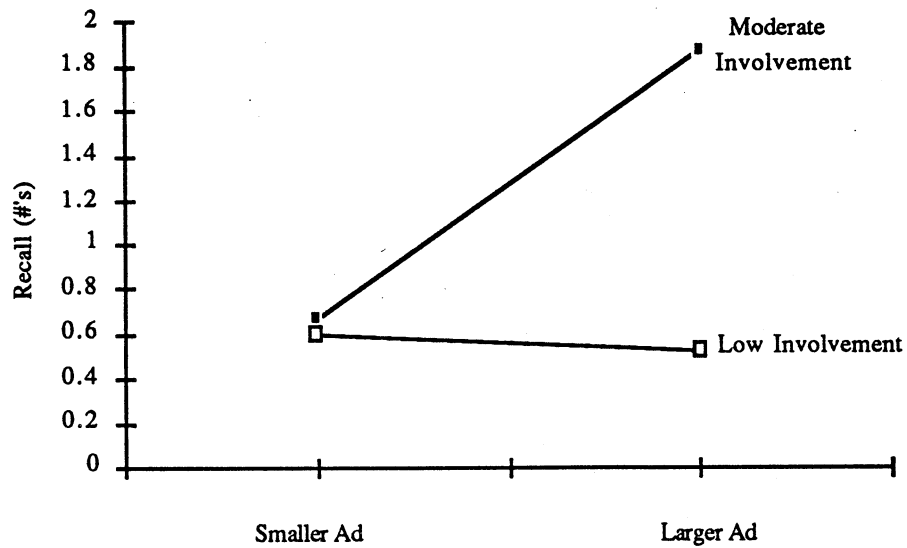


FIGURE C
Interaction Effects of Ad Size and Involvement on Recall



suggest that the freshmen's involvement was moderate.

The contrast analyses at the low and the moderate levels of involvement suggest an interaction between involvement and ad size, which is consistent with our hypothesis. ANOVA confirms the contrast analysis for the recall measure [$F=4.30$; $df(1,56)$; $p=0.05$] but not for the attentional effort [$F=2.67$; $df(1,56)$; $p=0.10$]. The lack of interaction in the

attentional effort may perhaps be attributed to fact that there was more room for measurement error in timing the viewing of the ad in comparison to counting the number of correctly recalled information.

In sum, this study was an exploratory look at how ad size effects might operate at two levels of involvement: low and moderate. The conjectures derived from past involvement and ad size studies suggest an interaction effect, where size effect is not

apparent at low levels but present at moderate levels of involvement. At these levels of the involvement continuum, a significant interaction between ad size and involvement was found for recall but not for attentional effort (however, there is directional support for attentional effort). Thus, although we do not have a direct support, the results lend some support for the distraction/attention capacity limitation explanation at the moderate involvement level.

Hence, one implication of this study is as follows. Given a budget for an ad campaign, one needs to decide on the involvement level of the target audience first. For a low involvement audience, an advertiser should perhaps spend more for frequency rather than for the size of the ad. For moderate involvement audiences, however, size should be a key consideration in addition to the frequency aspect.

LIMITATIONS AND FUTURE RESEARCH

The premise of this study was examining how involvement and ad sizes influence the processing of advertisements. As dependent measures, attentional effort and correct number of recalls were used to determine an ad's effectiveness. Other measures of effectiveness, especially the evaluation of the ad, warrant further research. The advertisement used in this study contains no pictorial materials, therefore, the findings cannot be generalized to all advertisements. Further, the mock newspaper did not carry other advertisements besides the target one. Future studies could incorporate how such factors affect the processing of the target ad. Additionally, other significant advertisement components (i.e., color, bleed, location) need further looking into.

Most importantly, the biggest limitation of this study is that the data does not cover the whole range of the involvement spectrum (i.e., extremely high levels of involvement). The ELM and other studies from distraction/attention capacity area suggest that the effects of ad size may not be apparent at extremely high levels of involvement. Hence, there might be a curvilinear relationship: no effects of ad size at extremely low and high levels but present at moderate levels. Hence, future studies should gather data to cover the whole range of involvement.

Lastly, the findings should be viewed in the light that the results may be study specific. We cannot discount the possibility that the results may have been due to a confound of category involvement.

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Clarifying the Simple Assumption of the Information Load Paradigm

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ABSTRACT

Debate over the "information overload" phenomenon has continued for almost two decades. This paper argues that further theoretical and managerial interest in the subject of consumer mental workload should be directed less toward issues of information quantity and more toward changes in processing quality as consumer mental workload is increased. Recent advances in our understanding of issues relevant to consumer mental workload are reviewed.

INTRODUCTION

To err is human. In September 1989, USAir Flight 5050 dropped into the East River at Laguardia Airport one minute after takeoff. The experienced pilot had attempted the takeoff with the rudder in full left trim. In March 1979, a reactor core at the Three Mile Island nuclear power plant overheated. Supervisors manually overrode an automatically activated coolant pump after misinterpreting control panel indicators, resulting in catastrophe. A month later, a marketer reported the observation that consumers were choosing the wrong product when asked to compare too many features or too many product alternatives (Malhotra 1979, 1982).

Given that human and environmental safety is involved, incidents such as the first two are clearly deserving of a quest to understand what went wrong to cause the human error. As a sort of "information processing system", human ability is subject to the same constraints as any sort of machine system; the human system is certainly limited in its capacity to do work, and, like any machine, exhibits problems of reliability as that capacity limitation is approached. The study of human reliability is based substantially on an attempt to understand causes of error in an entire system which includes both a machine component and a human component (cf., Park 1987; Wickens 1984). Few would argue the importance of understanding the reliability and causes of error that occur in a system composed of pilots, flight controllers, and a myriad of lights, switches, and circuit boards.

Our understanding of human error is equally important, however, with regard to more typical everyday situations. Pressing the wrong elevator button after an intense business meeting or turning on the windshield wiper instead of the headlights while in heavy traffic are individually not serious enough incidents to seem worthy of study. Nevertheless, the occurrence of such everyday incidents does suggest that human processing mistakes are not a rarity, but are, rather, quite normal. The pioneering studies of "information overload" in the marketing discipline were concerned with the everyday mistakes that shoppers might make in the purchase of such mundane products as instant rice (Jacoby, Speller, and Berning 1975), prepared dinners (Jacoby et al.), laundry detergents (Jacoby, Speller, and Kohn 1974), or peanut butter (Scammon 1977). The mistaken

purchase of the "wrong" brand of peanut butter is certainly not, as an isolated incident, a catastrophe of the magnitude of a downed airliner. On the other hand, if enough consumers in aggregate make the same mistake, the result can cost consumers millions of dollars and can result in large profits for the seller of an inferior product. In the case of a product like a house (Malhotra 1982) or even an apartment (Payne 1976a), a decisional mistake could lead to the purchase of an inferior choice alternative with which the buyer and his/her family will have to live for a substantial portion of their lives.

Debate over the existence of empirical proof of such a marketing phenomenon as "information overload" which could lead to purchase mistakes by consumers ensued soon after publication of the pioneering studies (Jacoby 1977, 1984; Jacoby, Speller, and Berning 1975; Malhotra 1982, 1984; Malhotra, Jain, and Lagakos 1982; Russo 1974; Scammon 1977; Summers 1974; Wilkie 1974). More recently, Meyer and Johnson (1989) have voiced additional concerns (see also Keller and Staelin 1987, 1989). As Jacoby (1984) notes, however, even a breakfast cereal package might have over 100 separate items of information, exclusive of additional graphic information, and a single store may carry as many as 90 different brands: that people can and would make mistakes under mentally taxing conditions would seem to be intuitively obvious, whether as pilots of jet aircraft or as everyday consumers.

Science does bear the obligation to provide empirical evidence even for that which appears to be intuitively obvious, and the pioneering studies appear to have provided reasonable evidence in support of intuition. There has been, however, a curious lack of work toward extending the pioneering notion of "information overload" with respect to the broader subject of consumer mental workload; this is only the preface of many more theoretically interesting and managerially rich chapters that still could and should be written on the subject. The notion that there exists some sort of "red line" in peoples' abilities, beyond which there is some kind of breakdown in the reliability of the processing machinery, is conceptually appealing. However, such a "red line", if one exists, is likely to be so smeared and fuzzy in real-world application that it could not alone be especially useful in application by a manager. Moreover, even if a specific "red line" point could be identified, what is a manager supposed to do with this interesting bit of knowledge?

This paper argues that theoretical and managerial interest should not be directed so much toward issues of information *quantity*, but more toward changes in processing *quality* as consumer mental workload is increased. The general purpose of a marketing communication is to inform and persuade, and we should therefore be interested in the kind of information retained and in the changes in attitudes toward a product when a communication is processed

under conditions of low, moderate, and high levels of consumer mental workload. Additionally, this paper argues that we should focus more interest on the quality of particular (non-chance) product choice decisions under conditions of increasing mental workload, rather than the more simple issue of whether or not some "correct" choice, however defined, was made. Although many of the points made in this paper have previously been noted by others (e.g., Jacoby 1975, 1984; Malhotra 1984), this paper attempts to provide a review of recent advances in our understanding of issues relevant to consumer mental workload since the conduct of the pioneering marketing studies. It is hoped that this will help to clarify what it is that "information overload" may or may not mean in the broader context of mental workload and, further, that this will help to stimulate research beyond the simple issue of whether or not consumers can or will be "overloaded".

THE INFORMATION LOAD PARADIGM

The notion of "information load" in marketing has primarily been concerned with product choice "errors" made by prospective consumers under conditions of high informational loads. Information "overload" is assumed to have occurred when the prospective buyer is unable to complete the buying task successfully, as might be evidenced, for example, when an objectively inferior product choice is made by a high proportion of consumers under high load conditions. The underlying cause of this phenomenon is assumed to be due to a "limited capacity" processing system, and that approaching this limit results in decisional errors (cf., Malhotra 1982).

These assumptions necessarily parallel those of the notion of "mental workload". The concept of mental workload, from engineering psychology, is concerned with errors made by human operators of machine systems under conditions of high mental loads. "Overload" is assumed to have occurred when the operator is unable to complete the task successfully (cf., Albanese 1977, cited in Willeges and Wierwille 1979). The underlying cause of this phenomenon is assumed to be due to a "limited capacity" processing system, and that approaching this limit results in operator error (e.g., Wickens and Kramer 1985; Willeges and Wierwille 1979). The notion of information overload, then, appears to be entirely consistent with the notion of mental workload; "information load" is apparently a limited subset of the broader concept of "mental workload". As such, these should, as concepts and as constructs, share certain similarities and limitations.

THE MAGICAL BUT FUZZY RED LINE

The "information overload" studies in marketing appear to have verified that prospective buyers can make dysfunctional choice decisions under conditions of heavy informational loads. Finding that participants in his study exhibited the effects of "overload" when confronted with 10 or more alternatives in the choice set or with information on 15 or more attributes, Malhotra (1982) suggested that future investigations should attempt to more clearly

"determine the critical number of alternatives and attributes to information processing breakdown"; Miller's (1956) "magical number seven" is certainly an intriguing concept. There are, however, a number of reasons as to why it is unlikely that such a number can be identified in any marketing context and why this number alone would not be of much practical value.

The Multidimensionality of the Workload Construct

Although "overload" in the context of mental workload can be operationally defined with respect to increases in task performance error, there currently appears to be a consensus that there is yet no generally accepted definition of "mental workload" (cf., Chiles and Alluisi 1979; Wickens and Kramer 1985; Willeges and Wierwille 1979). The detection of "overload" is generally based on single-task performance measures, as when the "wrong" product is chosen in an information load task. There are also other measures of mental workload, including concurrent (aka dual-task, secondary, subsidiary) task performance measures, physiological measures, and self report measures (cf., Owen 1990a). This variety of measures alone would seem to indicate that mental workload is composed of many dimensions. Human performance researchers have recently made attempts to clarify various dimensions that may be involved in subjective perceptions of the workload construct, as in the conjoint approach of the Subjective Workload Assessment Technique (SWAT), which attempts to account for the workload dimensions of time load, mental effort load, and psychological stress load (e.g., Reid, Shingledecker, Nygren, and Eggemeier 1981; Tein 1989), or the NASA-TLX (Task Load Index) rating approach (Hart and Staveland 1988), which attempts to account for nine individual dimensions. The implication is that in various real-world marketing situations, "overload" is likely to occur at various points, depending on how various dimensions are affected at the time the marketing communication is received. The marketer would often not have control over all dimensions of workload, e.g., how much time the prospective buyer has to spend making product comparisons, which can affect the exact location of the overload "red line".

The Limited Resource Issue

There is substantial evidence of qualitatively different forms of processing mechanisms, and the mere observation of some quantitative threshold of "overload" is of limited value (cf., Owen 1991). From the perspective of attention theory, there is substantial evidence of multiple processing resources (e.g., Friedman and Polson 1981; Friedman, Polson, and Dafoe 1988; Isreal et al. 1980; Kantowitz and Night 1976; Navon and Gopher 1979; Sanders 1979; Wickins 1980, 1984; Wickens and Kessel 1980), each with its own "capacity" limitations, implying that "overload" may occur at different points, depending on what combinations of resources (e.g., mathematical, graphic, textual, oral) are engaged for any particular task.

Additionally, the "capacity" explanations of processing necessarily require the notion of automatism (Stelmach and Hughes 1983); there is evidence of an automatic mechanism of processing which does not consume from "capacity"-limited resources (e.g., Fisk and Schneider 1984; Schneider 1985; Schneider and Fisk 1983; Schneider, Dumais, and Shiffrin 1984; Shiffrin, Dumais, and Schneider 1981; Shiffrin and Schneider 1977), with the implications that there may be differences in the "overload" threshold for the processing of some kinds of information for some people and that new informational inputs will not be retained in memory. Related to the notion of automatism is evidence that processing can sometimes be a "skill" (e.g., Gopher in press; Hirst 1986; Hirst, Spelke, Reaves, Caharack, and Neisser 1980; Spelke, Hirst, and Neisser 1976), with similar implications. For example, "novice" shoppers of a particular product class may experience "overload" at a different point than "experienced" shoppers. The engagement of qualitatively different forms of processing resources will presumably result not only in different levels of an "overload" threshold, but may also result in qualitatively different outcomes with regard to learning information from a marketing communication.

Moderators of Processing Ability

A number of individual-specific traits may moderate "capacity" or other forms of processing interference that could lead to processing outcome errors (e.g., Gopher and Kahneman 1971). One capacity-based measure, concurrent task performance, has been associated with such individual traits as demographic (Stapleford 1973) and personality variables (Huddleston 1974; Huddleston and Wilson 1974). The effects of distraction also appear to be related to personality (Morgenstern, Hodgson, and Law 1974). Processing ability appears to be affected by the biological effects of aging (Kochhar 1979), apparently increasing from childhood through adulthood (Halford, Maybery, and Bain 1988), although further aging may negatively affect processing abilities (McDowd and Craik 1988). Additionally, a number of environmental factors could affect processing abilities. These might include food intake (Lisper and Eriksson 1980), noise (Finkelman and Glass 1970; Finkelman et al. 1977), sleep (Collins 1977), temperature and clothing (Vickroy, Shaw, and Fisher 1982), and perhaps even time of day (Malaviya and K. 1976). The overload "red line" could differ not only between individuals, but even within individuals, depending on environmental factors.

Heuristic and Peripheral Processing

From the perspective of persuasion and attitude change, there is also evidence of qualitatively different forms of information processing. There is evidence that people will sometimes engage in an objective or "systematic" mode of processing, but may at other times engage a more "heuristic" based mode of processing (e.g., Chaiken 1980; Chaiken, Liberman, and Eagly 1989). Related to this is evidence for the notion that people can sometimes engage a "central"

mode of processing, where issue-relevant information is elaborated upon, and can at other times engage a "peripheral" mode of processing, where non-issue-relevant information may be elaborated upon or where elaboration may not even be engaged (e.g., Petty and Cacioppo 1981, 1986). Although the engagement of qualitatively different modes of processing may result in similar levels of initial attitude changes, the persistence (Haugtvedt and Strathman 1990) and resistance (Haugtvedt 1989) of attitudes (i.e., delayed effects) may be very different.

There are two implications associated with this. The engagement of a "peripheral" mode of processing may require the use of capacity-consuming effort, as when some sort of heuristic is used, or may not require the consumption of much capacity, where a person can be influenced by the peripheral features of a communication without deliberately using some sort of decision heuristic. This would roughly correspond to what Owen (1990b) calls "controlled/peripheral" and "automatic/peripheral" processing. Whether or not "capacity" gets used will affect whether or not a person made a decision that was affected by "overload", since overload is presumably a capacity-based construct. Exactly how one would define the overload "red line" under these conditions is not clear.

The other implication is that there is more at stake than just the decision outcome. Exactly how increases in mental workload affect attitude change processes is at least as important as any immediate decision outcome of the effects of mental workload. The pre-purchase process associated with products such as houses, automobiles, life insurance, or complex, expensive appliances is likely to result in a high level of motivation to process information as well as a high level of information load due to the difficulty in comparing features between such products. It is possible, perhaps likely, that many prospective purchasers of such products would not make an immediate decision when comparing products, but would take several days to "think" about the merits of the products. What should be of more interest in situations of high mental workload, then, are differences in the nature of attitude changes under these conditions, which could affect a *future* product choice decision.

Issues of Practical Application

As a sort of bench mark, knowledge that consumers can compare five or ten attributes or alternatives before exhibiting the effects of "overload" (cf., Malhotra 1982) is useful. The problem in a marketing context is that a number of constraints get in the way of making good use of this as a precisely defined point. Even if one could identify the magical number that defines the "red line" point in the number of product alternatives and number of attributes that people can consider before exhibiting the effects of "overload", it would have little managerial use in many situations. If the prospect wants to look at ten houses, the real estate agent cannot stop him/her. If the government mandates information on product packaging for the sake of consumers' right to know, then the seller must

comply. If a life insurance agent is attempting to close a sale on a prospect, but the prospect is being deliberately "overloaded" with too much confusing information on too many policies by a competitor attempting to foil the sale, knowledge that the prospect is likely to have "overloaded" is, alone, of little value. However, an understanding of the process that leads to recall and to attitude change, attitude persistence, and attitude resistance under these conditions could be useful in the design of more effective marketing communication strategies.

DISCUSSION

The results of the marketing "overload" studies appear to support Miller's "magical number seven" as a rough benchmark. The debate resulting from these pioneering studies has also flushed out some crucial conceptual and methodological issues, providing a firm footing for future work on issues of the effects of mental workload in marketing situations. The preface to this interesting and practical subject has been written. Curiously, however, there has been very little work on the subject of consumer mental workload since the pioneering "overload" studies of the seventies.

The problem closing this issue at this point is that the identification of some quantitative threshold of "overload" has little practical use beyond providing a rough benchmark. This paper has discussed a number of qualitatively different processing mechanisms that can be engaged. The threshold might change, depending on how different kinds of informational inputs engage different combinations of processing resources, and depending on the processing skills of the person or population of message recipients. A number of other factors have also been discussed, such as individual differences, age, clothing and temperature, or time of day, which could affect an individual's ability or motivation to process a marketing communication. Any quantitative "red line" value that is identified as the outcome of a study could potentially be a mere artifact specific only to a particular experimental setting and may not be valid in other settings.

A more theoretically interesting and managerially useful issue regards the *quality* of processing under conditions of increased mental workload, regardless of the exact location of any overload "red line". The general purpose of a marketing communication is to inform and persuade, whether that communication be the labeling on a package, the appeals of a TV commercial, or an encounter with a salesperson. People do not always make some "correct" or "incorrect" decision choice when receiving a marketing communication; it is more likely that most marketing communications lead to the remembering of information and to changes in attitudes. Such learned information and attitudes are likely to affect some choice decision at a future time and are additionally, and importantly, likely to affect perceptions of product performance (i.e., satisfaction) after a purchase is made.

Even if one does consider the situation where a product choice decision is made at the point of the

marketing communication (as when comparing package labeling in a store), the purchaser does not make a simple "correct" or "incorrect" choice. There may exist one single objectively best choice for that particular individual, but what actually happens when the person makes a choice that results in the purchase of a product that was not the "correct" choice? Although too much information could lead to human error, what is the *quality* of whatever choice was made? It is unlikely that the purchaser in this situation can make only a "correct" choice or a *random* incorrect choice.

If we assume that a consumer will attempt to make a reasonable (satisficing) choice, even if they lack the ability to adequately process information due to "overload", then we cannot assume that they would make a random incorrect choice. It is quite possible that people use simplifying heuristics based on, say, "peripheral" clues to product quality, such as the appearance of the packaging material or the furnishings in an attorney's office (cf., Jacoby 1984; Olson and Jacoby 1972; Shostack 1977). It is also possible that people can be influenced by more subtle "peripheral" cues in the situation that they do not deliberately consider, as in the automatism that may be associated with stereotyping (e.g., Devine 1989). If one assumes that people do attempt to make "reasonable" decisions, and are influenced by peripheral clues or cues, would it not then be possible to predict what kind of decisional error would be made? Would it not be possible to influence the outcome of potential errors with different strategies in packaging, in personal selling, or other forms of communication?

Two information processing models which attempt to integrate issues of "capacity" with issues of consumer memory and attitudes are those of Bettman (1979) and Owen (1990b). Perhaps such models hold some insights regarding the delayed effects of consumer mental workload on such factors as memory and attitude. Work related to consumer mental workload has addressed such issues as automatism (Palmer and Jonides 1988) and heuristics (Formisano, Olshavsky, and Tapp 1982; Lussier and Olshavsky 1979; Payne 1976a, 1976b), and the recent line of research addressed by Keller and Staelin (1987) has addressed the issue of information quality, rather than quantity.

Attitude theories and capacity-based attention theories recognize the influence of motivation and ability on human information processing. Certainly, information load affects and is affected by both motivation and ability (cf., Muller 1984), which are perhaps greater confounds in real-world consumer situations than they might be in the settings of astronauts or airline pilots. A severe limitation to the concept and construct of mental workload as it is studied in human factors is that these researchers are concerned with human error at the time of a task without regard to the delayed effects that workload may have. The effects of mental workload on memory, on changes in attitudes, and on the quality of *future* decisions appears to be, importantly, an issue unique to the discipline of marketing.

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The Influence of Level of Involvement on the Feature Matching Process in Consumer Preference Judgments

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ABSTRACT

Previous research has indicated that Tversky's (1977) feature matching model of similarity judgments can be applied to judgments of preference (Houston, Sherman, & Baker, 1989). However, this research has examined preference judgments only under conditions of low involvement. This study investigated the hypothesis that the feature matching process by which the features of the more recently presented product (the subject) drive the comparison of features with the earlier product (the referent) would be attenuated under conditions of high involvement. As predicted, under high involvement, the subject was preferred equally under unique positive and unique negative conditions.

INTRODUCTION

People are frequently in situations in which they must make preference judgments by comparing alternatives. Individuals contemplating a vacation may be faced with the task of determining which of two or more vacations they prefer. At other times they must make preference decisions between competing automobiles or alternative houses. Recent research indicates that, if one controls for the attractiveness of the alternatives, relative preference can be affected by the order in which the alternatives are considered. Houston, Sherman and Baker (1989) found that when people were asked to compare the desirability of alternatives, they were more sensitive to the unique information provided by the more recently presented alternative. Their results were consistent with predictions derived from a feature matching process (Tversky, 1977) and indicated that Tversky's model of similarity judgments can be applied to judgments of preference. The current research seeks to further our understanding of the role played by feature matching in consumer preference judgments and to determine whether the feature matching process will manifest itself under conditions of heightened involvement.

Feature Matching

Tversky (1977) presented a feature matching process that attempts to explain comparison processes in judgments of similarity. According to Tversky (1977), comparisons of objects involve a subject of comparison and a referent. In a comparison of the form "A is like B" (e.g., Ford is like Chevrolet) "A" is the subject, and "B" is the referent. Perceived similarity differs depending upon whether people are asked whether A is like B or B is like A.

In Tversky's model, objects may be represented as sets of features. These objects are assumed to have shared features (i.e., features belonging to both a and b) and/or unique features (i.e., features belonging to a but not b and features belonging to b but not a). It is argued that, in a similarity judgment task such as

judging the similarity of a to b, people naturally focus on the subject. They compare the features of the subject with the same features of the referent. According to Tversky (1977), the features of the subject are weighted more heavily than the features of the referent. Thus, "the features of the subject control the agenda of the comparison" (Houston et al., 1989, p. 122), and judged similarity is affected more by the unique features of the subject than the unique features of the referent. Tversky (1977) reported research with pairs of countries (e.g., U. S. A. - Mexico), pairs of figures, and pairs of letters to support the propositions of the feature matching process.

Houston et al. (1989) examined implications of the feature matching process for preference judgments. For each of several categories (e.g., automobiles, vacation spots) they constructed feature-based descriptions of alternative items or persons. The descriptions were constructed so they had either unique good and shared bad features or unique bad and shared good features. Overall desirability of the features used in each description was held constant making each alternative equally desirable. In Experiment 1, participants were instructed to try to form a general impression of each item or person. They were then shown a set of category descriptions. After people viewed the first item in each pair they were given a second item for each pair and asked to indicate their preference on a 12-point scale varying from strongly favor the first item to strongly favor the second item. It was expected that, by keeping participants unaware of the experimental task until they viewed the second item in each pair, the second item in each pair would become the subject of the comparison (cf., Agostinelli, Sherman, Fazio, & Hearst, 1986). Greater preference was shown for the first item when both the first and second item contained unique bad features than when both the first and second item contained unique good features. These results are consistent with use of a feature matching process in which the second item is the subject and the first item is the referent.

In Experiments 2 and 3, Houston et al. (1989) attempted to make the first item the subject of comparison. Although these attempts to manipulate the subject of comparison were unsuccessful, the feature matching process was replicated such that when both items had unique negative features the first item was preferred more strongly than when both items had unique positive features. To summarize, the Houston et al. (1989) results are consistent with the position that, when subjects are exposed to complete presentations of the items (i.e., all the features at once) they spontaneously form preference judgments by a feature matching process upon their exposure to the second item in a category.

Involvement

An important way to further our understanding of the feature matching process is to prescribe its limits. Research that has examined the role of involvement or personal relevance on persuasion has shown that increasing involvement increases the tendency of people to engage in a careful consideration of message arguments (Petty and Cacioppo, 1986). For example, Petty, Cacioppo and Schumann (1983) manipulated involvement by leading people to believe they would be able to choose a product as a gift to take home. The high involvement group was led to believe they would be able to take home a brand of disposable razor whereas the low involvement group believed they would be able to take home a product in a different product class. Subjects were then exposed to a series of ads including an ad for a disposable razor which contained either strong or weak product arguments. Data indicated that argument strength (i.e., whether the described product features were weak or strong) had a greater impact on attitude toward the product under high involvement than low involvement. This result is consistent with the position that subjects engage in greater elaboration of the message arguments under high involvement than low involvement.

In Houston et al. (1989), level of involvement was not manipulated and subjects were given no expectations that their task was self-relevant or had any important consequences. Thus, there is no evidence that suggests that feature matching, a low effort strategy, is prevalent in important contexts where the alternatives themselves or possible outcomes of the decision heighten the level of involvement.

We hypothesized that conditions of high involvement should motivate people to more carefully consider the information about the first product at the time that it is presented. Moreover, we expect that high involvement subjects will more thoroughly process that information than will low involvement subjects. When subsequently induced to make a preference judgment, they will be more likely than low involvement subjects to utilize the more thoroughly processed information in their decision making. In other words, greater consideration of information from the first product presented has the effect of equalizing the weights of the features assigned to the subject and the referent. Consequently, we expect that increasing involvement will moderate or eliminate the biasing effects of unique features of the second item in preference decisions.

Finally, we expect that these effects will be reflected in recall (Gati & Tversky, 1987). According to the feature matching process, the unique features of the subject drive the comparison process. If this is the case, one would expect greater recall of the unique features of the subject than of the referent. However, we hypothesized that if individuals in the high involvement condition are exerting enough effort to attenuate the feature matching effect, then their recall scores should parallel this. That is, these individuals should recall equivalent amounts of unique information from the first product as from the second product.

The following study was conducted in order to achieve three goals. First, because Houston et al. provide the only demonstration of the use of a feature matching process in preference judgments, our first step was to replicate their findings with vacation spots, a category they utilized. Next, we examined the use of a feature matching process under conditions of manipulated low involvement. If Houston et al. subjects were indeed uninvolved in the decision process, then data from subjects manipulated to be in a low involvement state should mirror the Houston et al. findings and our own replication. Finally, we examined the use of the feature matching process under conditions of high involvement.

METHOD

Subjects

Subjects were 146 students at Ohio State University who participated in partial fulfillment of a course requirement. Subjects participated in groups ranging in size from 10 to 25.

Materials

Subjects were presented with descriptions of two products for each of two product categories: vacation spots, and pens. In addition, subjects were presented with descriptions of two products from the soft drink product class, which was included only as a filler product for the manipulation of involvement. Each product description consisted of a list of six descriptive phrases (features). For example, features for vacation spots included "beautiful scenery", "overcrowded", and "reputation as a tourist trap." Features for pens included "expensive", "ink smudges" and "looks professional."

Pretests were conducted to create products with comparable sets of features. Each feature was rated for positivity and importance using a procedure similar to that of Houston et al. (1989). Pretest subjects were given a large list of possible descriptive phrases for one of the product categories. For each of the descriptive phrases, subjects were asked to rate on 9-point scales how positive they found the feature (1-negative, 9-positive) and how important they found that feature (1-not at all important, 9-very important).

Mean positivity ratings were then computed for each descriptive feature. For each product category, features whose mean positivity ratings were not statistically different and whose importance ratings were similar were chosen. For each product category, three lists of features were constructed. Each list consisted of three positive features and three negative features. The pairing of one set of two lists of features resulted in product descriptions that shared positive features but had unique negative features, while another pairing resulted in products which shared negative features but had unique positive features. Within each pairing, order of list was counter-balanced. This procedure insured that subjects were choosing between products which were evaluatively equal.

Procedure

The procedure in the present experiment was derived from the procedure employed by Houston et al. (1989). Subjects were randomly assigned to be in unique positive or unique negative conditions for vacation spots. These same subjects also participated in an additional condition in which involvement with the pen decision was manipulated.

Subjects were seated for the experiment in a manner which prevented interaction. They were told that the purpose of the experiment was to investigate how individuals formed impressions of products. Therefore, they would be presented with descriptions of three types of products.

At this point the manipulation of involvement occurred. This manipulation is modeled after the procedure employed by Petty, Cacioppo, and Schumann (1983). Subjects were told that in appreciation for their participation, they would receive a small gift. High involvement subjects were told their gift would be a pen and that they could choose their pen from among a variety of pens. In addition, subjects were told that the pen they would see described would soon be marketed in their city.

Low involvement subjects were told that they could choose their gift from among a variety of soft drinks and that the soft drinks they would see described would soon be marketed in their city. Therefore, these subjects were expected to be uninvolved with the pen descriptions (cf., Petty, Cacioppo, & Schumann, 1983).

Subjects were then presented with the first booklet which contained descriptions of three products, one from each of the product categories. Subjects were paced through the descriptions and were given 20 seconds to view each descriptive list.

After finishing with this booklet, subjects were given a second booklet. Subjects were told that the booklet contained descriptions for another brand in each of the product classes contained in the first booklet. Subjects were to view each of the descriptions and then state a preference for either the product they saw first or second for each of the product types. Preferences were expressed on a 12-point scale with endpoints labeled "strongly prefer first product" and "strongly prefer second product."

In addition to this preference scale, subjects responded to two measures designed to assess the effectiveness of the involvement manipulation. Subjects also responded to a series of ancillary measures and were asked to recall as much of the information concerning each of the pen descriptions as they could.

RESULTS

We first attempted to replicate Houston et al.'s findings. In addition, we tested two hypotheses: 1) subjects in a manipulated low involvement state would use the feature matching process in making their preference judgments as in Houston et al., and 2) use of the feature matching process would be attenuated for high involvement subjects.

Subjects expressed their preference for each product category on a 12-point scale (1 = strongly

prefer first product, 12 = strongly prefer second product). T-tests were conducted on responses to this scale for the vacation product category as a function of feature matching condition (unique positive features vs. unique negative features). This analysis revealed a significant feature matching effect, $t(135) = 2.87$, $p < .01$. These data replicate those of Houston et al. (1989) and indicate that individuals who viewed vacation spots with unique positive features preferred the second product ($M = 6.5$) more than individuals who viewed vacation spots with unique negative features ($M = 5.1$).

In order to check the effectiveness of the involvement manipulation, subjects were asked to indicate on two self-report measures how hard they were concentrating, and how much attention they were paying to the descriptions of the pens. A mean of these two measures was computed and served as our measure of involvement. A t-test of this measure comparing high involvement subjects to low involvement subjects revealed a significant difference, $t(127) = 2.08$, $p < .05$, indicating that high involvement individuals reported paying more attention to, and concentrating harder on the pen descriptions than did low involvement individuals.

Next, we examined preferences of low involvement subjects as a function of feature matching condition. As expected, this analysis clearly indicated that subjects who received products with unique positive features more strongly preferred the second item ($M = 6.8$) than did subjects who viewed products with unique negative features ($M = 4.9$), $t(135) = 2.21$, $p < .03$. Because these results parallel the Houston et al. findings and our own replication reported above, it seems likely that the Houston et al. study was conducted in a low involvement context.

Finally, we examined preferences of high involvement subjects as a function of feature matching condition. As predicted, t-tests indicated that individuals in the high involvement condition were no more likely to favor the second product when they saw products with unique positive features ($M = 5.9$) than when they saw products with unique negative features ($M = 5.2$), $t(135) = .90$, $p > .35$. Thus, the feature matching process was eliminated in a high involvement context.

In addition, subjects were asked to recall as many of the features from each of the pen descriptions as they could. We expected that under low involvement, recall of the unique features of the subject of comparison (i.e., the second product presented) would be higher than recall of the unique features of the referent. However, we expected that under high involvement, this recall difference would disappear. The number of unique features recalled from the first product was compared with the number of unique features recalled from the second product for high and low involvement. This analysis indicated that low involvement subjects recalled more unique features from the second product ($M = .59$) than from the first product ($M = .09$), $t(65) = 1.91$, $p = .06$. In contrast, high involvement subjects did not recall a greater number of unique features from the second item

($M = .63$) than from the first item ($M = .53$), $t(75) = .37$, $p > .70$.

DISCUSSION

The results of this study further attest to the role of Tversky's feature matching model in preference judgments while also increasing our understanding of the process and the conditions under which it may be attenuated. Under low involvement conditions, the process by which the features of the more recently presented product (the subject) drive the comparison and retrieval of features from the earlier product (the referent) was exhibited for both vacation spots and pens. For each category, two pretested, evaluatively equal brands were presented. In each case, if the subject had unique positive features it was preferred, but if the subject had unique negative features, the referent was preferred.

This study also elucidates conditions under which the feature matching process does not determine preference judgments. When making comparisons using the feature matching process, people may consider the features of the first product only once the features of the second product are presented. This allows the features of the second product to drive the comparison (Houston et al., 1989). If this tendency was eliminated, then the biasing effects of order that are necessary in the feature matching process might be greatly reduced. In accordance with this reasoning, we hypothesized that conditions of high involvement would motivate people to more carefully consider the information presented about the first product at the time that it is presented, thereby increasing the weights assigned to the features of the referent and making them more nearly equal to the weights assigned to the features of the subject. Under such conditions, the feature matching effect should be significantly attenuated.

In the present study, an examination of the effect of level of involvement supported this hypothesis. For low involvement subjects, the feature matching effect was significant, but for high involvement subjects, the effect was eliminated such that the subject was preferred equally under unique positive and unique negative conditions. This effect of involvement on feature matching may be understood in terms of Tversky's assumption that weights are associated with the features of each item. For low involvement, the weights assigned to the features of the subject are greater than those assigned to the referent. In fact, the weights assigned to the unique features of the referent may fall to zero such that those features are not considered in the comparison process and will not be recalled. However, under high involvement, the weights for the features of the subject and the referent are more likely to be equal and non-zero, thus increasing the overall recall.

Thus, the use of the feature matching process in making preference judgments appears to be limited to low involvement settings such as those in which the difference among the alternatives is considered relatively unimportant or the outcomes of the decision are not considered serious. It may be worth noting that a real-world manipulation of involvement may be

stronger than that accomplished in the laboratory. Such a manipulation should result in a pattern of data which is even more dramatic than the present data.

We also found support for the hypothesis that the influence of the process of feature matching on recall of unique features would be affected by level of involvement. Because the information about *both* products is considered more seriously under high involvement conditions, these individuals recalled an equivalent amount of unique information from the first product as from the second product. However, under low involvement more unique features were recalled from the subject than from the referent. Because this recall effect occurs with unique features only, a simple recency explanation is untenable.

These data are encouraging because they mirror the data concerning the effects of involvement on preference judgments. In both cases, differences under low involvement were significant whereas there were no differences under high involvement. Our hypotheses regarding the effects of involvement on preference judgments and on recall of unique features both stem from the more general prediction that the operation of the feature matching process is influenced by level of involvement. Thus, these parallel findings give us greater confidence that the results concerning the effects of involvement on the feature matching process are reliable.

If in fact high involvement subjects are engaging in feature matching, then the biasing by-product of the feature matching process may be reduced because all information is being considered. Alternatively, high involvement subjects may not be using a feature matching process at all. The recall data may be useful in distinguishing the feature matching process from a memory-based recall/accessibility process as has been suggested by Houston and his colleagues. If the feature matching process is not occurring under high involvement, then a more memory-based process may be functioning. In this case, subjects form evaluations of the products for the comparison task by using features of the products which are accessible in memory (Houston et al., 1989). If this memory-based process is utilized under high but not low involvement, then we would expect higher correlations between recall of unique features and preference under high involvement (Hastie & Park, 1986).

Analyses of the recall data lend tentative support to the above hypotheses. Correlations between recall of unique features and preference were computed for high and low involvement for unique positive and unique negative features. The correlations under high involvement were .16 and .15, while under low involvement, they were .07 and .06. These correlations approach statistical significance ($p = .17$) for high involvement subjects only. Although these data clearly are not conclusive, they do *suggest* the possibility that a feature matching process determines preference judgments in low involvement settings while a memory-based accessibility process determines preference judgments in high involvement settings. One goal of future research may be to more clearly resolve this issue.

The present study advances our understanding of the process by which people make preference judgments in a number of important ways. First, it affirms the surprisingly influential role of the feature matching process in individual preference judgments. When comparison alternatives are close on the evaluative scale and people are not especially motivated, the unique features of the subject of comparison will play an inflated and critical role in the preference judgment. This may occur in many real world settings in which information is serially presented such as when viewing successive advertisements from the same product class or when shopping in several stores for a product.

More importantly, our findings suggest an important limiting condition of the feature matching process. Individuals in high involvement settings engage in sufficient initial processing of comparison alternatives to wipe out the feature matching effect. Indeed, there is tentative support to suggest that instead they may be using a more memory-based process. Thus, the biasing process of feature matching may be less prevalent in important contexts where the alternatives themselves or possible outcomes of the decision heighten the level of involvement. This may be especially true in situations where the self is implicated or is an alternative in the comparison process. In such cases, we may expect more thoughtful and elaborative strategies to supersede the feature matching process.

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A Spreading Activation Model of Consumers' Asymmetric Similarity Judgment

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ABSTRACT

Consumers often make asymmetric similarity judgments which are explained via Tversky's contrast model. This paper attempts to explain asymmetric similarity judgments by using the spreading activation models of semantic and declarative memory. It is proposed that the time taken for activation to spread from one node to the next is related to, and gives rise to, asymmetric similarity judgment.

INTRODUCTION

An essential component in the study of marketing and consumer behavior is that of consumer judgment and choice processes. These judgment and choice processes are based, to some extent, on cognitive representations -- consumers' internal memory structures -- as well as information which is acquired externally (Bettman 1979; Johnson and Puto 1987). While a plethora of research had been conducted on what, how and why of external information acquisition, research on cognitive representations of consumers has been rather limited (Gardner, Mitchell and Russo 1978; Johnson and Puto 1987). This state of affairs is rather sad as cognitive psychology provides a number of research streams and models in the area of cognitive representation (Anderson 1983; Collins and Loftus 1975; Smith, Shoben and Rips 1974). This paper provides an indirect testing of cognitive representation of brands in the tradition of Gardner, Mitchell and Russo (1978) and Meyers-Levy (1989).

A second stream of research in consumer judgment and choice process has dealt with the idea of similarity and proximity judgment. However, similarity relations have generally been dominated by geometric models in which objects are represented by points in a Euclidean space (Shepard 1974). Tversky (1977) has proposed a contrast model in order to overcome the metric assumption of geometric models. One of the strengths of contrast models is its capability to explain asymmetric similarity judgments. For example, according to geometric model of similarity judgment if a consumer feels that coke is similar to pepsi than it follows that she must feel pepsi to be equally similar to coke. However, consumers do make asymmetric similarity judgments. Thus, a consumer may find coke to be very similar to pepsi and at the same time pepsi to be less similar to coke (Johnson 1986). While Tversky (1977) has provided empirical support for the contrast model he has not related it to the various models of cognitive representation. This paper is an attempt in this direction.

Specifically, a network model of declarative memory (Anderson 1983) is proposed. The nodes of this network are occupied by brands with their related network of attributes. When nodes are activated,

activation spreads to all other nodes connected to the activated node (Collins and Loftus 1975). The time taken for activation to spread from one node to another is hypothesized to be linked to similarity judgment. Asymmetric similarity judgment is proposed to be the result of differential time taken for the activation to spread from one node to another.

In the following sections we will first briefly describe the network model of memory. Then Tversky's contrast model of similarity judgment will be delineated. Finally, a conceptual model will be proposed to explain asymmetric similarity judgment via the network model of memory.

MODELS OF SEMANTIC MEMORY

Although various models of semantic memory have been proposed (e.g., Hierarchical-Network model of Collins and Quillian 1969; Feature-Comparison model of Smith, Shoben and Rips 1974; Spreading-Activation model of Collins and Loftus 1975) we will focus on spreading activation models. The reason being that the spreading activation, or network, models have better fared the scholarly scrutiny of various researchers (Chang 1986).

According to the spreading activation model of Collins and Loftus (1975), the concepts (or brands in this case) are represented in memory as nodes, and relations between brands are represented as associated pathways between the nodes. There could be multiple paths of various strengths and lengths between brands. For example, coke could be one such node in a consumer's memory while different attributes of coke (carbonated, cola, distinctive taste, etc.,) could be connected to the node 'Coke' by associated pathways. Another brand of soft drinks (e.g., pepsi) may share some of the attributes of coke (e.g., carbonated) while it may also have some unique attributes of its own. The attribute 'carbonated' is thus linked both to coke and pepsi. The more attributes two brands have in common, the more links there are between the two nodes, and the more related in memory the two brands will generally be. When a brand is activated, for example when attention is focused on coke, the activation spreads out in a decreasing gradient along the links emanating from the activated brand. This activation may reach the node 'Pepsi' via the attribute node 'carbonated'. When a path is found between two brands, i.e., two spreading activations intersect, a decision regarding them could be made (Collins and Loftus 1975). Cognitive psychologists seem to use the concepts of activation spreading from node 'a' and reaching node 'b', and spreading activations from node 'a' and node 'b' intersecting interchangeably (Ratcliff and McKoon 1981).

Anderson (1983) has proposed a similar process in his ACT* model of human memory. According to his model, brands or nodes have an activation value associated with them which reflect the

current importance, relevance, or availability of the node in memory. The links between nodes have weights associated with them which are determined by the strength of associations between the connected nodes. For example, if coke is regarded as the most popular soft drink then the link associating node 'Coke' to node 'soft drink' will have more weight associated with it reflecting the strength of association between the two nodes. On the other hand, if coke is not thought of as a food item then the weight of the link associating node 'Coke' to node 'food' will be relatively low, or there will be no such link. When a node is activated the spread of activation is modulated by the weights associated with each link, i.e., closely associated nodes produce higher activation transfer as compared to weakly associated nodes. Reder and Anderson (1980) found that the amount of activation spreading from a given node along a pathway is a function of the strength of that pathway relative to the sum of strengths of all paths emanating from that node.

Priming tasks have provided sufficient empirical support to network models of memory (Ashcraft 1989). In priming tasks a prime stimulus, which is presented first, influences some later process on a target stimulus which follows the prime. For example, in a lexical decision task (a task in which subjects have to respond whether a string of letters form a regular word or not) it was found that subjects took less time to recognize the target 'butter' as a regular word when primed by the word 'bread' than the time they took to recognize 'butter' as a word when primed by the word 'doctor' (Meyer and Schvaneveldt 1971). The spreading activation explanation of this differential response speed is as follows. The prime stimulus 'bread' activates the node 'bread' in the subject's memory. As 'bread' and 'butter' are related concepts, the link associated with the two nodes of bread and butter have a relatively higher weight associated with it. The activation spreads from 'bread' towards 'butter'. When the subject is asked whether butter is an English word the decision is facilitated as the node 'butter' is already activated because of the spread of activation from the prime 'bread'. On the other hand, as doctor and butter are not related concepts, therefore, when doctor is used as prime, activation does not spread towards butter, and consequently the lexical decision is not facilitated.

An important concept in Anderson's model is the 'fan effect' which means that performance of subjects on various tasks (e.g., lexical decision tasks as explained above) will slow down on any fact if that fact is but one of many that have been learned about a particular concept. The rationale is as follows. Given a fixed level of activation for a node the more links it has, the less activation is available for any one link. For example, if the node 'bread' is only linked to node 'butter' then all of the available activation of 'bread', when it is primed, will go towards 'butter'. Thus, the lexical decision for butter will be facilitated. However, if 'bread' is connected to 'breakfast' as well as 'butter' and 'sandwich', then only one third of 'bread's' activation can reach 'butter' as the activation will spread in all three links. Consequently, the

lexical decision for butter will not be as facilitated as when only one link was present. In a consumer behavior context, Meyers-Levy (1989a) have shown that brand memory for high frequency brand names is adversely influenced if their association sets are large - a phenomenon similar to the fan effect.

The concept of spreading activation has been used to explain mechanisms involved in such tasks as category exemplar production (Loftus 1973), semantic priming in lexical decisions (Neely 1977), episodic sentence and word recognition (Anderson 1983), and reading comprehension (Stanovich and West 1983). It has been experimentally found that the spread of activation is automatic as opposed to being under strategic control when the time duration between the prime and the target is less than 250 milliseconds (Neely 1977). Conscious processes, however, may take over at longer durations (Posner and Snyder 1975). It has also been found that the activation spreads beyond directly related concepts, although this 'mediated priming' effect is only evidenced in a pronunciation task (Balota and Lorch 1986). Although not in the context of spreading activation, priming paradigm has also been used in the area of consumer behavior. Thus, Herr (1989), Meyers-Levy (1989b) and Yi (1990) have documented the impact of priming on consumer information processing and judgment. This study will, however, use priming in order to model similarity judgment tasks.

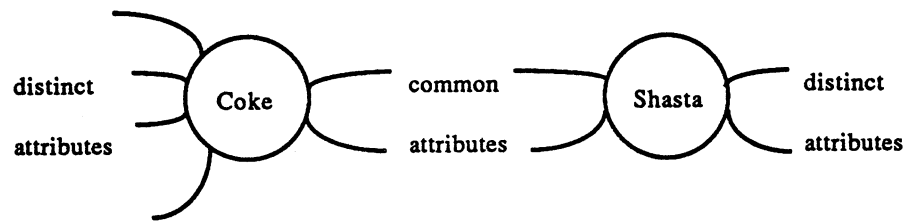
CONTRAST MODEL OF SIMILARITY JUDGMENT

The theoretical analysis of similarity relations in marketing has been dominated by geometric models in which products, or brands, are represented by points in some coordinate space where the metric distance between the points reflect the similarities between respective brands (Green and Rao 1972). One result of such a dimensional representation is that the similarity between brand 'a' and 'b' (or Euclidean distance between them) remains the same whether one measures similarity of 'a' to 'b' or of 'b' to 'a'. Tversky (1977) has, however, argued that the metric assumption that underlie the geometric approach to similarity are often found lacking. He has developed an alternative feature-based approach to the analysis of similarity relations. According to his 'contrast' model, each brand is characterized by a set of features or attributes. For example, coke has attributes of being a carbonated drink, a cola drink, among others. The observed similarity between two brands is expressed as a function of their common and distinctive attributes. Thus, if brand 'a' (e.g., coca-cola) has a set of attributes 'A' and brand 'b' (e.g., shasta cola) has a set of attributes 'B' then the similarity between them is expressed as:

$$S(a,b) = \theta f(A \cap B) - \alpha f(A - B) - \beta f(B - A)$$

The model allows for a variety of similarity relations over the same set of objects through its flexibility of designating different values for θ , α , β as well as different functions f . Thus, in contrast to the dimensional model, similarity of 'a' to 'b' can be

FIGURE 1
A Model of Memory Network



different from similarity of 'b' to 'a'. The factors that contribute to the salience of a stimulus, i.e., intensity, frequency, familiarity, good form, informational content, etc., are reflected by the scale 'f' in the contrast model. Variations in similarity judgments because of the 'task' or 'context' effects are captured by the parameters θ , α , and β .

Tversky and his colleagues have published a few papers lending support to the contrast model. For example, Tversky and Gati (1978) have used the contrast model to explain asymmetric similarity judgments. They have shown that subjects' judged similarity of North Korea to China exceeds their judged similarity of China to North Korea. In a consumption context, Johnson (1986) has found that consumers rated the similarity of shasta cola to coca cola to be higher than the similarity of coca cola to shasta cola. Thus, coke is not as similar to shasta as shasta is to coke. Tversky and Gati (1978) explain this asymmetry via a focusing hypothesis and a relative salience effect in their contrast model. The focusing hypothesis states that if $S(a,b)$ is interpreted as the degree to which 'a' (subject) is similar to 'b' (referent) then in such judgments attributes of 'a' are weighted more heavily than attributes of 'b' (i.e., $\alpha > \beta$). The salience effect follows from the contrast model. With $\alpha > \beta$,

$$S(a,b) > S(b,a) \quad \text{iff} \\ f(B-A) > f(A-B)$$

or when the distinctive attributes of 'b' are more salient than the distinctive attributes of 'a'.

While the explanation provided by Tversky and Gati (1978) is reasonable, however, it is not grounded in the memory network models. For example, how are 'subject' and 'referent' cognitively represented and how features or attributes are given more weight than less. In the following section a memory network model of asymmetric similarity judgment is presented.

A SPREADING ACTIVATION MODEL OF ASYMMETRIC SIMILARITY JUDGMENT

Assume that 'a' (e.g., coke) is a node in the semantic memory. This node is linked to many attributes like carbonated, refreshing, dark color, sweet taste, distinctive bottle, etc., (Gardener,

Mitchell and Russo 1978). If A is the set of these attributes of coke then node 'Coke' has A different links emanating from it. Similarly, node 'b' (e.g., shasta) has B different links emanating from it. Now some of the attributes ($A \cap B$) are common to coke and shasta (e.g., carbonated, dark color), while some attributes ($A - B$ or $B - A$) are distinct to either coke or shasta (e.g., distinctive bottle, world-wide sales). Thus, the network structure might be represented as in Figure 1.

The focusing hypothesis of Tversky and Gati (1978) is proposed to be captured by a priming effect. According to Tversky and Gati when coke is the subject and shasta the referent, then the attributes of coke are weighted more heavily than the attributes of shasta. However, they also suggest that human subjects have a propensity to use directional statements such as "x is like y" where the subject 'x' always comes before the referent 'y' in similarity statements. A case can be made that the subject 'x' is acting as a prime for the referent 'y'. Thus, in a similarity estimation of coke to shasta, it is proposed that coke acts as a prime for shasta. 'Coke' becomes a source of spreading activation which reaches 'Shasta' via the common attribute links.

The salience of a stimulus depends on factors which include intensity, familiarity, frequency, informational content among others (Tversky and Gati 1978). All of these factors may safely be assumed to give rise to two phenomenon. Firstly, they will increase the steady state level of activation of a node (Anderson 1983). Secondly, they will increase the number of links emanating from a node as well as their strengths (Collins and Loftus 1975). Thus in the previous diagram, coke is more salient than shasta (coke has more links than shasta). Because of the 'fan effect', however, 'Coke' will be able to spread a lesser amount of activation to 'Shasta' via the common links as compared to that sent by 'Shasta' to 'Coke', assuming that the two have an equal amount of steady state activation level.

The process of asymmetric similarity judgments between coke and shasta can now be grounded into a proposed semantic network model. When a subject is judging the degree to which shasta is similar to coke, node 'Shasta' becomes the focused unit. Activation spreads from 'Shasta' via the mediating common attributes to 'Coke' (Balota and Lorch 1986). The strength of activation reaching 'Coke' depends on the sum of weights of the common

links between 'Shasta' and 'Coke' relative to the weights of all links emanating from 'Shasta'. The speed with which the intersection of activations from 'Shasta' and 'Coke' takes place, and the information about the level of activation (which is available to the subject; Anderson 1983) guides the subject to decide on the similarity of shasta to coke. A similar process occurs when the subject is determining the degree to which coke is similar to shasta. If we assume that the steady state activation level of shasta and coke are the same and also that coke is more salient than shasta, then because of the fan effect less activation will reach shasta from coke, as coke has many more links which also have greater strength, while more activation will reach coke from shasta. Because of this difference in activation transfer, the speed with which a critical level of activation intersection is reached will be more in the case when shasta is the prime than when coke is the prime (Anderson 1983). The information of this level of activation at the intersection is proposed to result in a degree of similarity judgment. According to the 'semantic relatedness effect' those concepts that are highly interrelated can be judged more rapidly in a lexical task than those with lower degrees of relatedness (Ashcraft 1989). Thus, speed of spreading activation and relatedness (or similarity in this case) are related. The more the activation spreads, the sooner the intersection, and consequently the more similar the prime concept is to the target concept. Thus, shasta will be reported as more similar to coke than vice versa. This asymmetric similarity judgment is exactly the same as that obtained by Johnson (1986). However, the proposed model presented in this paper provides asymmetric similarity judgment a grounding in memory network models. Based on the above logic we would hypothesize the following:

A more salient brand within a product category, when used as a prime, will slow the lexical decision or pronunciation task for a less salient target brand within the same product category. Thus, the more salient brand will be judged as 'less' similar to less salient brand.

On the other hand, a less salient brand within a product category, when used as a prime, will facilitate the lexical decision or pronunciation task for a more salient target brand within the same product category. Thus, the less salient brand will be judged as 'more' similar to more salient brand.

CONCLUSIONS

A spreading activation model of consumer's asymmetric similarity judgment is proposed. The model, if validated by empirical data, could lead to many interesting implications in the area of consumer's memory of brands and choice process. Firstly, it directly impacts on the contents of a consumer's evoked set. It seems that because of differential activation capabilities of less salient and more salient brands the composition of evoked set will depend on the 'cue' brand. If the cue brand is less salient then the probability of recall of more salient

brand will be high and so will be its probability of being a member of the evoked set. On the other hand, if the cue brand is more salient then the probability of recall, and hence membership in evoked set, of a less salient brand will be low.

Secondly, if according to this model priming has an important role to play in similarity judgment then an area of automatic and controlled similarity judgment might evolve. Posner and Snyder (1975) had shown that automatic priming precedes controlled processes. Thus, one may argue that in a low involvement choice process, where controlled processes are not dominant, automatic activation of brands may determine the similarity judgments among brands. This similarity judgment will in turn influence the choice. On the other hand, in a high involvement choice process, where controlled processes dominate, the automatic activation of brands will not determine the similarity judgments among brands and, consequently, the choice may turn out to be very different. Finally, this automatic or controlled similarity judgment may also impact brand substitution and brand switching behavior.

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Schemata in Consumer Research: A Connectionist Approach

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ABSTRACT

Schemata and related knowledge structures have figured prominently in consumer research in recent years, yet little consideration has been given to the processes through which schemata are retrieved from memory. In cognitive psychology, schemata have typically been considered frameworks of knowledge that are stored in memory and retrieved through a process of spreading activation. From a connectionist perspective, however, schemata are not stored at all. Rather, they are re-created as individuals need them; schemata are simply patterns of activation across a network of units connected in a constraint satisfaction system. A connectionist model of schemata is presented and demonstrated in a consumer context.

INTRODUCTION

Considerable research and theory in consumer behavior has been based on the notions of categories or schemata possessed by consumers (e.g., Cohen and Basu 1987; John and Sujan 1990; Loken and Ward 1990; Meyers-Levy and Tybout 1989; Sujan and Bettman 1989; Sujan et al 1986). According to the standard theory in cognitive psychology, schemata are stored frameworks of knowledge about some object or topic and are represented by nodes in semantic memory. Schemata are retrieved into working memory through the process of spreading activation (Ashcraft 1989).

Many cognitive phenomena, including schema development and retrieval, have been addressed in recent years from a different perspective, alternatively referred to as connectionism, parallel distributed processing (PDP) models, or neural networks. Such approaches, which feature formal mathematical models of cognitive processes, have enjoyed increasing popularity (Hintzman 1990). In contrast to the standard theory, connectionist approaches to schemata assume that schemata are implicit and created at the time an individual needs them. In short, schemata are not "things" stored in memory; rather, they are simply patterns of activation across a vast network of units. The connectionist approach offers a conceptually distinct model of schemata that approximates the physiology of the brain while demonstrating many of the recognized properties of schemata.

In this paper, one particular connectionist model of schemata retrieval based on a constraint satisfaction system is presented and applied in a consumer context. Data were collected with respect to a given product class (automobiles) in order to demonstrate the model.

A CONNECTIONIST APPROACH TO SCHEMATA

In general, connectionist models "assume that information processing takes place through the interactions of a large number of simple processing elements called units, each sending excitatory and inhibitory signals to other units" (McClelland et al 1986, pg. 10). These models are distinguished from traditional theories of learning and memory in several important ways. In general, they are more closely tied to the physiology of the brain. The brain consists of a large number of interconnected elements which appear to send inhibitory or excitatory impulses to other elements; moreover, these elements appear to update their excitations on the basis of these simple impulses (McClelland et al 1986).

In connectionist models, storage in memory does not involve the actual storage of semantic or episodic information in the form of nodes. Instead, the connection strengths or weights between units are stored, allowing information to be re-created at the time an individual needs it. Most connectionist models of information processing do not require the presence of a superordinate control function for organizing and storing information or guiding retrieval. Rather, the system learns of its own accord the connection strengths between units through the repeated processing of stimuli over time. Importantly, multiple patterns may be represented by the same set of units since it is not the units themselves that are important, but rather the connection strengths, or weights, between units.

The particular connectionist model presented in this paper is a constraint satisfaction model. The operation of the constraint satisfaction network in re-creating a schema provides perhaps the greatest point of contrast with the standard theory of schema retrieval. In a spreading activation model, activation moves from one activated node to other related nodes via connecting pathways (with the nodes themselves representing semantic memory). As the activation spreads from node to node, the schema is retrieved. In a connectionist constraint satisfaction model, all units are connected to all other units, and an activated unit may inhibit some units while exciting others. All the units may thus play a role in determining the final pattern of activated units. Moreover, this final pattern of activation across units may not be accounted for by a spreading activation model because units that are activated at some point may be inhibited (and ultimately de-activated) by other units in the network as constraints are satisfied.

The units in a constraint satisfaction model may be thought of as hypotheses about the presence of certain features or attributes. In a consumer marketing context, consider the schemata that individuals hold with respect to different types of automobiles. One unit might represent a hypothesis about the presence of high status or prestige. (In reality, the highly abstract attributes used in this example are themselves

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likely to be patterns of activation across a great number of lower-level units.) This unit may be activated as part of a schema for certain types of automobiles (e.g., expensive sports cars), but not activated as part of a schema for other types (e.g., economy cars). The connection between two units represents a constraint between those units. If the units tend to co-occur (e.g., units representing high status and high price), then a positive weight is given to the connection between the units. If one unit tends to be activated while the other unit is not (e.g., units representing high status and vinyl seats) then a negative weight is "learned" by the system for the connection between the units. In some situations, there may be little regularity in the co-occurrence of units, leading to a connection weight approaching zero (e.g., units representing an airbag and leather interior).

By expanding the model to include multiple units, the workings of the constraint satisfaction network can be seen. Each unit receives excitatory inputs from units to which it is connected with positive connection weights, and inhibitory inputs from units to which it is connected with negative connection weights. The system will settle, or "relax", into a stable state where as many constraints as possible are satisfied, with priority given to those constraints (connections) weighted most heavily. In this model, the units that are activated in the stable state represent the relevant schema.

In addition to receiving inputs from other units, a unit may also receive input externally. This external input, or activation, represents external evidence that the feature represented by a unit is present, and may serve to set the system in motion. For example, the viewing of a print advertisement for the Ford Escort may be sufficient to re-create the full economy car schema for many individuals. In the following demonstration, it is assumed that the process of schema re-creation begins with an external stimulus.

Note also that some units have a higher likelihood of being activated because the feature represented by a unit occurs more frequently in the external environment. Similarly, some units are activated less frequently because the feature rarely occurs. Connectionist models of schemata normally introduce a bias into the model to account for this phenomenon. If a unit is usually activated, a positive bias is introduced; if a unit is not normally activated, a negative bias is introduced.

AN APPLICATION: A MODEL OF SCHEMATA FOR AUTOMOBILES

One application of schemata theory involves the features or attributes normally associated with a product. Meyers-Levy and Tybout (1989) identify a number of attributes of various beverages; Sujian (1985) considered the attributes associated with a 35mm camera. An automobile might also be represented by a group of attributes. Some attributes are concrete (e.g., power windows), while others are more abstract (e.g., high status). Table 1 presents a listing of 20 attributes that might be associated with

the automobile product category. These attributes were chosen for their diversity in concreteness/abstractness and for their ability to represent several types of automobiles. Note that some properties of automobiles (e.g., price) are shown as two attributes (e.g., high price, low price), since each unit in this simple constraint satisfaction network is binary (either on or off) and cannot represent multiple levels of continuous variables.

The Model

A connectionist approach to schema retrieval can be modeled mathematically. The model must update the activations on each of the 20 units in the system based on the inputs from other units, any external input, and the constant bias. Rumelhart et al (1986) provide the following model:

$$a_j(t+1) = a_j(t) + \begin{cases} \text{net}_j(1-a_j(t)) & \text{net}_j > 0 \\ \text{net}_j a_j(t) & \text{otherwise} \end{cases}$$

where $a_j(t)$ represents the activation of unit j at time t , an internal input is represented by setting $a_j(t)=1$, $\text{net}_j(t)$ represents the net input to unit j at time t , and

$$\text{net}_j(t) = e_j t + \sum_{i \neq j} w_{ji} a_i(t)$$

where $e_j(t)$ represents the bias, w_{ji} is the weight (constraint) on the connection from unit i to unit j , and $a_i(t)$ represents the activation of unit i at time t .

The system will reach a stable state with all units either turned on (a value of 1) or turned off (a value of 0). If the net input to a unit at time t exceeds 0, then the activation on that unit will be driven toward 1; otherwise, its activation will be driven toward 0. Note that this is an iterative model, and that only one unit may be updated at a time (although a truly parallel processing system would allow simultaneous updates). The model randomly chooses one unit at a time to update activation; this unit may not be selected again for updating until the remaining 19 items have been updated. Each cycle of updating all 20 units is considered one complete update.

Setting Connection Weights

The weights in the model represent the connection strengths between units. The weights will be positive when two units are mutually excitatory and negative when two units tend to inhibit each other. To obtain weights meeting these criteria, data were collected from 44 undergraduate students. Each subject completed a written questionnaire; all questionnaires were identical except for the order of the stimulus materials. Initially, subjects were presented with a list of the 20 attributes of automobiles shown in Table 1 and were instructed to indicate all attributes that applied to a general type of automobile. For example, approximately one-third of the subjects were told to consider a LUXURY SPORTS CAR and "to think of the typical automobile of this general type" and to complete the page by marking each attribute that they

"believe might in general apply to the automobile." Approximately one-third of the subjects began by considering the typical ECONOMY CAR, while the remainder initially considered the typical FAMILY CAR. When subjects had considered all 20 attributes for the first type of automobile, they repeated the process for the two remaining types of automobiles. Thus, each subject considered all three types of automobiles, for 132 total observations. The order of the presentation of the three types of automobiles was balanced to eliminate order effects.

Correlations were calculated across all observations for all pairs of attributes to obtain weights for use in the constraint satisfaction model. An attribute was coded "1" if a subject selected it; otherwise, the attribute was coded "0". Although the range of the correlations obtained using two dichotomous variables may be restricted, depending on the shapes of the distributions of the two variables (Nunnally 1978), the correlations obtained are useful measures of association. These correlations are shown in Table 1. For example, a leather interior is positively correlated with a high price ($r=0.77$); in the model, the unit representing leather interior is therefore connected to the unit representing high price by a connection weight of 0.77. Note that weights for four of the combinations (high price-low price; high status-low status; foreign-made-American-made; and, often needs repair-rarely needs repair) were set to -1.00.

Calculating Bias

In addition to the information used to estimate weights, subjects also provided information used to calculate the biases needed in the model. Subjects were asked to estimate for each attribute the percentage of cars that exhibit that attribute. These percentages are presented in Table 2, along with the biases for each attribute obtained by applying the following formula from Rumelhart et al (1986):

$$\text{bias}_j = -\ln \frac{p(x_i=0)}{p(x_i=1)}$$

Model Summary

Twenty attributes of automobiles were specified, each represented by a single unit; each unit represents the hypothesis that the feature is present and has value "1" when the model specifies that a feature should be present and value "0" when a feature should not be applicable. All units are connected to all other units and receive positive or negative impulses based on the connection weight and the current activation level of the impulse-sending unit. When the stable state is achieved, all units have activations of 0 or 1; the units that are activated represent the relevant schema.

A SCHEMA FOR HIGH STATUS AUTOMOBILES

Suppose that this system received strong external evidence that the hypothesis related to "high status" was correct, and that the activation on this unit

was accordingly set to 1 (and not allowed to change). How might the system respond? The unit that is activated begins to send positive impulses to those units with positive connection weights and inhibitory impulses to those with negative connection strengths. The system will ultimately settle into the best possible set of unit activations that it can achieve, given the constraints between units. This situation was modeled and is shown in Table 3. The entries in the table represent the activation levels of each unit at the conclusion of a complete update (e.g., the activation of the first unit, foreign-made, is equal to 0.25 once the model has completed the first update). Although the model required 105 updates to reach the stable state, only the first five and the last updates are shown. The model required updates 6-105 to bring the activation of unit 16 (advertised on national TV) to 0. This complete process was repeated 20 times to obtain a measure of the stability of the schema; this pattern was obtained 19 times. The schema for a high status automobile suggests an expensive, foreign-made automobile that might be special ordered from the factory, one that rarely needs repair, and has the following features: power windows, leather interior, and power steering. In addition, the automobile serves the basic purpose of providing transportation. This schema seems to reflect several of the attributes that might normally be associated with high status automobiles.

It is interesting to note the progression of the activity levels of individual units as the model proceeds through the update process. Some of the units (e.g., power steering and provides transportation) receive full activation on the first update while others (e.g., foreign-made and rarely needs repair) start slowly, building activation with each update. Many units which are initially off continue to remain off throughout the process. Other units receive some positive activation along the way but ultimately decrease to zero activation. The intermediate activations reflect the interactions among the units as they approach the stable state.

A SCHEMA FOR LOW STATUS AUTOMOBILES

It is interesting to next determine the resulting schema when unit 11 (low status) receives strong external stimulation. This external input was implemented and the model was allowed to run until a stable state was attained. Table 4 presents the ending activations for each of the six updates required to reach the stable state. The resulting pattern of activations was obtained each time that the simulation was run (20 times). A low status car might be described as an inexpensive American-made car with vinyl seats, a roomy interior, a small engine, and an AM radio; the car often needs repair (but parts are readily available). The car provides transportation and is advertised on national TV. It is interesting to note that this schema appears to be the "typical" automobile schema, since it represents the final stable state of the system when no strong external inputs are assumed (i.e., the system is allowed to run using the biases as the only inputs to

TABLE 2
Bias Estimation

Attribute	Mean % of Cars w/Attribute	Bias
(1) foreign-made	48.98	-0.04
(2) power windows	44.32	-0.23
(3) AM radio (only)	21.75	-1.28
(4) high status	30.41	-0.83
(5) small engine	50.89	-0.04
(6) high price	43.14	-0.28
(7) low price	42.16	-0.32
(8) roomy interior	44.70	-0.21
(9) provides transportation	93.93	2.74
(10) American-made	52.84	0.11
(11) low status	40.98	-0.36
(12) leather interior	23.07	-1.20
(13) power steering	70.50	0.87
(14) might be special ordered	34.59	-0.64
(15) air bag	23.00	-1.21
(16) advertised on national TV	66.32	0.68
(17) parts are readily available	66.43	0.68
(18) often needs repair	41.50	-0.34
(19) vinyl seats	48.02	-0.08
(20) rarely needs repair	35.70	-0.59

TABLE 3
Constraint Satisfaction Schema, Item 4 Activated

ACTIVATIONS

Units	Updates					
	1	2	3	4	5	105
(1) foreign-made	0.25	0.30	0.89	1.00	1.00	1.00**
(2) power windows	0.18	1.00	1.00	1.00	1.00	1.00**
(3) AM radio (only)	0.00	0.00	0.00	0.00	0.00	0.00
(4) high status	1.00	1.00	1.00	1.00	1.00	1.00**
(5) small engine	0.00	0.00	0.00	0.00	0.00	0.00
(6) high price	0.63	1.00	1.00	1.00	1.00	1.00**
(7) low price	0.00	0.00	0.00	0.00	0.00	0.00
(8) roomy interior	0.00	0.10	0.08	0.00	0.00	0.00
(9) provides transportation	1.00	1.00	1.00	1.00	1.00	1.00**
(10) American-made	0.00	0.00	0.00	0.00	0.00	0.00
(11) low status	0.00	0.00	0.00	0.00	0.00	0.00
(12) leather interior	0.00	0.12	1.00	1.00	1.00	1.00**
(13) power steering	1.00	1.00	1.00	1.00	1.00	1.00**
(14) might be special ordered	0.30	0.63	1.00	1.00	1.00	1.00**
(15) air bag	0.00	0.00	0.00	0.00	0.00	0.00
(16) advertised on national TV	0.70	0.83	0.88	0.88	0.84	0.00
(17) parts readily available	0.36	0.55	0.41	0.00	0.00	0.00
(18) often needs repair	0.00	0.00	0.00	0.00	0.00	0.00
(19) vinyl seats	0.00	0.00	0.00	0.00	0.00	0.00
(20) rarely needs repair	0.14	0.35	0.91	0.99	1.00	1.00**

Units that are activated in the stable state are designated **.

TABLE 4
 Constraint Satisfaction Schema, Item 11 Activated
 ACTIVATIONS

Units	Updates					
	1	2	3	4	5	6
(1) foreign-made	0.00	0.00	0.00	0.00	0.00	0.00
(2) power windows	0.00	0.00	0.00	0.00	0.00	0.00
(3) AM radio (only)	0.00	1.00	1.00	1.00	1.00	1.00**
(4) high status	0.00	0.00	0.00	0.00	0.00	0.00
(5) small engine	1.00	1.00	1.00	1.00	1.00	1.00**
(6) high price	0.00	0.00	0.00	0.00	0.00	0.00
(7) low price	0.73	1.00	1.00	1.00	1.00	1.00**
(8) roomy interior	0.06	0.71	0.91	0.97	0.99	1.00**
(9) provides transportation	1.00	1.00	1.00	1.00	1.00	1.00**
(10) American-made	1.00	1.00	1.00	1.00	1.00	1.00**
(11) low status	1.00	1.00	1.00	1.00	1.00	1.00**
(12) leather interior	0.00	0.00	0.00	0.00	0.00	0.00
(13) power steering	0.37	0.07	0.00	0.00	0.00	0.00
(14) might be special ordered	0.00	0.00	0.00	0.00	0.00	0.00
(15) air bag	0.00	0.00	0.00	0.00	0.00	0.00
(16) advertised on national TV	1.00	1.00	1.00	1.00	1.00	1.00**
(17) parts readily available	1.00	1.00	1.00	1.00	1.00	1.00**
(18) often needs repair	0.14	1.00	1.00	1.00	1.00	1.00**
(19) vinyl seats	1.00	1.00	1.00	1.00	1.00	1.00**
(20) rarely needs repair	0.00	0.00	0.00	0.00	0.00	0.00

Units that are activated in the stable state are designated **.

the system). The system was allowed to run 20 times with all initial activations set to zero; in 19 cases, this schema resulted.

OTHER EXAMPLES: COMBINATIONS OF EXTERNAL INPUTS

In many situations, it is likely that more than a single unit may receive strong external stimulation. Consider the situation in which the units representing "high status" and "American-made" both receive strong external evidence that the attributes exist. To demonstrate this situation, the activations on these units were set and held at 1; the model was then allowed to update in the normal way. The resulting schema was less stable than the earlier examples; two general schemata resulted. The first, which was produced on 11 of the 20 simulations, is shown in Table 5. The model took 16 iterations to reach the stable state. The resulting schema was of a high priced, high status, American-made automobile with features in accordance with its status and price. On 9 of the 20 simulations, the model produced a less grand schema: the automobile provides transportation, has a roomy interior, vinyl seats, power steering, an airbag has readily available parts, and is advertised on television.

DISCUSSION

Following Rumelhart et al (1987), several important properties of schemata are easily addressed within the connectionist approach. Several of the

properties relevant to consumer research are broadly considered in this section.

(1) *Patterns tend to complete themselves.* In order to retrieve a schema, it clearly is not necessary to receive external input for all units. As demonstrated, the interconnected system of constraints serves to activate those units, or attributes, that fit the schema. For example, when a "high status" automobile was indicated, the model settled into a solution with attributes that look very much like those appropriate for a high status automobile.

As another example, Sujana et al (1986) found that the stimulus of a salesperson was sufficient for people to bring up the clothing store salesperson schema. It was not necessary to get external input on such units as "...will tell me I look good in anything I've chosen to try on" or "...is probably selling on commission". Rather, the system settled into a solution in which these or other appropriate units were activated.

Much of the rationale behind brand extensions relies upon this principle. By attaching a well-known brand name to a new product, the marketer assumes that many of the units normally activated in the consumer's schema for the brand name will also be learned by the system in association with the new product. In this way, consumers may attach many associations to the new product as a result of the brand schema, without an extensive (and expensive) effort by the marketer to build the desired associations.

TABLE 5
 Constraint Satisfaction Schema, Items 4 and 10 Activated
 ACTIVATIONS

Units	Updates					
	1	2	3	4	5	16
(1) foreign-made	0.00	0.00	0.00	0.00	0.00	0.00
(2) power windows	0.65	0.85	1.00	1.00	1.00	1.00**
(3) AM radio (only)	0.00	0.00	0.00	0.00	0.00	0.00
(4) high status	1.00	1.00	1.00	1.00	1.00	1.00**
(5) small engine	0.00	0.00	0.00	0.00	0.00	0.00
(6) high price	0.50	0.87	0.97	1.00	1.00	1.00**
(7) low price	0.00	0.00	0.00	0.00	0.00	0.00
(8) roomy interior	0.27	0.88	1.00	1.00	1.00	1.00**
(9) provides transportation	1.00	1.00	1.00	1.00	1.00	1.00**
(10) American-made	1.00	1.00	1.00	1.00	1.00	1.00**
(11) low status	0.00	0.00	0.00	0.00	0.00	0.00
(12) leather interior	0.00	0.00	0.00	0.20	0.43	1.00**
(13) power steering	1.00	1.00	1.00	1.00	1.00	1.00**
(14) might be special ordered	0.34	0.54	0.84	0.98	1.00	1.00**
(15) air bag	0.00	0.59	0.90	0.98	1.00	1.00**
(16) advertised on national TV	0.97	1.00	1.00	1.00	1.00	1.00**
(17) parts readily available	0.83	0.99	1.00	1.00	1.00	1.00**
(18) often needs repair	0.00	0.00	0.00	0.00	0.00	0.00
(19) vinyl seats	0.00	0.00	0.00	0.00	0.00	0.00
(20) rarely needs repair	0.00	0.15	0.52	0.77	0.90	1.00**

Units that are activated in the stable state are designated **.

They result simply through the process of re-creating the schema for the brand.

(2) *Knowledge at all levels can be represented in schemata.* In the automobile example, some of the attributes were very concrete, while others were very abstract, yet the model adequately represents all levels of abstraction. Consumers can thus be expected to incorporate higher level abstraction into their schema for a certain product. The image of a brand may often be represented in the brand schema along with more tangible elements of the physical product. For example, abstract advertising for Obsession perfume has been used to convey an image of the product.

(3) *Schemata are active processes, not static patterns stored in memory.* In this perspective, schemata are not stored at all; rather, the connection strengths between units representing hypotheses about features or attributes are retained. Over time, through the processing of schema-related information, the connection strengths may be altered. Advertising and promotion may serve to adjust some of the connection strengths between units. Advertising for a new product may be thought of as an attempt to increase the connection weights between a unit representing the product and units that tend to form a schema of products to consider for purchase (i.e., the consideration set). Similarly, connectionism provides an alternate explanation of the process through which a product is assimilated into an existing product class than does the schema-plus-tag explanation offered by Sujan and Bettman (1989).

One intriguing potential use for a connectionist model of schemata is the identification of specific schema elements or units to serve as the foci for advertising efforts. Suppose that a company offers a brand that is currently viewed as having low status and that the company desires to change this perception. With knowledge of the various weights between units in the system, it may be possible to identify a specific unit or attribute that, when activated, consistently activates the high status unit in the stable state. An advertiser could then focus communication efforts on this attribute. If the attribute does not currently exist for the brand, it may be added. It is possible that the addition of an inexpensive attribute might lead to dramatic changes in consumer perceptions of the product.

(4) *Some schemata are more rigid than others.* The units of some schemata seem to be much more tightly connected than those of other schemata. For example, the general schema for high status automobiles shown in Table 3 seems to be much more stable than does the schema for high status, American-made automobiles shown in Table 5. The high status schema is clearly defined, having resulted 19 out of 20 times it was modeled. However, individuals appear to hold a less clear schema for high status American cars since this particular schema is produced only about half the time.

The schemata formed for certain products (where the schemata might describe the attributes of the products at a basic level, or the positioning of the products at a higher level of abstraction) seem to be

very tight and rigid, while schemata for other products are much less so. For instance, consider the schemata formed for IBM personnel computers in comparison with schemata for Zenith computers. It is likely that the position of the IBM product is very clear and tightly formed, while that of the Zenith product is less rigid. One implication is that tight schemata might be more difficult to combat (from a competitive strategy perspective) or change in consumers' minds. This implication can be investigated from a connectionist perspective.

With this advantage for the company or brand with the strongest position, however, comes the possible disadvantage of inflexibility. For example, Coca-Cola's ill-fated attempt to change the product formula may have failed to a large extent because individuals held a clear conceptualization of what the product was "supposed" to be. New Coke may have simply been too great a departure from the tightly-held schema for the product.

CONCLUSION

A constraint satisfaction model of schemata based on connectionism has much to offer consumer research as a theoretical underpinning for research on schemata. In this paper, a brief overview of such a model has been presented and demonstrated. The results indicate that the model seems to capture the nature of consumer schemata for automobiles.

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Priming and Implicit Memory: A Review and a Synthesis Relevant for Consumer Behavior.

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ABSTRACT

The idea of implicit memory have recently seen a resurgence of interest in the memory and cognition literature. A major issue is that of dissociations or independence between explicit and implicit memory systems. An ongoing and unresolved debate is how to reconcile the data with various theoretical frameworks. The findings and issues from the psychological literature are briefly discussed followed by some of these issues which could have relevance for consumer behavior.

INTRODUCTION

Schacter (1987) and Tulving and Schacter (1990) posit that there is now increasing evidence of yet another category of learning and memory which cannot be classified as belonging to any of the existing memory structures. This type of memory has been labeled as "implicit memory" (Graf and Schacter, 1985, 1987;). Consumer researchers should be aware of the progress and problems faced in this area as it might provide some insights into consumer decision making. The Wall Street Journal (McCarthy, pp B3; March 22, 1991) in a special report have also raised this issue and the subject may become increasingly important for advertisers and practitioners.

Implicit memory is revealed when previous experiences facilitate performance on a task that does not require conscious or intentional recollection of those experiences. This is to be distinguished from "explicit memory" which refers to conscious recollection of recently presented information found in traditional test of free recall, cued recall and recognition. A key issue in this area is that implicit and explicit forms of memory can be quite independent of each other (Graf and Schacter, 1985; Schacter, 1987) which is referred to as dissociation. In other words, implicit memory appears to be less affected by the kinds of interference manipulations that reduce retention in explicit tasks (Jacoby, 1983a; Graf and Schacter, 1985).

In this article I review some key aspects of implicit memory relevant to consumer behavior and discuss some possible areas of research.

IMPLICIT MEMORY AND PRIMING

Definitional and procedural aspects of Priming

The operative word "priming" has been used in various fields and sub-fields of psychology. Priming refers to the process by which previous experience increases the general accessibility of a conceptual category, thereby increasing the likelihood of that category being used to encode new information (Fiske and Taylor 1990). In social cognition, priming has been mostly exhibited with the usage of trait terms. Thus exposing people to positive or negative trait

terms (e.g., reckless versus adventurous) causes people soon afterwards to interpret ambiguous behavior (e.g., shooting rapids in a canoe) as correspondingly positive or negative depending on the trait being primed and its corresponding meaning (Higgins, Rholes and Jones, 1977; Bargh and Pietromonaco, 1982; Srull and Wyer, 1979, 1980).

Graf and Schacter (1985) introduced the concept of implicit versus explicit memory, which was more of a descriptive as opposed to a process distinction. They stated that "implicit memory is revealed when performance on a task is facilitated in the absence of conscious recollection; explicit memory is revealed when performance on a task requires conscious recollection of previous experiences". Thus performance on implicit memory measures is revealed only when priming occurs. It should be clarified here that priming does not always imply the operation of the hypothetical implicit memory system. Priming being an activation process can also underlie explicit memory (Ratcliff and McKoon 1988). In some of the literature however (Schacter, Delaney and Merikle, 1990) the term "priming" has been used interchangeably with implicit memory and is therefore a source of considerable confusion.

Priming experiments whether from social cognition or repetition priming typically consists of two (or three) stages with exposure to the prime (positive or negative trait terms; e.g., adventurous versus reckless) followed by the target stimulus in a seemingly unrelated context (reading about the un/ambiguous behavior of the targeted individual ; e.g., shooting rapids) An evaluative test of the individual (positive/negative) is thereafter taken to determine the extent of the priming effect (Higgins, Rholes and Jones, 1977). Caution is usually exercised in separating out the prime from the target with some intervening distractor task so as to ensure that subjects are unaware of the prime (Bargh and Pietromonaco, 1982).

The task flow in other priming studies is the same although researchers in this area combine the target stimulus and rating stages into two stages; study and test (Tulving and Schacter, 1990). In the first stage - the study phase, the subject is presented with a stimulus object. This stimulus object may comprise words (semantic and verbal) or line drawings of object, drawings of faces and so forth. In the second (test) stage which follows the first after an interval of maybe a few seconds to days or weeks, the subject is given reduced perceptual information about the object and asked to name or categorize it. These reduced cues may consist of initial letters or fragments of words, incomplete words or figures, originally presented faces in a more schematized form or tachistoscopic presentation of stimuli. Direct priming is a situation when the cues are the same as the stimulus. Priming is said to have been displayed if the probability of the identification of the previously encountered stimulus

object is increased. It is also evidenced if the latency measures for nonstudied control items. A magnitude of the priming effect is provided by the difference between performance on the target items and the nonstudied items.

Definitional aspects of Implicit Memory

Implicit memory should be defined (to avoid any ambiguity) in terms of unintentional or involuntary retrieval processes and the concept is restricted to those cases in which it is possible to demonstrate that test performance is facilitated by information acquired during a study episode without any recollective re-experiencing or awareness of remembering on the subject's part (Schacter, Bowers, and Booker; 1989). It should also be demonstrated that explicit memory performance is at or near chance levels, which in turn would imply that priming effects do not involve awareness of the study episode. This is discussed later under the "retrieval intentionality criterion".

The explicit/implicit memory distinction that Schacter and his colleagues have made is a widely used taxonomy. The above definition of implicit memory therefore can refer to two classes of phenomena (Dunn and Kirsner, 1989). The first consists of observable properties of the experimental situation, such as prior presentation of stimulus material, facilitation in performance and the nature of instructions viz., task characteristics. The second consists of unobservable mental events, such as conscious recollection which accompany the different forms of memory - a process perspective. It is possible therefore to distinguish between explicit and implicit memory tasks on one hand and processes on the other hand, although it is not clear whether the task distinction maps in any direct way onto the process distinction. A necessary assumption (the transparency assumption, Dunn and Kirsner, 1989) made in the literature in order to support "dissociation" effects is that there is a one to one mapping from task to process.

To mitigate the likely problems arising from this transparency assumption, Johnson and Hasher (1987) and Richardson-Klavehn and Bjork (1988) have used the terms direct and indirect tests to characterize the two classes of memory measures. Direct memory tests (recall, recognition) make reference to a target event and success is achieved when the respondent/subject gives behavioral evidence of knowledge concerning that event. Indirect tests require the subjects to engage in some form of cognitive or motor activity with no reference being made to prior events. The measures of interest in this case are shown to be facilitated in terms of task performance by relevant prior experience *even though no explicit reference was made to them*.

Richardson-Klavehn and Bjork (1988) have argued that there are a few major negative consequences of using the explicit/implicit memory distinctions to refer to both tasks and forms of memory. They use the terms direct/indirect to refer to tasks and methods of measurement. In the literature the terms implicit and explicit memory has been used interchangeably to refer to tasks and methods of

measurement or also to indicate hypothetical forms of memory - a term descriptive of mental content. Implicit memory can be a task-based definition (Schacter 1985) and it can also be inferred from dissociation between two measures of memory (Graf and Schacter, 1985). Similarly direct memory tests which have been defined as "conscious recollection" (Graf and Schacter, 1985) or "conscious awareness" (Roediger and Blaxton, 1987a, p 351) imply that in the test stage, awareness is based on task instructions and consequent intention to retrieve material from the study episode. This is a task based definition while subjective awareness is again a case of reexperiencing the episode, the existence of which is inferred from the data.

An assumption is usually made in the literature that a particular method of testing reveals only one underlying form of memory and therefore different methods of testing would indicate evidence of different forms of memory (Graf and Schacter, 1987). Different testing methods reveal different forms of memory *only* when dissociations between those methods of measurement are observed. Direct and indirect measures are sometimes influenced similarly by certain variables (Richardson-Klavehn and Bjork; 1988). In this case we do not know whether two different forms of memory are being affected or whether the same form of memory is being engaged by both types of tasks.

In the earlier definition of implicit memory given by Schacter and his colleagues, implicit memory is inferred from dissociation between explicit and implicit forms of memory. Thus if intentional retrieval is equated with explicit memory then this would rule out cases when subjects might become aware of a prior event without attempting to do so - a situation of involuntary explicit memory. Some untenable assumptions are necessary about the mental states or processes which ignores the complexity of such processes.

It is therefore suggested that the terms direct and indirect be used to distinguish memory tests which would be based on instructions and methods of measurement. This would make minimal a priori assumptions concerning the mental states and processes involved in performing the tasks. The terms explicit and implicit memory should be therefore used to refer to the effects of an episode that are expressed without awareness of remembering, and with awareness of remembering, respectively (Richardson-Klavehn and Bjork; 1988). An useful taxonomy adapted from Richardson-Klavehn and Bjork (1988) for only normal subjects is given below:

Schacter, Bowers, and Booker (1989) advise in using the retrieval intentionality criterion (RIC) to provide a non-circular, empirical testable way of distinguishing between explicit and implicit tests. This criterion consists of three key components: (1) the same nominal cues should be presented to subjects on implicit and explicit tests.; (2) only the implicit/explicit nature of test instructions should be varied, and (3) an experimental or subject variable should be identified that produces dissociations between implicit and explicit task performance. When

TABLE 1
Frequency with which a given form of memory contributes to performance in direct and indirect test

Type of test	Form of Memory		
	Explicit: Intentional	Explicit Involuntary	Implicit
Direct	Always	Occasionally	Sometimes
Indirect	Sometimes	Sometimes	Usually

an implicit/explicit dissociation is observed under these conditions, then only can the possibility that subjects use explicit strategies on the implicit test be ruled out.

It is suggested that the framework provided by Richardson-Klavehn and Bjork (1988) with regard to direct and indirect tests and the retrieval intentionality criterion (RIC) be used in future research. The above frameworks does not appear to have been used in consumer research and is a fruitful area of inquiry. As a starting point it can be useful to determine, using the RIC, whether the construct of implicit memory using the implicit memory measures can be replicated in the consumer research context. Nedungadi (1990) has used word completion - an implicit memory measure in one of his studies.

THEORETICAL ACCOUNTS:

In the social cognition literature the theoretical background assumed is mostly activation theory (detailed below) and the studies are at a more molar level without any debate regarding the appropriate memory system being used. There is however considerable turmoil regarding this issue in direct priming (see below) and the issue is analyzed at a more molecular level with no discernible agreement in the research community as to the appropriate theoretical (memory) framework.

Multiple Memory Systems View

Schacter (1987) has forwarded three main classes of theory to explain the distinction between explicit and implicit memory systems. The first of these is called the *multiple memory systems view*, and its major support arises from the observed independence or dissociation between explicit and implicit memory systems (Schacter, 1987)

These dissociations as Schacter (1987) Tulving and Schacter (1990) argue lead to the possibility of a single perceptual representation (PRS) which may exist separately from other memory systems and suggest that implicit and explicit memory performance are reflections of the operation of separate subsystems in memory.

These separate subsystems are characterized by different rules and operations and different candidate subsystems have been proposed as underlying the distinction (Squire; 1986). Squire and Cohen (1984) have argued that conscious or explicit recall is a

property of and supported by a *declarative memory system* that is involved in the formation of new representations of data structures. Implicit memory such as learning of skills and repetition priming effects are attributed to a *procedural system of memory* characterized by online modification of procedures or processing operations.

The distinction between episodic and semantic memory has also been invoked to account for this dissociation, (Tulving, 1972, Cermak et al., 1985; Kinsbourne and Wood, 1975; Parkin, 1982; Tulving and Schacter, 1982; Tulving, 1983). The episodic memory system is viewed as the basis for explicit recollection of specific events, whereas semantic memory is seen as responsible for performance on tasks such as word completion, lexical decision, and word identification which require subjects to make use of pre-existing knowledge of words and concepts. Other multiple memory systems have also been proposed to account for the observed data with regard to explicit and implicit memory systems (Johnson, 1985; Schacter and Moscovitch, 1984; Warrington and Weiskrantz, 1978).

Another related issue is that of the strong view versus the weaker account (Sherry and Schacter, 1987; Parkin, 1989). A strong view would argue that these systems are completely independent of each other and the operation of one exerts no influence on the operation of the other. A weaker account proposes that different systems exist but their outputs can influence the performance of each other. The results and arguments forwarded by Parkin (1989), Schacter, Delaney and Merikle (1990) favors the weaker version of a multiple memory system.

If performance on implicit priming tests is mediated by a single memory system then stochastic dependence between two implicit tests should be found. However results by Witherspoon and Moscovitch (1989) show stochastic independence between word-fragment completion and perceptual identification. These results are not consistent with the multiple memory systems view and one interpretation is to argue that the the degree of dependence between performances on direct or indirect memory tests is determined by the similarity (or dissimilarity) of information usage and of the different parts or component processes that the tests use.

Processing View

A second theoretical account is proposed by the *processing view* in which the interaction between encoding and retrieval is the focus (Jacoby, 1983; Roediger and Blaxton, 1987a, Hunt and Toth, 1990). This relies on the distinction between conceptually-driven (top-down) and data driven (bottom-up) processing. Conceptually driven processes reflect subject-initiated activities such as elaborating, organizing and reconstructing; data-driven processes are initiated by the information or data that is presented in test materials. The major argument is that information encoded via one of these general types of processes is best retrieved using the same or similar process. Thus most explicit tests emphasize concept-driven processing while most implicit tests draw on data-driven processing and performance dissociations between implicit and explicit tests are attributed to differences between conceptually driven and data driven processes. Hunt and Toth (1990) have reported some limitations in using this framework with regard to the effect of orthographic distinctiveness of words.

Activation View

The third class of theories are those espousing the *activation view*. Activation holds that priming effects on implicit memory are attributable to the temporary activation of preexisting representations, knowledge structures or logogens (Graf and Mandler, 1984; Morton, 1979). This activation is automatic and decontextualized and is not affected by any ongoing elaborative processing. An activated representation readily pops into mind on an implicit memory test but since it is decontextualized, does not contribute to explicit remembering of the episode. Priming studies in the social cognition area mostly use this class of theoretical framework (Fiske and Taylor, 1990).

As Schacter's (1987) review suggest, none of the three existing theoretical approaches can accommodate all of the available data. Another perspective suggests whether the current theoretical debate with regard to implicit memory is a spurious debate in the sense that the problem is impossible to solve (Snodgrass, 1989; Lockhart, 1989).

FINDINGS IN " PRIMING AND IMPLICIT MEMORY" RELEVANT FOR CONSUMER BEHAVIOR

In the next few pages I will make an attempt to briefly present what I feel are some of the relevant findings in priming and implicit memory that may be of some importance in studying consumer behavior.

Factors from studies in social cognition known to affect priming

Several factors in social cognition have been found to influence the accessibility of using a primed trait. In other words the effects of priming on dimensions descriptively or evaluatively related to the primed trait are increased (or assimilated) by: (a) increasing the number of trait-relevant items used during the priming task (Srull and Wyer, 1979; 1980); (b) decreasing the time interval between the priming

task and the presentation of information about the target character (Srull and Wyer, 1979,1980); (c) increasing time interval between the target character's information (behaviors) and the judgment (Srull and Wyer, 1980); (d) increasing the ambiguity of the target character's behavior (Srull and Wyer, 1979); (e) increasing expectations that category-relevant events will occur (Higgins, Kuiper and Olson, 1980); (f) increasing frequency of activation of the category (Wyer and Srull, 1980) and (g) increasing the strength of semantic relationships between the category and other activated concepts (Collins and Loftus, 1975; Warren 1972).

In the above it can be observed that the activation view of memory systems is used as a theoretical background. Consumer researchers have used some of the above factors in several studies eg., time interval effects (Wyer and Hong, 1990), ambiguity of the target's attributes (Herr, 1988).

Dissociations between implicit and explicit memory:

As stated earlier dissociation in performance on the two types of memory tests (explicit or implicit) has sparked significant research interest in implicit memory. An useful framework to review these dissociations is to think of them as arising from "subject variables" or "experimental variables". With respect to "subject variables" the two factors that have shown robust dissociations are (1) performances by amnesics on implicit memory as compared to recall and recognition measures and (2) age effects also called developmental effects. Many experimental variables also produce dissociations but the more important ones are retention interval, semantic encoding or the level of processing, and modality shifts between study and test. Other relevant factors of interest to consumer research including semantic priming and the specificity of priming effects, will be also briefly discussed.

Developmental Effects

Though recognition memory increases with age, priming effects can be as large as in 3-year olds as in college students (Gollin, 1962; 1966) Similarly elderly subjects have difficulty with recall and recognition, but their priming effects are indistinguishable from that of young adults (Caroll, Byrne and Kirsner, 1985; Mitchell, 1989).

Priming effects of nonverbal information are reasonably robust across age groups (Mitchell, 1989). Mitchell (1989), observed a robust facilitation of naming latency (as compared to explicit memory tests) in young and old subjects at different intervals between presentation of the prime and the target stimulus. Similarly Light and Singh (1987) have also found that although young subjects had a differential advantage over older subjects on recall and recognition, the two age groups performed equivalently on word completion and recognition. Studies by Gollin (1960, 1962), Parkin and Streete (1988), Caroll, Byrne and Kirsner (1985) all point to strong priming effects regardless of age of the subjects.

The robust priming effects across age groups has implications in terms of research of advertising and brand name effects on children and the elderly. The elderly consumer may have weak recall or recognition of ad message or contents but may be primed with the brand name or other memory based cues so as to influence judgment and choice.

Effects of retention interval:

Retention interval indicates the time interval between study and test or also between test and taking the final rating. Forgetting on implicit memory tasks is slower than forgetting on explicit memory tasks and the duration of priming effects in implicit memory can be as long as one year (Mitchell and Brown, 1988; Tulving, Schacter and Stark, 1982). Priming effects on implicit memory tests have been found to be greater for subjects who experienced a delay between the stimulus and the rating than other subjects who experienced a delay between the priming and the stimulus paragraph (Srull and Wyer 1980). It is therefore important that the prime and target stimulus occur in close temporal contiguity, as the effect depends on the target stimulus being encoded in terms of the prime. Implicit memory test performance have been found to decrease with wider gaps between a prime (study) and stimulus (test) (Fiske and Taylor, 1990). The wider gap possibly interferes with the process of encoding the stimulus in terms of the prime.

Priming effects have also been found to actually increase with greater time intervals between the target stimulus (test) and the rating, holding the time interval between the prime (study) and the stimulus (target) constant (Fiske and Taylor, 1990). Once a stimulus has been encoded in terms of the prime, then the longer it sits in memory linked to that particular prime, the stronger the prime's effects. This evidence suggests an encoding explanation for priming because the delayed rating must be less dependent on ability to use the initial prime itself as retrieval cue, since retrieval of the prime becomes more difficult over time. As the effect increases with time, it suggests that the details of the original stimulus are lost and the primed representation becomes relatively important.

Results by Musen and Triesman (1990) suggest that a single exposure to novel, nonverbal stimuli was sufficient to establish a long duration of perceptual priming as compared to recognition memory loss over the same time period.

Level of processing:

Level of processing (LOP) or semantic processing produces better recognition and recall (Craik and Lockhart, 1972; Craik and Tulving, 1975) but does not seem to affect implicit memory performance (Jacoby and Dallas, 1981). In Jacoby and Dallas (1981) manipulating the LOP of study words had no affect on repetition priming in perceptual identification (implicit memory test) but semantically processed words yielded superior performance on recall and recognition than phonemically or orthographically processed words. Null effects of

study LOP on repetition priming have been also found for word completion (Graf and Mandler 1984) lexical decision (Kirsner, Milech and Standen, 1983, Expts 2 and 3) picture naming latency (Caroll, Byrne and Kirsner; 1985, Expts 1-3) and perceptual identification of pictures (Caroll, Byrne and Kirsner; 1985, Expt 4). In all these studies, explicit memory tests showed a large LOP effect for the same study and test stimuli. Jacoby (1983) has shown that while generation (high LOP) produced better recognition memory than a reading task (low LOP), there were opposite effects in perceptual identification (implicit memory task) i.e., read tasks produced better performance than generate.

The LOP variable has been used in consumer research (Bettman and Sujun, 1987) but LOP variable effects on implicit memory tests have not to the knowledge of the author been used in consumer behavior.

Modality Effects

Under the processing view (Jacoby, 1983; Roediger, Weldon and Challis, 1989; Roediger and Blaxton, 1987, a,b), explicit tests emphasize elaborated, semantic information in memory and therefore are not sensitive to modality (visual versus auditory) differences. Most implicit tests being data driven, are quite sensitive to the modality match between study and test (Graf, Shimamura and Squire, 1985; Kirsner, Milech and Standen, 1983). The above is an issue of modality sensitivity across explicit and implicit memories.

A related issue is that of priming across modality within the same implicit test. Thus Jacoby and Dallas (1981) had subjects study words either visually or auditorily and then try to identify visually degraded words. There was substantial priming effects on the visual implicit test for visually studied words but not for auditorily studied words.

Winnick and Daniel (1970) found that recall was higher following study of a picture than study of the corresponding word, but priming effects on the word-identification test were greater following study of the word than study of the picture (see also Weldon and Roediger; 1987). This was further corroborated in lexical decision making (Scarborough et al. 1979) and fragment completion (Ellis and Collins, 1983). The more common pattern is to observe a gradient of priming - more priming within modality (A-A or V-V) than across modality (A-V, V-A), but significant priming even across modality (Bassili, Smith and MacLeod, 1989). This pattern also appears in word fragment completion (Roediger and Blaxton, 1987, a,b), word identification (Kirsner et al., 1983; Postman and Rosenzweig, 1956) and lexical decision (Kirsner and Smith, 1974; Kirsner et al., 1983).

Despite some inconsistencies and variabilities in the results it can be concluded that there is generally less priming from pictures to words and words to pictures than from words to words or pictures to pictures. In other words priming is reduced in intermodal conditions as compared to intramodal conditions. This also indicates that the physical form of a stimulus plays a large role in priming and is

consistent with the data processing point of view. The finding that studying familiar pictures enhances recall and recognition while producing little or no priming effects on word identification, fragment completion and lexical decision tasks, (Graf et al., 1985; Kirsner et al 1983) also indicates that form based information plays a different role in priming as compared to explicit memory. This is also consistent with the idea that most explicit tests are largely conceptually driven. The importance of form information of a stimulus is observed only for repetition or direct priming. In semantic priming or associative priming there is evidence of extensive and even complete transfer between pictures and words. (Vanderwart, 1984).

Semantic Priming and Brand Names

In a typical semantic priming experiment, the subjects perform a "lexical decision" task, in which words must be discriminated from nonword letter strings. Nonwords conform to the orthographic (spelling systems) rules of the language and therefore a subject has to semantically encode the word before being able to decide that it is a word. The speed and accuracy with which subjects classify words is taken as a measure of the efficiency of a semantic coding of the word. If a word is preceded by a semantically related cue (word or sentence), lexical decision for words proceeds more efficiently (Fischler, 1981; Meyer and Schanveldt, 1971, Morton, 1969; Neely, 1977).

Brand names provide labels by which firms identify and promote their products and services. The effect of a brand is of course not merely in the name but represents the rich configurations of symbols and meanings that are embodied by products (Levy, 1978). Brand names can be either everyday words used in the language (Tide, Dial, ...) invested with product attributes or they can also be constructed words (Sentra, Compaq, Accord) which are not in the normal lexicon of words. The multiple meaning of everyday words being used as brand names can be understood in terms of the literature on word meanings (imagery, vividness, meaningfulness, concreteness-abstractness, (Taylor, 1976) association set size, (Meyers-Levy, 1989), functional or usage based vs concept or symbolic (Park, Lawson and Milberg, 1989)).

A relevant question is at what stage does a constructed word become part of the mental lexicon of consumers and what role would priming play in understanding this transition. A constructed brand name entering the mental lexicon of consumers is of course a function of the firm's marketing investment and strategic acumen. An interesting question is whether multiple lexical representations exist for several meanings of a brand name - normal or constructed, only some of which are activated when a stimulus is presented. Morton's (1970) "logogen model" which explicitly defines a "logogen" as representing a meaning as opposed to a mere spelling pattern is an example of a useful framework for studying common words being used as brand names.

There are two findings that are often cited as evidence for support of the activation theory with regard to repetition priming for nonwords and therefore could be used for understanding brand name (constructed) priming effects. First repetition priming in amnesic patients is only short-lived (Graf, Squire and Mandler, 1984; Squire, Shimamura and Graf, 1987) and secondly amnesic patients do not show repetition priming for non-words. The first finding is consistent with the idea of an independent decay implied by the concept of activation and the second can be predicted from the notion that repetition priming should be found only with stimulus materials that have pre-existing internal representations.

This activation account is however inconsistent with the current debate in implicit memory research where there is evidence about the formation of implicit new associations which can be acquired, used or retrieved implicitly (Graf and Schacter's; 1985, 1987). If something has no prior representation in memory - such as the association between two unrelated items - and can be learned implicitly, it is obvious that the activation account cannot be sustained. Hayes and Broadbent (1988) suggest that even complex cognitive skills can be acquired through an implicit mode of learning. Lewandowsky, Kirsner and Bainbridge (1989) have suggested a sense-activation view to reflect implicit memory for new associations. Their data suggest that it is the re-instatement at the rating stage (after target stimulus or at the test stage) of the encoded *sense* of the word rather than the use of a new association between the cue (or context) and target that gives rise to implicit new associations.

Specificity of priming effects

The specificity of priming effects is an interesting issue worthy of future research. Is the phenomenon of priming based on the activation of some generic or abstract code that represents the target object's prototypical features or does priming reflect certain specific characteristics of the object encoded by subjects during exposure to the priming stimulus. Gollin (1960) found evidence that initial "training" on a fragmented version of a picture produced greater subsequent priming effects in identifying that fragment than initial training by exposure to the entire picture. Further Snodgrass and Feenan (1989, as cited by Schacter, Delaney and Merikle, 1990) have also shown that priming is greater when the same picture fragment is presented for identification during the study and test periods than when different fragments are presented. These results suggest that priming is based in part on a representation of the specific characteristics of objects presented for study and does not seem to rely on an abstract, generic code. However explicit memory processes may have played some role in these observed specificity effects. Warren and Morton's (1982) study suggests that priming may be based on the activation of a more abstract object representation and the contribution of explicit memory processes needs further scrutiny. Herr (1989) in a consumer research setting has also found evidence that the effect of priming seems to be

highly specific to the category primed. In his study only judgements of price were influenced by priming, while other evaluative measures taken at the same time on quality, reliability, and prestige were not influenced by the activated category of price.

The reason for this specificity is not exactly known but it may be found in a categorization theory explanation of the priming effect. This assumes also an activation view. Priming effects are mostly obtained at the same category level as the category primed. If priming takes place with the priming stimulus at a "prototypical features" level then the priming effects are unlikely to be specific but more abstract and generic. Another related issue worth exploring is the contribution of explicit memory processes to priming and how it relates to observed specificity effects (Warren and Morton, 1982; Jacoby, Baker and Brooks (1989).

MEASURES OF IMPLICIT MEMORY

An important issue is what are relevant measures of implicit memory and explicit memory. This discussion also has to be within the context of the earlier discussion on the retrieval internationality criterion (Schacter, Bowers, and Booker; 1989). Recall and recognition are the usual task based explicit memory measures. Stem completion, fragment completion, and perceptual identification are some of the implicit memory measures used. Perceptual identification or fluency is usually measured in terms of how well an item can be identified under impoverished conditions. Other implicit measures used are solving anagrams (Srinivas and Roediger; 1990). Schoen, Ciofalo and Rudow (1989) compared word fragment completion to an anagram solution word-completion task and found no differences between the measures suggesting that the anagram solution is an adequate measure of implicit memory.

IMPLICIT MEMORY AND JUDGMENT

What is the relationship between implicit memory tests and judgment? Bacon (1979), Begg et al (1985) have found that prior exposure to statements, or components of statements increases the truth rating of those statements. Lewicki (1986) presents an interesting aspect of the influence of implicit learning on judgment. This study focussed on the processing of covariation (among features) present in the stimulus material that could be implicitly learned. A latency of response measure which would result in increase of processing time for the questions considered relevant to the covariation was used. His results show that subjects had learned the rule implied by the covariation and used it in their subsequent judgments but were unable to articulate it later. A relevant question, is do consumers implicitly learn about covariations in their environment which influence their judgments and purchase behavior. Covariation assessment research (Bettman, John and Scott, 1986) shows consumers' estimate of covariation was accurate and unaffected by prior beliefs. Investigations at the implicit level of how covariations can affect judgment does not appear to have been carried out.

Research by Zajonc and his co-workers show that exposure to stimuli increases affective preferences for those stimuli (Zajonc, 1984; Zajonc and Markus, 1982). Their research centers on the finding that people can form preferences for stimuli in the absence of recognition memory. Zajonc interprets his results with the proposition that affective responses are independent of cognitive processing and affect can precede cognition. Lazarus (1982) however defends the cognitive-affective model and contends that the absence of recognition does not imply the absence of cognition. The debate between these two contending viewpoints depends on how each side defines cognition and affect (Anand and Sternthal, 1991). In consumer research Anand, Holbrook and Stephens (1988) have used a dichotic learning task to find support for the cognitive-affective model over the independence hypothesis. Heath (1990) has contested the independence of affect-cognition based on the results of Anand, Holbrook and Stephens (1988).

Research on recognition shows that two processes - labelled here as perceptual fluency and directed search, are used to determine recognition judgments. (Mandler, 1980; Johnston, Dark and Jacoby; 1985, Gillund and Shifrin, 1984). Perceptual fluency (PF) is usually measured in terms of how well an item can be identified under impoverished presentation conditions (Johnston, Dark and Jacoby; 1985) or the relative ease with which people can perceive a stimulus (Anand and Sternthal, 1988) and is an implicit memory measure. A directed search would involve the generation of contextual or episodic information related to the target stimulus.

Using a two stage priming framework and signal detection techniques Johnston, Dark and Jacoby (1985), presented subjects with a series of target stimulus items after which the recognition judgments of these old target items as well as new foil items were assessed. There were two measures of perceptual fluency - (1) the time taken to identify the word correctly since PF was inversely related to latency of identification; and (2) accuracy of identification. A two by two classification of actual exposure status and judged status was then used with: hit (old item judged to be old), miss (old item judged to be new), false alarm (new item judged to be old), correct rejection (new item judged to be new). If subjects relied only on perceptual fluency then the pattern of recognition outcomes would be hits > false alarms > misses > correct rejections. If they relied only on the search factor then perceptual fluency might not affect judged repetition status and perceptual fluency would vary across recognition outcomes in the following manner: hits = misses > false alarms = correct rejections.

Johnston, et al (1985) first experiment showed perceptual fluency for misses to exceed that for false alarms therefore indicating that the search factor was also in operation. In their second experiment they reduced the contribution of the search factor by using nonwords rather than words and found that recognition judgments were much more dependent on speed of identification than they were on actual old/new status. Their conclusion is that perceptual fluency plays a

significant role in recognition judgments and may be the basis of the feeling of familiarity.

Anand and Sternthal (1988) used a dichotic learning task to investigate the affect without recognition phenomenon. Using the same experimental framework as Johnston, et al (1985) they investigated how perceptual fluency influences judgments when search fails. If one subscribes to Zajonc's view, perceptual fluency is viewed as a function of stimulus repetition or objective familiarity with the greater the repetition, the higher the perceptual fluency and the more positive the affective judgments. If however you favor Lazarus's view that cognitive appraisal is a necessary condition of affective appraisal, then the greater the subjective familiarity of a stimulus the greater the perceptual fluency and the more positive the affect. If subjective familiarity was the dominant factor, affective responses would be more positive for false alarms than for misses. Anand and Sternthal (1991) results supports the dominance of subjective familiarity (but see Heath, 1990 for an alternative viewpoint). This would also imply that affect without recognition involves some sort of cognitive process, although this would again depend on the definition of cognition and affect (Zajonc, 1984; Lazarus, 1984)

Perceptual fluency is an implicit memory test and the previous discussion suggests that when directed search fails then perceptual fluency influences judgments. If one accepts some fallibility of recall and recognition then to what extent is implicit memory directing judgment? What are the likely effects for the elderly consumer where the age deficits that are obtained so consistently on direct tests are reduced or eliminated when indirect tests are used (Howard, in press). What independent variables can impact on the relative utilities of the perceptual fluency and search factors. One variable that may cause variations is item meaningfulness. Reliance on perceptual fluency has been greatest with nonwords (Expt 2; Witherspoon, 1984 as quoted in Jacoby et al 1985) whose item meaningfulness has been low and least with words (with high item meaningfulness) (Tulving et al., 1982). Decrease in item meaningfulness clearly reduces the utility of the search factor. It should be noted that item meaningfulness is possibly a "cognitive" variable and these arguments assumes that affect is based on cognition. Other variables worthy of interest are retention intervals (discussed earlier) and repetition lag (Tulving et al., 1982). Longer repetition lags may lead to lower utilization of the search factor and increasing dependence on the perceptual fluency factor.

CONCLUSION

Implicit memory is a reasonably robust framework for many applications in consumer behavior. If the idea of consumer memory is restricted to existing recall/recognition tests then consumer researchers maybe ignoring a potentially influential dimension of consumer evaluation and decision making.

The notion of consumer memory may thus need to be expanded to include the concept of implicit

memory. Researchers should be however aware of the major debates still remaining unresolved mostly with regard to the "correct" theoretical framework and with regard to the distinction between task and process. It is a still evolving and exciting framework rich with opportunities for use in consumer behavior.

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Goal-Related Consumption and Extension Advertising: The Impact on Memory and Consumption

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ABSTRACT

Advertising which encourages a person to use or to consume a familiar product in a new situation is referred to here as *extension advertising*. This paper examines some of the delayed effects of extension advertising. In particular, it shows that these extension ads are more memorable when they explicitly make comparisons with either other products or with other situations. It also shows that regardless of the impact that these ads might have on a meal planner, their impact on actual consumption will be mediated by the attitudes of other family members.

Advertising which encourages a relatively new or different use of a product will be referred to as *extension advertising*. Arm and Hammer Baking Soda launched a very effective extension advertising campaign when it extended the use of baking soda from a baking product to a refrigerator deodorizing product. Similarly, the Florida Citrus Commission used an extension advertising campaign when it told consumers that orange juice was "not just for breakfast anymore," and could be extended into the afternoon, and after exercising. In general, extension advertising includes any advertising which encourages a person to consume a product in a situation in which it is generally not consumed, and extension advertising is defined with respect to a particular segment of consumers who do not use the product in this specific situation, or who do so very infrequently and only as a very secondary use of the product (Wansink and Ray, 1992).

In general, we commonly see extension ads which either compare or frame the target product with another product or with its use in another situation. Such framed ads can emphasize a frame of reference which encourages consumers to think of using the product either 1) with respect to the *other products* one conventionally consumes in that situation (product frame), or 2) with respect to the *other situations* in which one conventionally consumes this brand (situation frame). Though extension ads (such as the Arm and Hammer ads) need not contain any overt comparison or frame of reference (they can be "unframed"), this research shows that both situation frames and product frames will be more effective than unframed ads in causing one to remember an ad for eating a particular product in a particular situation. In addition, the research will argue that the consumption of that product will be influenced more by a meal planners perceptions of family preferences than by his or her own preferences.

BACKGROUND: CONSUMPTION FRAMING

A consumption frame refers to either the point of comparison used in an extension ad or to the point

of comparison used by a consumer when processing information about an extension. Even though consumption framing can be encouraged through the structure and content of an ad, it only has an impact when consumers perceive the frame.

An ad with a *product frame* is one that "positions" or compares the target brand with selected attributes of another product that is already favorably associated with that situation. For instance, such an ad (or commercial) might begin with a woman serving the conventional product (one that is strongly associated with the situation) in the target situation. She might say that benefit₁ and benefit₂ make it a reasonable choice for the situation. The scene would then change and she would be serving the target brand in the target situation. She says that just as benefit₁ and benefit₂ made the conventional product reasonable in this target situation, they also make the target brand reasonable for that situation. For instance, an ad that encourages consumers to eat Campbell's Soup with their dinner might compare some attributes of Campbell's Soup (e.g., quick and nutritious) with similar attributes of a product they conventionally consume with dinner (e.g., lettuce salad).

Whereas a product frame draws similarities between the target product and a conventional product, a *situation frame* draws similarities between consuming the target product in a new situation with consuming it in a more conventional situation. The basic situation-framed ad might begin with a woman serving the target brand in the situation in which it is most conventionally served. She might say that benefit₁ and benefit₂ make it an reasonable choice for the situation. The scene would then change and she would be serving it in the target situation. She says that just as benefit₁ and benefit₂ make the brand reasonable in this conventional situation, they also make it a reasonable choice for this target situation. For instance, an ad which encourages consumers to eat Campbell's Soup with their dinner might compare how eating it at dinner is similar to eating it in a more conventional situation, such as with lunch. By doing this, a situation frame emphasizes an additional situation in which the product can be consumed.

In contrast to these, an unframed ad would draw no similarities with other products or other situations. The basic unframed ad might begin with a woman serving the target brand in the target situation. She would simply say that benefit₁ and benefit₂ make it an reasonable choice for the situation. Essentially the arguments she gives (i.e., the attributes she mentions) for eating the target product in the target situation are identical to those she would have given in either the product frame or the situation frame. The only differences are the points of comparison that are suggested (or that are not suggested).

HYPOTHESES

Consumption Framing and Memory

One's actual consumption of the target product in the target situation not only depends on how the extension ad influences one's attitude toward the extension (A_{ext}) but also on whether it affects one's ability to recall or evoke the product in the appropriate consumption situation. Indeed, the cued recall of the product in the target situation is a necessary condition of consumption.

Though product frames and situation frames encourage different types of comparisons and different types of thinking, they should both be more effective than unframed ads in increasing the number (and strength) of associations that are made between the target product and the target situation. Whereas a product frame should increase the number of associations made between the target brand and a product that is already associated with the situation, a situation frame should increase the number of associations made between the new situation and more conventional situations in which the brand is consumed.

Since one's ability to recall or to evoke a brand is dependent on the number and on the strength of associations between the brand and the situation (Nedungadi 1990), the more associations that an ad can encourage a person to make between the target product and the target situation, the more likely one will recall that target brand when given that situational cue at a later date (Keller 1991). Therefore . . .

- H₁: When compared with an unframed ad, framed ads (i.e., product frames or situation frames) will generate greater recall when given a situational cue.

Extension Advertising and Consumption

Though this study focuses solely on the long-term impact of extension advertising, such advertising does have immediate impacts on one's attitude toward the extension (A_{ext}) and on beliefs (b_i) about the product and on evaluations (e_i) as to whether these beliefs are relevant in a particular situation. As is consistent with Fishbein and Azjen (1975), A_{ext} can be approximated as $\sum b_i e_i$. It has been argued by Azjen and Fishbein (1980) that any lack of correspondence between attitudes and behavior (i.e., A_{ext} and actual consumption in that situation) can often be attributed to external factors, such as to what others (such as family members) think about the behavior (behavioral norms -- bn_i) and the degree to which abiding by these people's thoughts is important to a person (motivation to comply -- mc_i). This less-than-perfect relationship between one's attitude and one's actual behavior is particularly vivid when meal planning is involved (Rudell 1979; Krishnamurthi 1983). As a result, we see meal planners who love liver and onions, but who would never serve this at their home because no one else would eat it.

Nevertheless, research has suggested that a researcher may be able to more effectively predict consumption behavior by taking these attitudes of relevant others (such as family members) into account (Pantzar 1988). Ajzen and Fishbein (1980) viewed this component as the perceived social norm (SN) and modelled it as the summed cross-product of behavior norms (bn) and one's motivation to comply (mc) with these norms ($\sum bn_i mc_i$). The social norm of serving Campbell's Soup for breakfast would consist of what a meal planner believed his or her family would think of it (bn_i) as well as the degree to which he or she cares about what family members think (mc_i). When these norms are specific to a certain extension situation (e.g., serving soup for breakfast), they are modelled as $\sum bn_{ext} mc_{ext}$.

Though Axelson, Brinberg, and Allen (1986) found that the correlations between SN and behavioral intentions were very low for both college students ($r=.10$) and for families ($r=.23$), SN may be of predictive value when combined with attitude information. In this instance, we should find that the social norms of a family can profoundly mediate the impact of the meal planner's A_{ext} on actual consumption. Regardless of how effective an extension ad is in changing the A_{ext} of a meal planner, if he or she does not think family members will like it, he or she will be unlikely to serve it. In summary,

- H₂: The perceived social norms within one's family will mediate the relationship between a meal planner's A_{ext} and actual consumption.

METHODOLOGY

The goals of the main study were 1) to determine how various frames impact one's memory, and 2) to determine how subsequent consumption is mediated by family considerations.

Subjects and Design

Adult subjects were recruited through PTA groups, and six dollars were donated to the respective organization for each of the 219 group members who participated. The age of the subjects ranged from 26 to 67 with 83 percent being between the ages of 30 and 45. The majority (86 percent) of these subjects were not employed outside the home. Their educational backgrounds were heterogeneous.

The basic experiment was a 4 x 3 x 2 between-subjects design with four levels of framing (product frame, situation frame, no frame, and a "no ad" control condition), three brands (Campbell's Soup, Jell-O Brand Gelatin, and Ocean Spray Cranberry Sauce), and two levels of appropriateness (appropriate extensions and less appropriate extensions). The products and their relative appropriate and less appropriate extensions were determined in a prestudy. In essence, the last two factors (brands and appropriateness) were included for generalizability and will not be factors which will be individually analyzed.

Procedure

Upon beginning the experiment, the subjects were told to take alternate seats, and they were given a closed packet of materials which contained a cover sheet of instructions and a number of consecutively labeled booklets. The subjects were told they were going to be comparing how understandable transcripts of commercials were to storyboards of commercials. They were then asked to read through a transcript for the target brand in a natural way, write their thoughts and feelings about it, answer the questions which followed it, read an unrelated storyboard, and to answer more questions. The objective of the cover story was to insure that subjects would process and comprehend information in the ad without unduly focusing on directly evaluating the product. They were last asked demographic questions and questions related to the manipulation checks. Three months after their involvement in the study, they were called and asked about their memory of the target product and their consumption of it.

Measures

After writing down their cognitive responses, subjects were asked a couple of questions which served as a basic set of manipulation checks regarding the frame. These questions were quantitative processing measures which used a Likert scale to rate ("Strongly Disagree" = 1; "Strongly Agree" = 7) the degree to which subjects focused on the brand or on the situation.

Following this, a measure of A_{ext} was taken by asking subjects to indicate (on a seven-point scale) whether a particular extension was "Bad-Good," "Unappealing-Appealing," "Inappropriate-Appropriate," and "Unreasonable-Reasonable." The Cronbach's alpha (.921), was high enough to enable A_{ext} to be analyzed as the average of the four items (Nunnally 1967). Make this consistent with past research on multi-attribute models).

All subjects were then asked how many times in the past year they consumed the basic product category and the percentage of times they consumed the target brand, and they were asked the degree to which they conformed to the consumption attitudes of their children and spouse ("need to comply") and how their children and spouse would feel about eating the target brand in this extended situation ("social norm"). As has been recommended (Fishbein and Ajzen 1980), these measures used a seven-point Likert scale ("Strongly Disagree" = 1; "Strongly Agree" = 7).

To determine a subject's memory of the brand and their reported consumption of it, subjects were telephoned roughly three months after they were involved in the experiment. They were given the appropriate situation cue for the ad they saw (breakfast, snack, dinner) and were asked if they could recall the brand in the transcript. They were then asked how many times (since the experiment) they consumed the target brand in the relevant extension situation. Though such measures are not without the typical flaws and biases associated with self-report measures of consumption (Jones 1985), they were

taken with the hope of adding richness to the study and adding credibility to the results.

Stimuli

Each subject saw a professionally edited ad (in the form of a transcript) for one of three brands. In total, there were 18 different ads: There were three different frames (product-, situation-, and un-framed ads) for each of the three brands (Campbell's Soup, Jell-O Brand Gelatin, and Ocean Spray Cranberry Sauce) and for each of two extensions (appropriate and less appropriate). Though this study only examines the difference between the framing conditions, by using multiple brands and a wide range of extension appropriateness, we are able to strengthen the generalizability of this study.

The eighteen hypothetical ads mentioned above were presented in the form of transcripts and each contained the two claims that were determined for each brand through the preliminary studies. The initial drafts were professionally edited by a copywriter who had significant experience with consumer products, and they were then subsequently re-edited to eliminate all irrelevant variation between conditions. These transcripts used either a product frame, a situation frame, or no frame.

The basic *un-framed* transcript begins with a woman serving the target brand in the target situation. She mentions why benefit₁ and benefit₂ make the brand a reasonable choice for the situation. The commercial then ends with a slogan containing 1) the target brand, 2) this target situation, and 3) the two benefits.

The basic *product-framed* transcript begins with a woman serving the conventional product (one that is strongly associated with the situation) in the target situation. She mentions why benefit₁ and benefit₂ make it a reasonable choice for the situation. The scene then changes and she is now serving the target brand in the target situation. She says that just as benefit₁ and benefit₂ made the conventional product reasonable in this target situation, they also make the target brand reasonable for that situation. The commercial then ends with a slogan containing 1) the target brand, 2) this target situation, 3) the two benefits, and 4) the conventional product.

The basic *situation-framed* transcript begins with a woman serving the target brand in the situation in which it is most conventionally served. She mentions why benefit₁ and benefit₂ make it a reasonable choice for the situation. The scene then changes and she is now serving it in the target situation. She says that just as benefit₁ and benefit₂ make the brand reasonable in its conventional situation, they also make it a reasonable choice for this target situation. The commercial then ends with a slogan containing 1) the target brand, 2) this target situation, 3) the two benefits, and 4) the conventional consumption situation.

RESULTS

Manipulation Checks and Overview of Analyses

Recall that this study's focus is to determine the impact that extension advertising has on consumers who are already "users" of a brand. A "user" was liberally defined as someone who had consumed the target brand *at least once in the past year*. This measure of usage also turned out to be highly related to conservative measures of brand loyalty (Jacoby and Chestnut 1978), since the typical individual in this study consumed the target brand 84 percent of the time he or she used a product from that particular product category. The subjects' prior consumption of each brand was similar across all the conditions.

The manipulation of the product frame and the situation frame appeared to be successful. Quantitative measures of processing ("I compared serving . . .") were taken on 7-point scales. They indicated that the subjects seeing situation frames "compared" the conventional situation and the target situation to a greater degree than did those subjects who saw unframed ads [$F(1,98) = 14.6, p < .01$] or to those subjects who saw product frame ads [$F(1,96) = 39.8, p < .01$]. Similarly, subjects seeing product frames compared the target brand and the conventional brand to a greater degree than did those subjects who saw unframed ads [$F(1,97) = 9.3, p < .05$] or to those subjects who saw situation frame ads [$F(1,98) = 12.4, p < .01$].

Though the hypotheses were assumed to be generalizable across all three brands and across both levels of "appropriateness," it was necessary to determine if the results for each of the brands were indeed similar enough to justify this. In general, the three brands involved in the study all exhibited similar patterns with regard to how subjects reacted toward them in both the frame and appropriateness conditions. A 3-way ANOVA (Brand by Frame by Appropriateness) was conducted on a number of key dependent variables, and the results indicated that there were mean-level differences between the brands but no significant interactions. The results indicated that there were also mean-level differences between the two levels of appropriateness but that there were no interactions. Because the basic patterns of the data were similar, the analyses were combined and each brand and each level of appropriateness was represented by a dummy variable in the analyses in order to account for their mean-level difference in response. Wansink (1990) provides a detailed reporting of this procedure.

Memory and Consumption

Subjects were phoned approximately three months after they participated in the experiment, and they were asked about their recall of the target brand and how many times they consumed the target brand in the relevant extension situation. Of those 219 people originally participating in the study, 181 agreed to provide information regarding this consumption.

There were two objectives when collecting the delay data: 1) To determine if framed ads promote cued

brand recall better than unframed ads (H_1), and 2) to determine the extent to which actual consumption is influenced by the social norms of one's family (H_2).

When given the relevant situation cue, 73 percent of those people who saw product frames were able to recall the target brand. This was significantly different than the 42 percent recall of the people who saw unframed ads [$F(1,84)=7.34; p<.01$] and directionally different from the 58 percent of those who saw situation frames. (See Figure 1). A linear contrast showed that framed ads (situation frames and product frames) were more effective than the unframed ones ($p<.05$). Though this finding was hypothesized (H_1), it was inconsistent with the cognitive responses of the subjects, for framed ads did not generate more cognitive responses than unframed ads. It may be, however, that the thoughts that were generated by framed ads stimulated associations that were stronger or more relevant than those stimulated by unframed ads.

When examining the general impact that these ads had on actual consumption, it was hypothesized that the correlation between A_{ext} and reported consumption ($r=.24$) would be greatly moderated by the social norms of one's family (H_2).

Measures of social norms (SN) were obtained by calculating the summed cross-product of behavior norms (bn_i) and one's motivation to comply with these norms (mc_i) (Ajzen and Fishbein 1980). The norms consisted of a two-item score which asked subjects whether their spouse would approve of consuming the product in this situation (1="Strongly Disagree"; 7="Strongly Agree") and whether their children would approve.

Given this measure of SN, a regression of SN, A_{ext} , and one's prior consumption frequency of the brand was conducted on actual extended consumption. Having included both appropriate and less appropriate extensions in the study should raise the variance of social norms, thus allowing us to effectively examine when SN are significant and when they are not. To test this, one regression was conducted using only the appropriate extensions, and a second regression was conducted using only inappropriate extensions. The results confirmed H_2 , for these regressions indicated that SN was insignificant when the extension was appropriate but significant when it was inappropriate ($t=2.35; p<.05$).

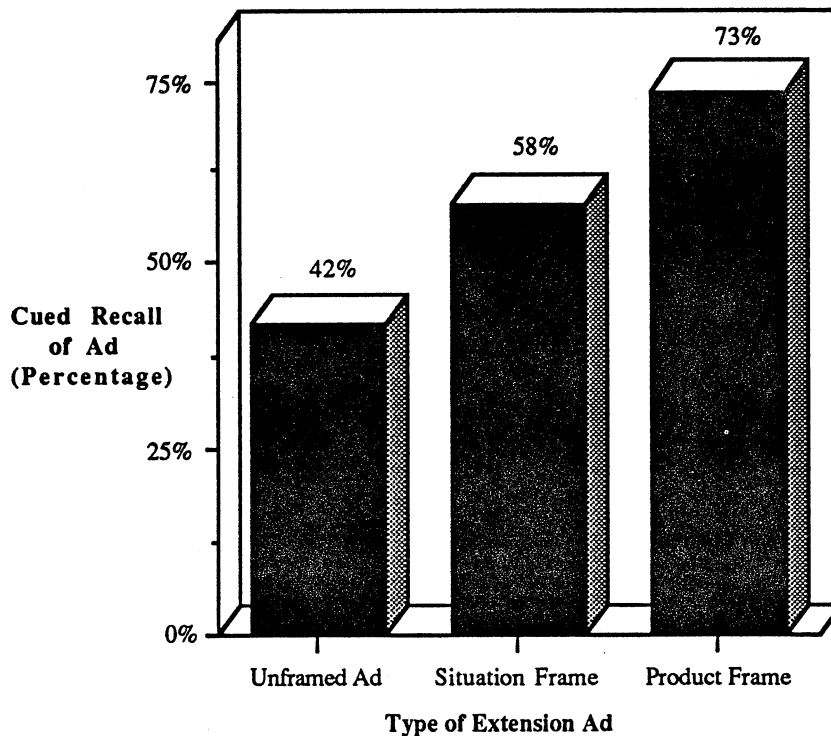
Regardless of whether an extension ad influences A_{ext} , it still had a minimal impact on consumption if a meal planner thought his or her family would dislike it. Though changing the A_{ext} of the meal planner is an important precondition to changing consumption, this analysis shows it is not sufficient, for one must also consider the A_{ext} of their family.

GENERAL DISCUSSION

Overview and Implications

Recall that people who saw product frames were more likely to recall the brand when provided a situational cue three months later (Table 1).

FIGURE 1
Impact of Consumption Frames on Cued Recall
(3 Month Delay)



Specifically, when cued with the extension situation (corresponding to the transcript they had seen three months earlier), 73 percent of the subjects recalled the target product. As mentioned earlier, this was significantly different than those who saw unframed ads (42 percent) and directionally different from those who saw situation frames (58 percent), and it provides evidence for the contention that various comparisons can have a strategic impact if they serve to influence a certain cognitive process, such as memory.

Regardless of the impact that an extension ad has on a meal planner's memory, this research shows that such an impact need not affect subsequent consumption . . . especially when a meal planner is concerned about what family members might think. Such a finding is of important managerial interest since it indicates that the most memorable commercial might not be the most effective commercial if it is targeted only toward the "decision maker" or meal planner and is not also targeted at other family members. As a result, one might want to use a "pull strategy" by advertising the extension in a clever way to children, thereby encouraging them to remember it and to request it. Conversely, an advertiser might also try to provide the proper "excuse" the meal planner might need to overcome any objections family members might have.

Limitations and Future Research

Great care was taken to make the ad transcripts as comparable as possible (except on the relevant manipulations). The subjects rated all the transcripts as being equally clear and as requiring an equal amount of concentration. The reading of these transcripts, however, was performed in a high involvement context. Nevertheless, if a person is highly involved with a stimulus, there appears to be no reason why the same principles operating here would not work in a television campaign, a print campaign, or even on the back of a brand's package. In a low involvement scenario, however, it may be that a product frame can successfully associate the brand with the largest number of situational cues, thus providing positive conditioning (with a high number of exposures) between the brand and the situation (Petty and Cacioppo 1981).

The focus of this study was on brand loyal consumers. Extension ads, however, are likely to have little or no impact on those individuals who are not interested in the product category, or who are brand loyal to another product. Nevertheless, extension ads *may* have an impact on nonusers who have not yet been introduced to the product category, and these ads may have a differential impact on heavy and light users. It may be that heavy users are more predisposed toward extensions and may thus respond differently to frames because they would be less likely

to counterargue against a product frame which suggests a substitution (Wansink and Ray 1992).

SUMMARY

For mature brands which are the market leaders in their category, increasing category volume is likely to be a much more cost-effective strategy for building sales than would be the strategy of increasing market share. Extension advertising provides a viable way to increase category volume since it encourages a person to use or to consume a familiar product in a new situation, referred to here as *extension advertising*.

This research suggests that the different comparisons made in such ads form or strengthen the associations one has between a product and a situation. In particular, this paper shows that these extension ads are more memorable when they explicitly make comparisons with either other products that are currently used in the target situation, or with other situations in which the target brand is used. In addition, however, this research also shows that regardless of the impact that these ads have on a meal planner's memory for an ad, their impact on actual consumption will be mediated by his or her perception of what what other family members would think.

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Some Measurement Issues in Consumer Research

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INTRODUCTION

The purpose of this paper is to discuss the issues raised by the three papers accepted by the Association for Consumer Research for presentation in the session on "Measurement Issues". First, a broad criteria for discussion of measurement issues is presented and then each of the papers is discussed. This discussion concludes with suggestions for applications of some of the concepts presented in one of the papers. The papers under discussion are as follows:

- 1) Gabriel S. Haberland and Peter A. Dacin, "The Development of a Measure to Assess Viewers Judgements of the Creativity of an Advertisement: A Preliminary Study".
- 2) Paul L. Sauer, Peter R. Dickson and Kenneth A. Lord, "A Multiphase Thought Elicitation Coding Scheme for Cognitive Response Analysis".
- 3) Jonathan E. Brill, "Scales to Measure Social Power in a Consumer Context".

To begin with, it would be useful to lay down some criteria for evaluation of measurement issues. For a sound measurement of constructs in consumer research three criteria may be useful. First, the purpose of the research problem ought to be meaningful and significant; the construct being developed should be conceptually sound. Secondly, the constructs that are developed ought to be rigorously measured. The measures should meet the tests of reliability and validity. Special attention needs to be paid to the requirements of validity suggested by Campbell and Fiske (1959). Reliability is also an important consideration that is often ignored. Peter (1979) reported that only 5% of the studies assessed the reliability of the measures employed. Third, for the purposes of consumer research it would be desirable to show relevant applications with some concrete examples preferably with empirical data. These applications should show effectiveness of the measures in a real life situation different from the one used in an experimental setting for testing the constructs developed. With these guidelines in view we may now proceed to discuss the three papers mentioned above.

Haberland and Dacin Paper

Haberland and Dacin's paper is very clear in its purpose i.e. to develop a valid construct of creativity in advertising from viewer's point of view. The authors make some new contribution to the consumer behavior literature. The concept of creativity has long been researched in the psychological literature, and has been intuitively practiced by the advertising industry, but it has not been *objectively* tested in an advertising setting. The April 15, 1991 issue of the

Marketing News has many articles on the concept of advertising creativity from the practitioner's point of view. Dacin and Haberland have drawn extensively from the literature in various fields: Advertising (Hinderyckx 1991, Trout and Ries 1989) and Psychology (MacKinnon 1962, Bruner 1962, Jackson and Messick 1965). Based on these studies, Haberland and Dacin deduce four dimensions for measurement of creativity in advertising i.e. 1) originality or innovativeness, 2) meaningfulness, 3) reformulation or modification of consumer attitudes, and 4) condensation i.e. simplicity in packing a lot of information in a few words; parsimony could be another word for it especially considering the time compression and high rates of inserting advertisements in the media.

Haberland and Dacin have done a satisfactory job of collecting 42 items relating to creativity and reducing them to 16 purified items. For these 16 items, the reliabilities as reflected in the coefficient alphas are acceptable e.g. at the overall level (.92), and for the individual dimensions, .87 for originality, .77 for meaningfulness, .77 for reformulation and .66 for condensation. These four dimensions are confirmed by the results of factor analysis as indicated in Table 2. The assessment of convergent and discriminant validity on the multitrait-multimethod matrix (MTMM) as suggested by Campbell and Fiske (1959) and as displayed in Table 3 is well done except that for divergent validity the choice of the divergent measures humor and attitude toward the brand is debatable. Conceptually, humor can be an essential part of a creative advertisement and therefore the two constructs are not independent. Also some of the items that are used to measure attitude toward the brand can also be included in the measure of creativity of advertisement. There is a further question regarding the reliabilities of Method 2 in the MTMM where single-item 10 point scales are employed (as different from multi-item Likert and Semantic Differential scales in method 1). Psychometrically, single item scales have been found to be less reliable than those based on multiple items (Nunnally 1967; Peter 1979, p. 16).

Evaluation of Haberland and Dacin paper on the third criterion that I mentioned at the outset led me to some disappointment. Even though the authors have developed a valid measure of creativity, they have not reported any empirical results obtained from a real life situation to test the effectiveness of this measure. Their claim that, "while creativity is currently measured by advertising professionals and brand managers, our measure focuses on viewers' judgements of the creativity of the advertisements", is an exaggeration in the absence of an evaluation of the effectiveness of this measure in a real life setting. It is hoped that the authors would be doing further research into the real life application of this measure of creativity and reporting results in the literature.

Sauer, Dickson and Lord Paper

Sauer, Dickson, and Lord's paper entitled, "A Multiphase Thought Elicitation Coding Scheme for Cognitive Response Analysis", has a well defined purpose and is based on a sound review of the existing literature. The main purpose of their paper is to improve upon an earlier coding scheme developed by Dickson and Sauer (1987). This improvement is accomplished by incorporating the suggestions of Brucks et al. (1988) with respect to the categorization of cognitive thoughts. The study of verbal protocols in marketing was pioneered by Wright (1973) who suggested three main categories for dividing verbal thoughts: support arguments, counterarguments and source derogation. Bettman and Park (1980) further refined the method of analysis and division of verbal protocols according to brand, advertisement etc. Cacioppo, Harkins and Petty (1981) divided verbal thoughts into three major categories: Target, Origin and Polarity. Brucks et al. (1988) added a fourth dimension i.e. Relevance to the three dimensions suggested by Cacioppo et al. (1988). Brucks et al. tested the application of their coding scheme to determine the cognitive structures of children's responses to television advertising.

In the current paper Sauer et al. seek validation of their scheme of coding verbal thoughts (toward the choice of a Sony Compact Disk player). These authors have done a good methodological analysis by classifying verbal responses into four categories: Type (Fishbein - Ajzen 1975, Unidimensional Tripartite theory), Target of Thoughts (Cacioppo, Harkins and Petty 1981), Self-Relevance of Thought (Markus 1980) and Polarity of Thoughts (Cacioppo, Harkins and Petty 1981). Tables 4, 5, 6 in their paper indicate the crosstabulations of the responses into various categories i.e. Target by Polarity, Target by Type, and Target by Self-Relevance. There is a good deal of similarity in the results obtained with those of Brucks et al. (1988). These results indicate associative links in the pattern of thinking in cognitive processing. Sauer et al. go a step further by aggregating response dimensions and applying the McKenzie et al. (1986) cognitive structure model to the experimental data. The results show that Type and Relevance are the predominant categories in their research data.

With respect to real life applications of this scheme, I would look forward to any results that might be reported by these authors in future. In my overall evaluation, this study was too methodologically driven and less space was devoted to conceptual explication to real life consumer and advertising issues.

Brill's Paper on Social Power

Brill's paper entitled, "Scales to Measure Social Power in a Consumer Context", attempts to construct a scale to measure the concept of social power. In this paper social power is defined as the degrees of "influence" and "resistance". Brill concludes, "It has been argued that power is an attributed outcome deriving from a social actor's dependency on another within a specific context or social situation.

Specifically, it is dependency not power, that has been posited to influence interpersonal behavior". A reading of the literature showed me that the topic of power has been extensively researched in the retailing literature in the context of inter and intra-channel relationships ((see Gaski (1984) for a review of the extant literature on channel power, conflict and contravailing power; El-Ansary and Stern (1972); Etgar 1978; Lusch, and Brown ((1982)). This literature in turn was based heavily on Social Psychological literature ((see Dahl (1957), where power has been defined as "the ability to evoke a change in another's behavior"; French and Raven (1959) identify five sources of power in terms of rewards, penalties, expertise, referent and identification; Thibaut and Kelley (1959) define power as, "an individual's power over another derives from the latter's being dependent upon him"))).

Even though Brill has made a good and well-intentioned effort to measure "the concept of social power in a consumer context", I am a bit disappointed. First, from a conceptual point of view not enough explanation has been provided on the significance of the concept of social power and how this concept is different from the existing concepts being utilized in consumer behavior literature. Only a few lines in the second paragraph in the introduction section provide some justification for a study of social power in consumer behavior where Brill States, "yet, research emphasizing power relationship between retailers and consumers, the buyers and sellers at the end of many marketing channel systems, is relatively uncommon. And, even when these power relationships are considered, the focus is typically on the retailer with little, if any, regard paid to power associated with consumers". It would have been more desirable to elaborate on the importance of social power in a variety of consumer settings and to develop a model and suggest some hypotheses in a given context. The concept of social power is not new in consumer behavior. Fishbein and Ajzen's (1975) extended model of behavioral intention is relevant here, especially the concepts of social norms and motivation to comply. The latter concept is similar to the idea of social resistance mentioned by Brill. There is a whole lot of related literature on reference group, personal values, attributions, consumer complaint behavior (CCB) from where information on social power and related concepts could have been drawn. Instead, Brill uses a lot of space in the paper on the discussion of the definitions of power as found in the psychological literature. Perhaps, Brill should have presented a conceptual model in consumer context. It would have been better for Brill to expand on the interdependent relationship between the retailer and the consumer. Even though Brill tries to develop a general concept of social power, he does not seem to rise above the retailing context. There seems to be some confusion whether the intended context of Brill's future application is retailer-consumer relationship or some other possibilities in consumer research e.g. consumer complaint behavior. This same conceptual flaw is evident in the discussion of the potential applications of the measure of social power in the

section of the paper on research applications. More elaborate, imaginative, treatment could have been given to potential applications.

Let us now evaluate this paper from a methodological point of view. For operational purposes the construct of "Consumer Power" (or social power) is broken down into four sub-scales: Social Influence (SI), Social Resistance (SR), Consumer Influence (CI), and Consumer Resistance (CR). Conceptually social resistance and consumer resistance are not the same, just as social resistance and consumer resistance are not the same. When we look at the "consumer power" and "consumer resistance" items given in the appendix to the paper, many of the items can also be found in a scale of consumer discontent (Lundstrom and Lamont 1976) or a scale of consumer alienation (Allison 1978). In his paper, Brill does not clarify how the pool of (39) items for his study was developed for these four subscales mentioned above. Brill, however, does mention the source of two other scales used for validity check i.e. Powerful Others Control (POC) and Internal Control (IC); for these 2 scales, 24 items were borrowed from Levenson (1974) who in turn based them on Rotter's (1966) Internal-External Locus of Central Construct. Alpha reliability coefficients for SI (.87), SR (.62), CI (.66), CR (.75) were reported. Relatively low reliabilities for SR and CI are justified by Brill on the ground that each scale has the desirable characteristic of having items with large standard deviations. This reasoning along with the conclusion that "these two scales would seem to offer high discriminatory power" is not very convincing. The analysis of convergent and discriminant validity following the display of Table 2 is very confusing. This analysis did not seem to rigorously follow the guidelines suggested by Campbell and Fiske (1959) by the multitrait-multimethod matrix (MMTM). A better presentation and discussion of the validity analysis would have been desirable.

In the discussion of limitations of the study, Brill seems to think that having a convenience sample is a serious limitation. This is not necessarily true. As Calder, Phillips and Tybout (1981) point out that if the purpose of a study is theory development and testing of hypotheses, convenience sample or a laboratory study is preferable to a representative sample or a field study (where the goal is generalizability). Since theory development is the main purpose of Brill's paper, convenience sample is not a serious limitation. It is the other conceptual and methodological weaknesses pointed out here that Brill should be concerned with.

Finally, as I mentioned earlier, in the area of giving concrete examples of potential applications of the scales developed, Brill's paper could have been more imaginative. I will now present one example of my own for a potential application of the concepts of consumer influence and consumer resistance in the area of consumer complaint behavior (CCB). The CCB literature shows that there are three main methods of expressing complaints: Voice, Private Party and Third Party (Singh 1988). The main antecedents CCB are: the intensity of dissatisfaction, attitude toward

complaining, expectancy-value of complaining, and power experience complaining. We could add one more antecedent to the CCB i.e. consumer influence - consumer resistance, i.e. how much leverage the consumer has over the retailer or the manufacturer in getting redress for the complaint. This is especially true for voicing and third party action. The resolution of consumer complaints could be a net result of the relative power of the two parties i.e. the seller and the consumer. Also, there seems to be some overlap between the items included in the consumer resistance construct developed by Brill and the attitude toward the act of complaining widely used in CCB literature (Richins 1983a, 1983b; Singh 1990). Perhaps, a judicious combination of items from the two scales could be very useful to the multidimensional conceptualization of the CCB.

CONCLUSION

I have discussed three papers on the three useful criteria: a) the conceptual soundness and significance of the construct being measured, b) methodological rigor in applying tests of reliability and validity, c) the presentation of empirical data to show some real life application of the constructs developed. All the three papers have made useful contribution to consumer research e.g. Haberland and Dacin in the area of creativity in advertising, Sauer et al. in developing a coding scheme for cognitive thoughts and Brill on social and consumer power. All the three papers were however deficient on the third criterion I laid out i.e. empirical data on some real life application. I hope that they would be doing so in future. I found Haberland and Dacin paper and Sauer et al. particularly sound conceptually and methodologically. I found Brill's paper a little weak conceptually and methodologically. It is hoped that these suggestions would be useful for researchers in the area.

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The Development of a Measure to Assess Viewers' Judgments of the Creativity of an Advertisement: A Preliminary Study

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ABSTRACT

Advertising professionals have traditionally placed a high value on creativity, yet recently some have begun to question the importance of creativity in advertising. This paper attempts to lay the foundations for the systematic evaluation of viewers' reaction to creative and less creative ads, by developing and testing a measure of viewers' judgments of the creativity of an advertisement. Our exploratory study shows this measure has good psychometric properties and the ability to classify ads a priori as more or less creative. Consequently, we feel that our measure could allow researchers to investigate responses to ads that differ in their level of creativity, and study the factors that contribute to the production of creative ads.

INTRODUCTION

For many advertising professionals creativity is the lifeblood of their profession. Advertising agencies have "creative departments," the advertising profession has coveted awards for creative advertising, and the advertising literature has traditionally stressed that good campaigns need to be creative (Bernstein 1974, Whittier 1955). Yet there are also critics who allege that the emphasis on advertising creativity is contributing to the demise of advertising. Trout and Ries (1989) argue for dethroning the "God of Creativity" to make way for more emphasis on positioning as the objective of good advertising, and other experts advocate emphasis on product benefits, not creativity, as hallmark of successful advertising campaigns (Hinderyckx 1991).

However, no reliable measure of advertising creativity exists and thus conjecture plagues the debate over the importance of advertising creativity. Currently advertising creativity is typically assessed by agreement among advertising professionals or brand managers. Furthermore, this assessment often occurs after the airing of a campaign when its success or lack thereof is known. As a result, the arguments of creativity advocates that campaigns which win creativity awards are by and large also highly successful (Fallon 1989, Kagan 1989) are weak, since creativity judgments are often not entirely independent of knowledge about success. More importantly, whether viewers also consider these advertisements to be creative never enters into these judgments. It is our belief, however, that in order to investigate the relationship between creativity and advertising effectiveness the viewer's judgments of creativity must be taken into account. Therefore, a measurement of advertising creativity from the viewer's perspective is necessary.

The focus on awards in the advertising industry also implies that an object is either creative or not. While this may be a useful perspective for award granting, we believe that it is more likely that

advertisements vary in degree of creativity. Current measures do not capture this continuum. Creativity adversaries often argue that not all effective ads win awards for creativity, yet this does not mean that effective ads are not creative. For example, Trout and Ries (1989) point to advertisements which, while highly successful in stimulating sales, received no creative acclaim. However, these ads may still be very creative, although not sufficiently creative to win awards.

Given that many of these problems stem from our inability to reliably and validly assess the creativity of advertisements, our objectives are two fold. First we want to address the problem of identifying creativity by developing a definition of creativity in advertising based on the literature on creativity. Second we want to undertake a preliminary operationalization of this definition resulting in a valid and reliable measure of creativity that reflects its underlying dimensions.

To this end, we begin with a review of the relevant literature in psychology and advertising, assessing existing perspectives on creativity. Then, we integrate these perspectives into a multi-dimensional definition of creativity that serves as a useful basis for identifying creative advertisements. Next, we undertake an initial assessment of reliability and validity of the measure and, finally, we report our findings.

LITERATURE REVIEW

Developing a measure of creativity requires a definition of the construct and specification of its domain (Churchill 1979). To do this, we begin with a review of extant approaches to creativity focusing on both the definitions and measures that have been used.

A noted feature of research on creativity is that there is a long history of disagreement about the preferred approach to understanding the construct (Amabile 1983). Three approaches are found in the literature. These are: (1) identifying traits of creative people, (2) identifying the processes necessary to bring about creativity and, to a much smaller degree (3) identifying characteristics of creative outcomes. We feel that none of these approaches alone is adequate to understand creativity. Rather, we believe that it is necessary to draw from all three approaches. To do this, we review the definitions of creativity in each of the three perspectives.

Barron (1955) represents an early approach to creativity. His focus was on identifying the personality traits that lead to creative responses among individuals. He categorized the responses of individuals to various problems as either creative or uncreative and then compared the personality traits of the two groups, noting any differences. The definition of creativity used by Barron to categorize responses consisted of two components—originality and

adaptiveness to reality. Originality referred to an "uncommonness" of a response in relation to responses of others. Adaptiveness to reality, occurred when an individual provides an objectively correct solution to a problem which permits such assessment, or when an individual provides an appropriate response based on consensus among experts. Mac Kinnon (1962) later added a third component—a creative output needs to be developed and elaborated, it has to be more than a one time original insight.

The second approach to creativity appears in a series of studies that attempt to identify stages of the creative process, and the factors that set this process apart from other processes (e.g., Newell, Shaw and Simon 1962). In this approach the definition of creativity is a special type of problem solving behavior that applies to situations that are complex and require novelty (i.e., could not be expected from previous information) and unconventionality (i.e., modification or rejection of previous solutions), and is characterized by the use of heuristics rather than algorithmic approaches. Therefore, according to this definition, creativity is not relevant in all facets of life.

Bruner (1962), takes a somewhat different view of creativity from the previous ones in that, to him, creativity is not a characteristic of an output or a process, but rather the reaction produced in the receiver of the output. He defines creativity as "an act that produces effective surprise." Bruner argues that one important aspect of surprise is unexpectedness that produces wonder or astonishment. Unexpectedness, in contrast to novelty and originality, is dependent on the situation and does not have to be rare, infrequent or bizarre. In addition, he argues that a second important aspect of effective surprise, is the "quality of obviousness." Creativity should produce a "shock of recognition, following which there is no longer astonishment"—the unexpected has to matter to be meaningful.

These approaches to creativity tend to incorporate definitions that focus on only one or two dimensions. However, authors who follow the third approach, attempting to identify characteristics of creative outcomes, use multi-dimensional conceptualizations of the construct. For example, in their definition Jackson and Messick (1965) identify four underlying dimensions: unusualness, appropriateness, transformation and condensation. Unusualness or novelty refers to uniqueness or infrequency against a norm. Appropriateness can be either external (referring to the degree to which a product fits the demands of the situation), or internal (the degree to which an output is consistent in its parts). Thus, appropriateness requires an evaluation of fit in the context for which the output was developed. These two dimensions are common to most conceptualizations of creativity.

Jackson and Messick's two other dimensions, however, are more abstract, harder to grasp, and rarely appear in other definitions of creativity. Transformation denotes the degree to which an output has the potential to force someone to view reality in a new way. It must be judged relative to the strength and

nature of the constraints that are transcended. Condensation refers to the degree, to which a product achieves simplicity and summarizes the essence of a situation. A condensed outcome conveys a lot of meaning, provides a richness of interpretation and is appropriate for many aspects or situations.

Similar to Bruner, Jackson and Messick hypothesize that each of these dimensions evokes a different response in the listener or viewer of creative output. Unusualness evokes surprise, which is highest upon exposure and diminishes as the listener or viewer assimilates the object or event into their experience. Appropriateness leads to satisfaction—a recognition that the output is complete or sufficient. The presence of transformation stimulates the listener or viewer to alter their conventional way of perceiving or thinking about the world. Condensation leads the listener or viewer to deliberately, carefully and repeatedly examine the output.

Despite the existence of multi-dimensional conceptualizations of creativity, many researchers continue to operationalize the construct as a broad overall judgment by simply asking individuals whether they think something is creative (e.g., Amabile 1983). While these measures sometimes show high inter-rater reliability, they add little to our understanding of the construct. We believe that these broad judgments can not capture all the dimensions of the construct. The high reliabilities may simply reflect respondents making creativity judgements based only on the originality or novelty dimension. Consequently, individuals who adopt this perspective for producing creative output will find themselves working on a hit or miss basis. This is especially true for advertisers who, when attempting to produce creative campaigns, would benefit from an understanding of how all the underlying dimensions of creativity contribute to the effectiveness of an advertisement. Furthermore, since advertising effectiveness depends on viewers' judgments, a measurement of advertising creativity from the viewer's perspective is necessary.

CREATIVITY IN ADVERTISING

Just as a poem, painting or theory is an output that can be judged on creativity, these judgments can also be made about advertisements. Thus, specifying an advertisement to be a creative outcome allows us to use the previous literature base to develop a multi-dimensional definition and measure of creativity in advertising.

Based on our previous literature review, we conceptualize the creativity of an advertisement as the extent to which it is: (1) original and unexpected (2) appropriate and meaningful in an advertising context (3) requires the viewer/listener to (re)formulate or modify their attitude towards an advertised product or service and (4) is condensed, that is, it is simple, yet conveys a lot of meaning and offers a richness of interpretation.

Similar to Bruner (1962), and Jackson and Messick (1965) we also assume that a creative ad evokes several responses in the viewer. Specifically: unexpectedness leads to surprise: appropriateness and

meaningfulness lead to a satisfaction with the message; reformulation leads to examination of the previous way of thinking about a product or a product class; and condensation leads to deeper thinking about the ad and to the formation of associations based on ad content.

Furthermore, this approach leads us to believe that it is possible to measure the creativity of an output at two levels. The first level involves a judgment of how unusual, appropriate and condensed an output is and to what degree it embodies transformations. The second level assesses the presence of a corresponding affective response in the listener or viewer. Therefore, we believe that it is possible to operationalize all dimensions of creativity at two levels: (1) the cognitive or evaluative level, which calls for direct assessment of the presence of the criteria (i.e., by asking a subject for their judgment of the originality of an advertisement) and (2) the affective level which calls for an assessment of a subject's affective reactions (e.g., surprise) upon seeing the ad.

The first dimension is common to most existing definitions of creativity. While this is generally assessed against a norm established by the researcher (e.g., infrequency relative to a sample or population), this notion is irrelevant in the advertising context. Rather, we believe that each viewer, based on their lifetime experience with advertising, has certain expectations for advertisements. To the degree that an advertisement deviates from this expectation, the viewer is more likely to call an ad original or novel. However, as we previously argued, originality alone does not constitute creativity.

The second dimension, appropriateness/meaningfulness, is also important. In an advertising context, this definition implies that although a viewer may judge an ad to be unexpected, original, or "out of the ordinary," the advertisement is not necessarily creative unless it also conveys some meaning about the advertised product.

The third dimension, reformulation, is based on the existing dimensions of transformation (Jackson and Messick 1965), and unconventionality (Newell, Shaw, and Simon 1962). It represents the necessity of the viewer/listener to (re)formulate or modify their attitude towards an advertised product or service. In an advertising context, this dimension is difficult to isolate. It requires not just the form of an ad to be novel, but also its content. It also requires that the information provided is meaningful and provides some new or contrasting information the consumer did not know or did not consider.

The fourth dimension—condensation—is one previously proposed by Jackson and Messick (1965) only. However, it is relevant for an advertising context in which advertisers generally strive for a simple message that is rich in the information conveyed.

DEVELOPING THE MEASURE AND METHOD

In developing the measure, we first generated a set of items based on the four dimensions of our definition. We used several sources to generate these items including the literature reviewed above, textbooks and, journal articles in advertising which often contained colorful statements by advertising practitioners. From the large pool of items that initially resulted, we selected 10 – 12 items for each dimension that in our view best captured the dimension.

Next, we developed an initial questionnaire. We operationalized items as either Likert or Semantic Differential scale items in order to allow for variety in an otherwise lengthy questionnaire. We worded some scale items positively and some negatively to prevent subjects from rapidly marking the same box for all items. Furthermore, items were randomly ordered to mix dimensions. We then pretested this questionnaire for understanding and made some minor changes as a result. The resulting items for each dimension appear in Table 1.

In order to assess the validity of the measure with a multitrait-multimethod (MTMM) approach (Campbell and Fiske 1959), we needed a second measure of creativity, using a maximally different method to assess the construct. In practice, however, the use of very different methods is difficult. For example, in this study, since all measures needed to be collected by means of a questionnaire both our measure and the alternative measure of creativity were self-report measures, thus, limiting the difference between methods. To introduce some difference, however, we decided that our alternative measure would ask subjects to directly judge the creativity of the ad on a 10 point scale. This seemed sufficiently different from our indirect "dimensional" approach, in which the word creative was never explicitly mentioned. The direct judgment also corresponds to the widely used practice of assessing creativity by independently asking experts for their judgment without providing them with explicit criteria to use.

Use of the MTMM approach also requires the measurement of at least one other construct, which should be independent from creativity, but assessed using similar methods. We decided on two constructs—how humorous the advertisement was, and attitude towards the advertised brand.

We measured humor in two ways. The first measure consisted of two Likert (the advertising makes you smile, the advertising is amusing) and two Semantic Differential Scale Items (dry/entertaining, funny/serious). The second measure consisted of a 10 point scale asking respondents to judge how humorous the ad was. We recognize that the choice of humor does not meet the ideal criteria for the MTMM, since humor and creativity of an ad are not completely unrelated, very creative ads are often also amusing. However the reverse need not be the case.

We also chose to measure attitude towards the brand because it is a construct for which generally accepted measures exist in the literature. Several researchers have used the same four item Semantic

TABLE 1
Initial Likert and Semantic Differential Items to Assess Creativity

Item No.	Item Content	Dimension
1.	This advertisement does tell you why you should buy the product.	Meaningfulness
2.	This advertisement is very similar to other ads for this type of product.	Originality
3.	This advertisement does <i>not</i> change your view about the product.	Reformulation
4.	You hardly know what is advertised.	Meaningfulness
5.	This advertisement makes you think how the product may be useful for you.	Condensation
6.	The advertising message is <i>not</i> easy to remember.	Condensation
7.	The advertising is unique.	Originality
8.	I never thought about the product in the way the advertisement presents it.	Reformulation
9.	You get a good idea what the product is like.	Meaningfulness
10.	There is so much in this ad that you want to see it again.	Condensation
11.	I <i>don't</i> see the point of this advertisement.	Meaningfulness
12.	The ad uses a simple but powerful way to get the message across.	Condensation
13.	This advertisement stands out.	Originality
14.	This advertisement was meaningful for me.	Meaningfulness
15.	This advertisement showed me the product has certain advantages I did not know before.	Reformulation
16.	This advertisement is really "out of the ordinary".	Originality
17.	This advertisement makes you want to buy the product.	Reformulation
18.	This advertisement makes you see the product in a new light.	Reformulation
19.	This advertisement brings a lot of thoughts to my mind.	Condensation
20.	The information given is difficult to summarize.	Condensation
21.	The advertisement is not at all imaginative.	Originality
22.	I never thought of this aspect of the brand before.	Reformulation
23.	I was astonished when I first saw this advertisement.	Originality
24.	This advertisement is intriguing.	Originality
25.	This advertisement does not have anything to do with me or my needs.	Meaningfulness
26.	This advertisement knocks your socks off.	Originality
27.	interesting/uninteresting	Condensation
28.	commonplace/surprising	Originality
29.	personal/impersonal	Meaningfulness
30.	boring/stimulating	Reformulation
31.	succinct/diffuse	Condensation
32.	haphazard/thoughtful	Condensation
33.	novel/conventional	Originality
34.	satisfying/unsatisfying	Meaningfulness
35.	involving/uninvolving	Reformulation
36.	shallow/profound	Condensation
37.	unfamiliar/familiar	Originality
38.	useful/useless	Meaningfulness
39.	changes your view/ does not change your view	Reformulation
40.	expected/unexpected	Reformulation
41.	good/bad	Meaningfulness
42.	routine/imaginative	Originality

Differential Scale (good/bad, poor quality/high quality, unpleasant/pleasant and like very much/dislike very much) to assess respondents' attitudes towards the advertised brand. The reported reliabilities (coefficient alpha) are generally high, 0.88 Mitchell and Olson (1981), 0.91 Edell and Staelin (1983), 0.92 Mitchell (1986). Again, brand attitude is not entirely independent of creativity, since a creative ad may induce people to view a product more favorably. However, attitude has many determinants

besides exposure to one advertisement (e.g., product experience).

Since it is more difficult to distinguish among related than unrelated constructs, one advantage of using two constructs related but conceptually independent from creativity is that this allows for a stricter test of construct validity. We pretested the questionnaire with the measures of creativity, humor and brand attitudes. No changes were necessary.

DATA COLLECTION AND ANALYSIS

We collected data in the main lobby of a student union at a large Midwestern university. Most respondents were students. Respondents were recruited at random and asked to watch a TV commercial on a video monitor and then fill out a questionnaire about this commercial. In all, we used 38 different TV commercials, recorded either from network broadcasts or agency tapes. We selected ads that we believed reflected a wide spectrum of creativity, ranging from "slide type" ads for a special sale at a local store to a national beer campaign that won a CLIO award. Respondents watched one commercial and then filled out the questionnaire.

We needed a minimum of 100 subjects since an item analysis requires 5 to 10 times as many subjects as items (Peter 1979). In total, 102 subjects completed the study.

Our data analysis had three objectives. First, it would assess the reliability of our measure. Second, it would suggest how to purify the measure through deletion of items with poor psychometric properties. Third, it would also provide a preliminary assessment of the validity of the proposed measure.

Assessing Reliability and Purifying the Measure:

As a first step, we calculated reliabilities for each of the four dimensions. This resulted in the following coefficient alphas: 0.91 for originality, 0.80 for meaningfulness, 0.79 for reformulation, and 0.69 for condensation. The overall reliability of the measure was 0.93 based on a formula for the reliability of a linear combination of measures (Nunnally 1978). This is somewhat higher than any of the dimensional measures, since the overall measure is also longer than any dimensional measure and errors are more likely to cancel each other.

From a practical standpoint, however, a 42 item measure of a construct is long and cumbersome. The length of this questionnaire could be detrimental to the purpose of any future study of creativity. Faced with many questions about one short advertisement, subjects may try to make consistent statements about the ad rather than actually evaluate it. We, therefore, decided to attempt to purify the measure and shorten it without sacrificing its reliability.

A plot of the correlation of items with their corresponding total dimension scores did not reveal any large gaps that indicate cut-off points beyond which we could eliminate items. Consequently, the choice of how many items to eliminate would be somewhat arbitrary. Since the reliability of the overall measure was very high, we felt that we could eliminate several of the least reliable items and maintain a high degree of reliability. Therefore, we decided to halve the number of items, retaining five items per dimension. One reason for this was that the equal number of items would allow for an equal influence (i.e., equal weight) of each dimension on the total score.

Elimination of items based strictly on statistical analysis (i.e., low reliabilities), however, may be inappropriate. There is a danger that this could

alter the domain of the construct being sampled. For example, this might result in the elimination of items that capture any different aspects of a dimension, and thus a scale of items that are identical to one another except for minor differences in wording. To ascertain whether this bias was present we carefully examined each item before deciding on its elimination.

The biggest difference in each dimension was among items designed to assess respondents' cognitive evaluation and those designed to assess their affective reaction. For example in the case of the originality dimension, respondents evaluated whether the ad was unique (cognitive evaluation) and whether it had made them surprised or astonished (affective reaction). Therefore, we wanted to maintain both cognitive and affective items for each dimension. Fortunately, the items that remained after we eliminated other items on a statistical basis allowed for this.

In several cases an inspection of the items made it clear why they had fared relatively poorly in the statistical analysis. For example, one item "familiar/unfamiliar", appeared to be ambiguous since some subjects seemed to interpret it to refer to uniqueness (originality) while others used it to indicate that they had seen the ad had previously. In other cases the wording of items seemed to be too strong to be meaningful in the advertising context (e.g., "the ad that knocks your socks off"). Consequently, we felt comfortable eliminating those items suggested by the statistical analysis.

The purified 20-item measure had a reliability of 0.94, with the following coefficient alphas for the four dimensions: 0.90 originality, 0.81 meaningfulness, 0.80 reformulation and 0.74 for condensation. No deterioration of reliabilities occurred despite the extensive shortening of the measure.

After purification, we factor analyzed the data using principal components as suggested by Churchill (1979). Factor analysis was appropriate because the three criteria of appropriateness for its use as listed by Stewart (1981) were met. First, the correlation matrix showed that the correlations among most variables were at least moderately high. Second, the plot of eigenvalues of the correlation matrix did have two breaks after the first and the fourth eigen value. Third, all communality estimates (four-factor solution) were at least moderately high (at least above 0.49). The results, therefore, met all of Stewart's criteria.

In deciding how many factors adequately captured the covariation in the data, we used the roots criterion. This calls for the extraction of all factors with eigenvalues larger than 1. In the present case, this resulted in a four-factor solution supporting our a priori hypothesis of four underlying dimensions. We then rotated this solution to facilitate interpretation of the factor loadings. We performed varimax, quartimax and equamax rotations and compared their solutions. All three techniques led to similar conclusions. Consequently, for the sake of efficiency we base the following discussion on the varimax rotation only. The result of this analysis is shown in Table 2.

TABLE 2
Results of Factor Analysis (Varimax Rotation)

Item No.	Item Content (a priori Dimension)*	Factor Loadings			
		F ₁	F ₂	F ₃	F ₄
7.	The advertisement is unique (O)**	<u>.82</u>	.21	.01	.23
42.	routine/imaginative (O)	<u>.75</u>	.27	.20	.09
16.	This advertisement is really "out of the ordinary" (O)**	<u>.80</u>	.09	.05	.20
24.	This advertisement is intriguing (O)**	<u>.72</u>	.08	.40	.12
28.	commonplace/surprising (O)**	<u>.72</u>	-.07	.36	.18
4.	You hardly know what is advertised (M)**	-.25	<u>.77</u>	.06	.12
34.	satisfying/unsatisfying (M)**	.35	<u>.66</u>	.15	.26
38.	useful/useless (M)**	.19	<u>.67</u>	.02	.44
41.	good/bad(M)**	.52	<u>.63</u>	.20	.29
14.	This advertisement was meaningful for me (M)	.33	.31	.45	.46
3.	This ad does <i>not</i> change your view about the product(R)**	.13	.23	.16	<u>.69</u>
17.	This ad makes you want to buy the product (R)**	.10	.48	.18	<u>.63</u>
18.	This ad makes you see the product in a new light (R)**	.40	.10	-.03	<u>.73</u>
39.	changes your view/does not change your view (R)**	.25	.16	.18	<u>.70</u>
35.	involving/uninvolving (R)	.64	.38	.16	.18
6.	The advertising message is <i>not</i> easy to remember (C) **	.16	.38	<u>.67</u>	-.18
12.	The advertisement uses a simple but powerful way to get the message across (C) **	-.05	.17	<u>.59</u>	.39
19.	The ad brings lots of thoughts to my mind (C) **	.33	-.12	<u>.67</u>	.32
27.	interesting/uninteresting (C) **	.56	.19	.50	.12
10.	There is so much in this ad that you want to see it again (C)	<u>.52</u>	-.08	.40	.22
Variance Explained by Rotated Components		.27	.14	.11	.14

*Key to dimensions: O=Originality, M=Meaningfulness, R=Reformulation, C=Condensation
** These items were retained in the final measure of creativity

Table 2 suggests that the four factors obtained in the analysis corresponded to our a priori hypothesized dimensions. Five items had high loadings on the first factor and all five belonged to the dimension originality. Therefore, factor 1 represented originality. On each of the other factors, we found at least four items to load much higher than the remaining items. Again, in each case these four items corresponded to our a priori specified dimensions. All four items for factor 2 belonged to meaningfulness, all four items for factor 3 belonged to condensation, all four items for factor 4 belonged to reformulation. The factors therefore represented these dimensions well.

Among the remaining items, items 10 and 35 correlated higher with originality than with their intended dimension and item 14 correlated moderately with several dimensions. After considerable discussion, we decided to eliminate these items.

While most of the remaining items loaded highly only on one factor, three items did not perform well in the rotation. Items 41 and 27 loaded highly on both the dimensions they were intended to measure as well as originality, and item 17 loaded high on both reformulation and meaningfulness. We felt that one reason for this was that these items assess a more

affective reaction to the ad and, therefore, unlike the more cognitive based items, tended to be related to more than one dimension. However, since all three items are theoretically important aspects of our construct and would lead to an underrepresentation of an affective component if we eliminated them, we retained these items in our measure.

The purified 16 item measure had an overall reliability of 0.92 with the following coefficient alpha's for each dimension: 0.87 for originality, 0.77 for meaningfulness, 0.77 for reformulation, and 0.66 for condensation. Since this is a preliminary attempt at developing this measure, one must keep in mind that these reliability figures are at this point no more than first estimates. Reliability can only be established over several different samples and occasions. Any one occasion contains too much measurement artifact to warrant a final conclusion. In this study the problem is even more severe, since we have significantly shortened the questionnaire items can now be said to appear in a different context. This may affect reliability scores.

TABLE 3
Multi-Trait Multi-Method Matrix For Measure of Creativity

		Method 1 (Multi-Item)			Method 2 (Single-Item)		
		Creativity	Brand Attitude	Humor	Creativity	Brand Attitude	Humor
Method 1							
Multi-Item	Creativity	(.922)					
Likert & Semantic Differential	Brand Attitude	.370	(.881)				
	Humor	.618	.206	(.804)			
Method 2							
Single-Item	Creativity	.794	<u>.193</u>	<u>.620</u>			
10 point Scale	Brand Attitude	<u>.406</u>	.652	<u>.255</u>	.308		
	Humor	<u>.463</u>	<u>.167</u>	.778	.519	.221	

Note: Reliabilities (Coefficient Alpha) are parenthesized. Entries in the validity diagonal are bolded. Entries in the heterotrait-monomethod triangles are italicized. Entries in the heterotrait-heteromethod triangles are underlined.

Assessing the Validity of the Measure:

We assessed two aspects of construct validity: convergent validity and discriminant validity. Since no established theories exist with respect to creativity in advertising, we could not assess nomological validity.

We based our assessment of convergent and discriminant validity on the multitrait-multimethod matrix method (Campbell and Fiske 1959). The matrix, shown in Table 3, consists of the intercorrelations among each of several traits measured by each of several methods.

Evidence of the convergent validity occurs in the entries in the validity diagonal which represent the correlations between different measures of the same trait. The entries of 0.794 for the creativity measures, 0.652 for the attitude measures and 0.778 for the humor measures are fairly high and indicate that for each construct the two different methods seem to measure the same thing. This suggests the presence of convergent validity for the measures of each construct.

A closer analysis shows a very high correlation (0.862) between the score for the originality dimension and the single-item alternative measure of creativity. Furthermore, this correlation is higher than all other correlations between dimension scores and the one-item measure, as well as between the one-item measure and the overall multi-item measure (0.794). This suggests, as we previously suspected, that when subjects are asked to directly judge the creativity of an ad, they rely more heavily on originality than any other of the hypothesized dimensions. To the extent that the other dimensions are equally important aspects of creativity, the multi-item measure is then a more valid measure of the construct.

We assessed discriminant validity using the three criteria suggested by Campbell and Fiske (1959). First, we examined whether the entries in the validity diagonal were higher than the correlations that lay in the same column and row of the heterotrait-heteromethod triangles. This is necessary to demonstrate that the two creativity measures have more in common with one another than with other measures which neither assess the same trait, nor use the same method. Our data met this requirement even though the heterotrait-heteromethod triangle correlations were fairly high. These high correlations suggested that creativity, humor and attitude toward the ad may not be as independent as ideally desired for use of the MTMM matrix. This is particularly true of the measure of humor.

Second, we investigated whether the validity coefficients (entries in the validity diagonal) were higher than the correlations in the heterotrait-monomethod triangles. This would indicate that alternative measures of the same construct are more closely related with each other than with measures of other constructs employing a similar method (scale). Again our data met this criterion even though correlations between creativity and other constructs are high.

Third, we examined whether the same pattern of correlations existed in the heterotrait-monomethod and heterotrait-heteromethod triangles. This would tell us whether creativity measured by either method has the same relation to other constructs. In general the data meet this criterion. When we ranked the correlations in each triangle by size, the correlations between creativity and humor were always the largest. The second largest correlations generally occurred between creativity and brand attitude, with one

exception. In the upper right heterotrait-heteromethod triangle, the correlation between humor and brand attitude was slightly higher than the correlation between creativity and brand attitude.

CONCLUSION

Developing a definition of an abstract construct such as creativity, is an important contribution to the debate among advertising professionals about the importance of developing advertisements that are creative (e.g. Trout and Ries 1989, Beaver 1989). As in many controversies, a part of the differences in opinion may be attributable to a different understanding of the focal concept. Indeed one of the proponents of creativity (Beaver 1989) has suggested that the problem is not creativity per se, but the narrow view of creativity held by some professionals who consider only the executional elements of an ad as creative, rather than evaluating the advertisement holistically.

To move this debate from the realm of polemics to scientific investigation, it is necessary to develop a clear understanding and a valid measurement of the creativity of an advertisement. The definition developed for this study, identifies dimensions that we believe are necessary to evaluate creativity. Consequently, our approach may provide additional guidance to advertisers who strive to develop creative ads.

Based on this definition we developed a measure of the creativity of an advertisement that allows us to tap creativity assessments of more than one constituent group. We feel that much of the controversy around the importance of creativity of advertisements may stem from differences in perspectives employed. While creativity is currently measured by advertising professionals or brand managers, our measure focuses on viewers' judgments of the creativity of advertisements. Assessments by advertising professionals may often be overly focused on the novelty of executional elements, for which they see themselves as responsible. Since a viewer's reaction to creative ads is at the heart of the debate among professionals, it seems that the viewer's judgments of creativity should be the most relevant assessment of advertising creativity. As such, our measure may be helpful for identifying whether viewers will also judge a campaign to be creative.

Data we collected showed our measure to be both reliable and valid. Furthermore, we were able to retain good psychometric properties for the measure even with a substantially shortened version. While the long form of the measure may be useful for theoretical/academic based research, we feel that at a practical level, the short form of the measure would be easier to administer and would be just as applicable in the selection of advertising campaigns.

Our analysis also showed that our measure may be a more valid way of assessing creativity than directly asking viewers to judge creativity. Direct single-item measures of creativity appear to rely mostly on one dimension of creativity: originality/novelty. In our view originality and creativity are not synonymous. As the literature and

our analysis demonstrated, originality is only one aspect of creativity, albeit an important one, and our multi-dimensional measure seemed to capture a number of other relevant aspects of creativity.

While our study provided some good initial results, additional studies are required to confirm the measure's psychometric properties. For example, our conclusions are limited since all our measures of constructs employed paper and pencil methods, rather than highly different methods such as ideally required by the MTMM approach. Furthermore, we based our selection of items for the shortened measure on data from only one sample of respondent. Consequently, it is important to investigate whether these findings replicate across other samples.

In sum, the ability to measure advertising creativity is important since it enables advertisers to investigate viewer's reactions (e.g. memory, attitude towards ad, brand, and purchase) to ads which differ in their level of creativity. In turn, this allows for an assessment of the importance of creativity in advertising campaigns. For too long creativity has been seen as a concept that everybody intuitively understands, yet one which defies clear definition. We attempted to shed some light on the construct by undertaking a preliminary step toward developing a definition and measure of the creativity of an advertisement. We hope this will encourage others to follow.

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A Multiphase Thought Elicitation Coding Scheme for Cognitive Response Analysis

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This paper proposes a four-phase thought elicitation coding scheme for use in cognitive response analysis as frequently used in the investigation of cognitive structure. The coding scheme, derived from recent multidimensional coding developments in the cognitive response literature, simplifies the dimensionality of past work to yield codes which can be aggregated to yield complex indicators of cognitive structure constructs. Comparative analysis across dimensions reveals associative links in the pattern of thinking during cognitive processing. Codes are applied to experimental data to illustrate an application to an extant structural equation model of cognitive structure.

INTRODUCTION

The richness of the full content of a person's thoughts while processing product information is never completely captured in measures employed in experimental design. The more structured the measures, the more directed the responses and the greater the chance for content bias. In some designs, therefore, it may be preferable to use less structured measures to capture as much of the content of thoughts as possible, then to refine the measure by detailed coding of thoughts. Of course, less structured measures such as thought elicitation tasks are not without the potential for bias due to factors such as task- rather than stimulus-based elaboration or demand effects; nevertheless they would seem to be preferable in situations requiring detailed cognitive structure or process information.

A difficulty in developing coding schemes is that a large number of categories may be required. The greater the number of possible coding categories, the lower the inter-judge reliability in coding thoughts is likely to be. Multi-phase coding schemes designed to capture multiple dimensions, and thus eliminate the need to use a large number of categories within a single dimension, are beginning to appear in both the cognitive process (e.g., Brucks, Armstrong and Goldberg 1988; Dickson and Sauer 1987) and choice protocol (Park, Iyer and Smith 1989) literatures. The purpose of this research is to suggest a coding scheme for cognitive processes based on the dimensions proposed by Dickson and Sauer (1987) and developed further by Brucks, et. al. (1988).

The cognitive process approach involves collecting cognitive responses in a thought elicitation task. Both Brucks et al. (1988) and Dickson and Sauer (1987) have proposed separate sets of codes for various dimensions of the cognitive process including: counter and support arguments in cognitive responses (Wright 1973; Batra and Ray 1983); cognitive structure (Fishbein and Ajzen 1975; Ostrom 1969); target, origin and polarity of thoughts (Cacioppo, Harkins and Petty 1981); and, relevance of

thoughts (Brucks et al. 1988). We refine the coding scheme of Dickson and Sauer (1987) to conform more closely to that proposed by Brucks et al. (1988) and demonstrate how it can be applied to a cognitive process model of the form proposed by McKenzie, Lutz and Belch (1986) to capture ad versus brand effects.

TARGET AND CODING

A thought elicitation is defined here as any open-ended, unconstrained (but potentially directed) response task in which subjects record thoughts generated while processing treatment information. Thought elicitations are frequently used in marketing to capture cognitive responses to treatment variables such as advertisements in cognitive process analysis.

A distinction should also be made with respect to the timing of elicited thoughts. If responses are recorded *during* a subject's exposure to treatment in thought elicitation tasks, the task is *concurrent*. If responses are recorded *after* the treatment, the task is *retrospective* (Ericsson and Simon 1984).

Two aspects of experimental designs using thought elicitations include the targeting of thoughts and the coding of the thoughts elicited. An undirected task may require subjects to list all thoughts generated at the time of exposure to a treatment stimulus, without reference to a specific focus or "target", leaving the researcher with the task of categorizing thought targets. A thorough coding scheme when applied to thoughts elicited in this way should reveal any such targeting of thoughts. Alternatively, a target, such as the brand being advertised, may be designated by the researcher as a specific focus of thinking for each subject prior to the thought elicitation task.

The target of the thought elicitation is an important component of the wording of thought elicitation task instructions to subjects. The target may influence both the net valences and strength of responses with respect to various targets such as brands, products and advertisements. Little is known about the effects of manipulating the target in thought elicitation tasks, as more attention has been paid in the past to developing elicitation coding schemes than to manipulation of targets in task instructions.

Coding schemes applied to elicited thoughts represent thoughts as measures of cognitive responses which have been shown to influence the cognitive structure of subjects (McKenzie, Lutz and Belch 1986). As such, their usefulness is constrained by the extent to which they can, in a reasonably comprehensive and accurate manner, reveal the relevant dimensions underlying cognitive structure. Criticism has been made of the possible confounding when valence is a primary coding criterion (Droge 1989). A similar

argument may be made in situations where dimensionality is not explicitly captured in the coding scheme. The McKenzie, Lutz and Belch (1986) study, for example, used the simple counter and support argument coding system introduced by Wright (1973). Batra and Ray (1983; 1986) improved this scheme by expanding the number of categories used by judges to code thoughts. Perhaps the most extensive single-dimension coding scheme has been developed by Bettman and Park (1980) for use in choice protocols. A problem with the Bettman and Park scheme is that the judging task may be difficult to apply because of the large number of codes in only one dimension. Park, Iyer and Smith (1989) deal with this in choice modeling by proposing a multi-dimensional coding scheme. Similar multi-dimensional coding schemes are being developed which apply to issues unique to the study of cognitive processes (e.g., Brucks et al. 1988; Chattopadhyay and Alba 1988; Dickson and Sauer 1987; Hastak and Olson 1989; Johnson 1989; Keller 1991). The use of multi-dimensional or multi-phase formats helps to improve judging accuracy and increase inter-judge reliability.

Development of multi-dimensional cognitive response or thought elicitation codes often flows from the theoretical purpose of the research being conducted. Ideally each dimension should exclusively represent a unitary, unambiguous construct free from any potential confounds with concepts tapped by other dimensions (i.e., a lowest common denominator) and should not include codes which overlap codes in other dimensions. Such overlap may only increase confusion in judging and reduce inter-judge reliability.

In cognitive response research, dimensions which have been used or proposed include focus or target, valence or polarity, level of abstraction, origin, saliency, emotionality, and relevance. Keller (1991) proposes and Chattopadhyay and Alba (1988) specify the level of abstraction as including four codes for classification: (1) factual details; (2) single-fact interpretations; (3) abstractions; and (4) global abstractions. Chattopadhyay and Alba (1989) find that their four-code scheme captures variation in dependent measures which the simpler counter-support argument scheme of Wright (1973) does not. More categories of codes will obviously capture a greater and greater amount of variance. Parsimony considerations, however, dictate that reason be used to limit the number of categories. The most extensive schemes for coding cognitive responses in the form of thought elicitation for cognitive process analysis are offered by Brucks et al. (1988) and Dickson and Sauer (1987).

Cacioppo, et. al. (1981) suggest three dimensions to capture cognitive responses - polarity, target, and origin. Brucks et al. (1988) further develop this by adding relevance (to the product class) as a screening code designed to eliminate non-product directed thoughts which add to unexplained variance. In the application of their codes, Brucks et al. (1989) elect to aggregate coded responses into fewer categories in performing analysis. The ability to perform such an aggregation is a desirable feature of a

well-developed baseline coding scheme. Brucks et al.'s (1988) categories and subcategories are shown in Table 1. Brucks et al. (1988) apply their coding scheme to a model of children's uses of cognitive defenses. In this application, high levels of inter-judge reliability are achieved, ranging from 77% for the target group to 95% for the relevance group.

While this coding scheme is superior to previous attempts, it does not achieve a lowest common denominator of dimensionality. This is obvious with respect to two sets of codes. First, both beliefs and feelings are aggregated into one code in the target dimension for product, product class, and advertisement. Second, references to self are contained in the general category for target when a separate dimension for self may be prove useful. Such coding does not harm the outcome of the Brucks et al. (1988) study because aggregation across codes is used to form coded categories for analysis.

An alternative coding scheme proposed by Dickson and Sauer (1987) develops dimensions from cognitive theories, thereby attempting to reveal not only constructs or targets, but also links between these constructs. These links may be captured, it is argued, in the organizational thoughts expressed in the elicitation. A coding scheme sensitive to these organizational thoughts is needed to measure them. Three theories are used in developing this scheme: (1) the theory-based tripartite coding scheme (Ostrom 1969); (2) the attitude theory of Fishbein and Ajzen (1975) expressed as a means-end model of attitude (Rosenberg 1956; McGuire 1969); and, (3) involvement/centrality theory of self (Markus 1980; Rogers, Kuiper and Kirker 1976). The resulting coding scheme is shown in Table 2.

The most striking difference in this coding scheme compared to other schemes is found in the codes for phase 3 where links between single entities such as products and benefits are assigned a unique set of codes. Nevertheless this may be counterproductive as it results in duplication of categories across codes in different phases and therefore makes meaningful aggregation of the type employed by Brucks, et. al. (1988), Keller (1991) and others difficult to accomplish. Another problem is that in phase 1 the lowest common denominator principle is not applied. This is why attribute and affective reaction, for example, are duplicated for each of product, brand, and advertisement. Similarly, product, brand and ad are duplicated in phases 1 and 2. This duplication stems from the motivation to achieve a set of codes which derive directly from existing theory. While it is important to be sensitive to theory in developing codes, it may be counterproductive to allow theory to dictate codes for a single phase.

As long as all dimensions incorporated in a theory are captured in a series of coding schemes which apply the principle of lowest common denominator to each base dimension, the theory can be tested using responses aggregated across appropriate codes.

TABLE 1
Brucks et al.(1988) Cognitive Response Coding Scheme

1. Relevance
 - a. Relevant: Connected to ad or product class
 - b. Irrelevant: Not connected to product or ad
 - c. Monitoring: Product/ad not appropriate for self
2. Target
 - a. Product: Belief and feelings
 - b. Product Class: Belief and feelings
 - c. Advertisement: Beliefs and Feelings
 - d. Ad Communicators: Thoughts about actors or voices
 - e. Product/ad combo: Target not distinguishable
 - f. Self: Thoughts about self
 - g. Other people: Thoughts about
 - g. Advertising in General: Thoughts
 - h. Other: Not classified above
3. Origin
 - a. Message-oriented: No Prior Knowledge
 - b. Modified message-oriented: Ad memory + prior knowledge
 - c. Recipient-generated cognitive: prior knowledge
 - d. Recipient-generated emotional: express affect
4. Polarity
 - a. Positive
 - b. Negative
 - c. Neutral

Source: Brucks et al. (1988)

A TEST OF THE DICKSON-SAUER CODING SCHEME

Brucks et al. (1988) have successfully applied their coding scheme to thought elicitation in a cognitive response study. No similar attempt was made to apply the Dickson-Sauer coding scheme. To evaluate the Dickson-Sauer scheme we asked two judges to code thoughts elicited during an experiment involving exposure to an advertisement. In the experiment approximately 90 students enrolled in undergraduate and graduate (master level) marketing courses volunteered as subjects. Ad exposure involved projecting a slide image onto a large screen at the front of the room as well as placing a black and white copy of the ad in the task booklets. The ad in the booklets enabled subjects to read all of the ad message clearly, while the projected ad was designed to create the overall copy effect desired by the ad creator. After exposure to the ad subjects were instructed to write down in the booklets provided all thoughts they had while reading it.

Two independent judges separately coded the thought elicitation responses using the codes in Table 2. Response content and volume revealed conscientious and in-depth responses by subjects. The level of inter-judge agreement, however, was extremely low (less than 40%). This occurred in spite of the fact that the judging task was subdivided into three phases to simplify it. Each phase with subdivisions had been intended to provide judges with a mutually exclusive and exhaustive set of

subdimension categories within each primary dimension. Such was not the case.

A comparative analysis of thought unit by thought unit coding revealed definitional ambiguity with a high lack of non-exhaustiveness, particularly along the second dimension of involvement/centrality. Thought unit divisions were determined by one judge and confirmed by the other. Each thought unit contained one and only one item of thought or information. It usually was a sentence or a part of a sentence linked to another part by a conjunction, a comma, or a semicolon. Thus inter-judge correlation should not be affected by double content thought units. The Dickson-Sauer coding scheme was not considered for further testing because of the confounding nature of the codes. To attempt to apply a coding scheme with such a low level of inter-judge reliability to a model of construct relationships, such as an attitude model, ignores the basic issue of measurement quality. In this case it would be misleading to apply measures to a model and to report model results.

REVISED CODING SCHEME

Revised coding categories were developed in an attempt to ensure mutually exclusive and exhaustive subdivisions within lowest common denominator dimensions, while still attending to the theoretical richness intended. The resulting phases of coding with subdimension categories are shown in Table 3. This coding scheme eliminates confounding in the Dickson-Sauer codes while remaining attentive to the

TABLE 2
Dickson-Sauer Three Phase Coding Scheme

- Phase 1: Tripartite Theory
1. Product
 - a. Attribute descriptions
 - b. Belief statements
 - c. Affective reactions
 - d. Behavioral intentions
 2. Brand
 - a. Attribute descriptions
 - b. Belief statements
 - c. Affective reactions
 - d. Behavioral intentions
 3. Advertisement
 - a. Attribute descriptions
 - b. Affective reactions
- Phase 2: Involvement/Centrality Theory
1. Product - elaboration personal past use
 2. Brand - elaboration personal past use
 3. Benefit personalized
 4. Usage consequence personalized
- Phase 3: Means-End Theory
1. Product-attribute link
 2. Brand-attribute link
 3. Product-benefit link
 4. Brand-benefit link
 5. Attribute-benefit link
 6. Product-attribute-benefit link
 7. Brand-attribute-benefit link
 8. Attribute-benefit-intention link
 9. Product-attribute-benefit-intention link
 10. Brand-attribute-benefit-intention link

Source: Dickson & Sauer (1987)

desire for a theoretical base for the development of codes. The coding scheme is more similar to the Brucks et al. (1988) scheme, but also improves on some confounding in that coding scheme (e.g., beliefs and feelings). It is better to simplify codes in each dimension and to aggregate across dimensions in capturing more complex response groups.

To illustrate how this coding scheme applies the "lowest common denominator" principle, consider the combinations which can be constructed to arrive at single-category codes proposed by other researchers. The original dimension codes used by Brucks et al. (1988) can be formed by combining the phase 1, 2, and 3 codes in this scheme. Similarly the relevance dimension can be captured by aggregating across phase 2 and 3 coded values. Therefore, none of the richness of the Brucks et al. scheme nor the theoretical motivation of the Dickson-Sauer scheme is sacrificed, except for the coding of links in the Dickson-Sauer

scheme. Links of this type, however, should span several thought units which would each be coded separately. Ideally a separate set of codes could be used to identify links denoting timing sequences of recorded thought units.

To test the new four-phase coding scheme, thoughts elicited from subjects in a second experiment were coded using the codes in Table 3. Subject were again given time to read the ad for a Sony Compact Disk Player, then instructed to list the thoughts they had while reading the ad. There was no difficulty in applying the codes as there had been when using the Dickson-Sauer scheme. The level of inter-judge agreement was approximately 82 percent. Differences between judges were eliminated through discussion moderated by a disinterested third party. In addition, structured measures of attitude and behavioral intention were taken. Results of comparative analysis

TABLE 3
Revised Four-Phase Coding Scheme

Phase 1:	(TYPE) Unidimensional Tripartite Theory (Fishbein-Ajzen 1975)
1.	Expressions of intentions or non-intentions
2.	Expressions of feelings (attitudes) toward product or ad
3.	Expressions of usage consequences
4.	Expressions of beliefs
5.	Expressions of thoughts not in 1 through 4
Phase 2:	TARGET of Thoughts (Cacioppo, Harkins and Petty 1981)
1.	Product
2.	Brand
3.	Advertisement
4.	Other (including self)
Phase 3:	Personal (Self) RELEVANCE of Thought (Markus 1980)
1.	Personalized to self
2.	Personalized to other
3.	Depersonalized - 3rd person
Phase 4:	POLARITY of Thought (Cacioppo, Harkins and Petty 1981)
1.	Positive
2.	Neutral
3.	Negative

across phases for the coding of this judge are presented in the following section.

RESULTS - COMPARATIVE ANALYSIS

The comparative analysis seeks to determine if there was any relationship between the types of thoughts found in one phase of coding and types of thoughts found in another phase of coding. Simple crosstabulations were generated. All relationships in the crosstabulations were tested using the Chi-square statistic and all were found to be highly significant at the 99% level of confidence. In Table 4 the crosstabulation between POLARITY and TARGET is displayed. The pattern of frequencies in cells indicates that brand thoughts tend to be either positive or negative with bias toward the positive. Two out of three thoughts about the ad tend to be negative while thoughts about the product and other (unrelated to brand, product, or ad) thoughts are predominantly neutral.

The crosstabulation between TARGET and TYPE of thought is shown in Table 5. Thoughts expressing intent or affect concern the brand or ad rather than the product. Recall (belief thoughts) are the dominant type for the product and occur at an 8 to 1 ratio for affect thoughts about the brand and a 4 to 1 ratio for affect thoughts about the ad. This implies that on average there are 8 salient brand attributes and 4 salient advertisement attributes which are instrumental in forming attitudes.

Finally, consider the crosstabulation of TARGET by self-RELEVANCE in Table 6. Very few of

any thoughts concerned an "important other" person, reflecting perhaps a relative inconsequentiality of the product relative to social consequences among the student subjects or their "me" generation values. While brand and product thoughts tend to be evenly divided between self and depersonalized, ad-targeted thoughts are oriented toward the self as opposed to depersonalized by a two-to-one ratio.

Though comparative analysis shows how coding dimensions might relate to one another, there is no conclusive evidence to indicate the nature of theoretical structure. Rather, aggregation across dimensions (e.g., McKenzie et al. 1986) reveals the flexibility of this coding scheme. A example of such application is provided in the following section.

COGNITIVE STRUCTURE & PROCESS APPLICATIONS

The theoretical richness of a multiphase coding scheme offers an enhanced ability to detect and empirically validate the processes assumed to underlie cognitive structure models. For example, a large stream of research demonstrates the existence of central and peripheral routes to persuasion (Elaboration Likelihood Model) determined by the level of elaboration (c.f. Petty, Cacioppo and Schumann 1983). But empirical evidence of the actual process of affect transfer (a common explanation of peripherally induced attitude formation) has been elusive. As a demonstration of the multiphase coding scheme's ability to effectively reveal such process information, the data described earlier are submitted to

TABLE 4
TARGET by POLARITY

TARGET	POLARITY		
	Negative	Neutral	Positive
Brand	128	90a	173
Product	10	105	1
Ad	269	77	79
Other	1	27	0

Chi-square = 387.6 df = 6 p = 0.000

TABLE 5
TARGET by TYPE

TARGET	TYPE				
	Intent	Affect	Behavior	Recall	Unrelated
Brand	41	52	2	296	0
Product	8	1	1	105	1
Ad	27	98	0	300	0
Other	0	0	0	27	1

Chi-square = 72.4 df = 12 p = 0.000

TABLE 6
TARGET by Self-RELEVANCE

TARGET	RELEVANCE		
	Self	Important Other	Depersonal
Brand	196	2	193
Product	51	1	64
Ad	282	0	143
Other	3	0	25

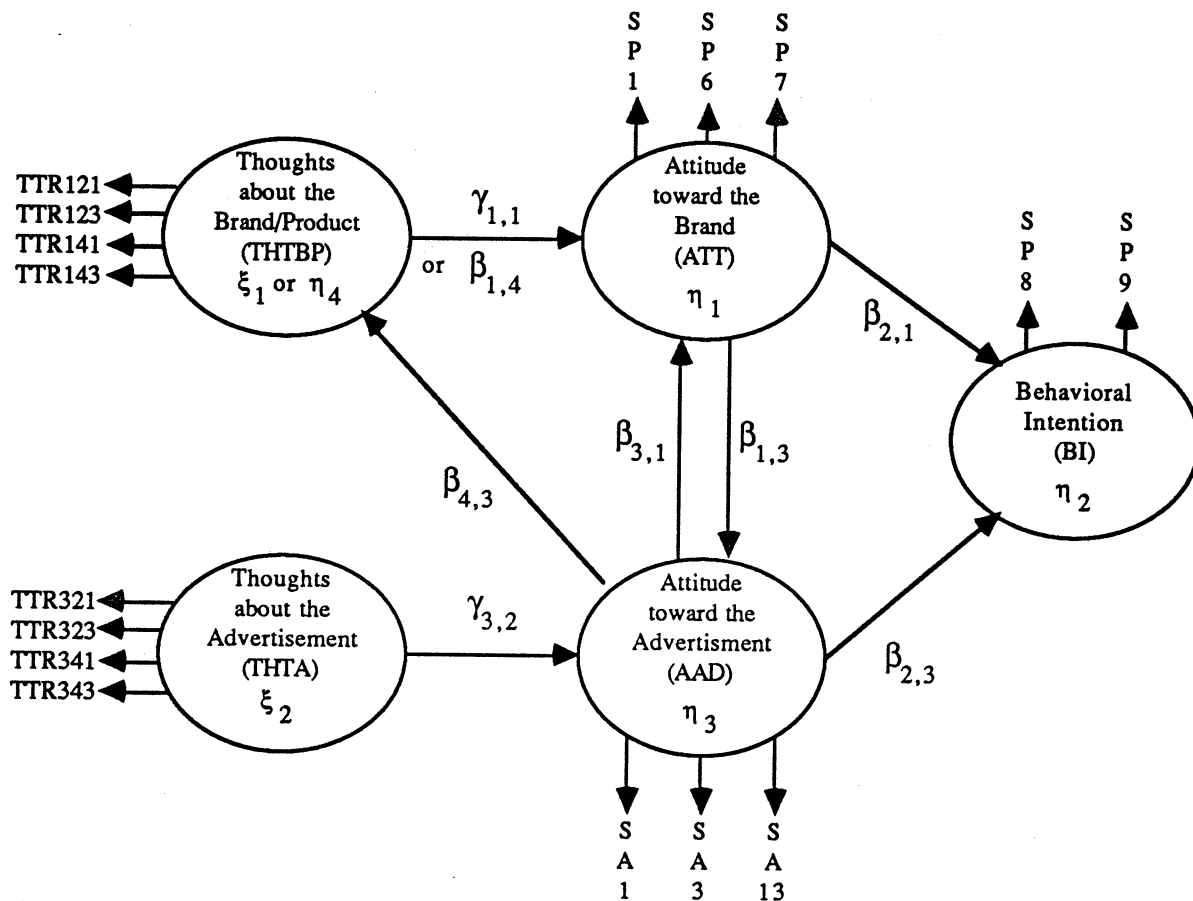
Chi-square = 56.1 df = 6 p = 0.000

a factor structure investigation and applied to a previously published structural equation model of theoretical relevance. We used the codes in Table 3 to develop valence measures of varying specificity. In order for thought elicitation to provide usable cognitive response measures it is necessary to obtain a sufficiently large number of responses in each cell of the coding cross-classification. A set of cross-tabulations was generated for various combinations of the four coding dimensions. Based on these cross-classifications, certain codes were eliminated from use in ELM analysis. Few instrumentality thoughts oriented toward purchasing or using the product (TYPE=3), thoughts of intent toward the product (TYPE=1), or thoughts related to an important other (RELEVANT=2) were generated. By eliminating these categories with low cell counts and by not considering other (TYPE=5), unrelated (TARGET=4) thoughts for the present, the possible combinations were reduced to 12 (TARGET=ad, brand, product; RELEVANT=self, 3rd person; and TYPE=affect, recall). These categories provided the basis for net valence calculations.

To determine the loading patterns of cross-coded valence data, a common factor analysis was run in which an oblique rotation was used to determine factor structure. Results indicate that RELEVANCE and TYPE dominate loading patterns. This implies that perhaps method factors are causing brand and ad thoughts to have common valence patterns within a common TYPE and RELEVANCE category. Valence structures of thoughts are more likely to differ if (a) thoughts relate to self or are depersonalized, but not both; and (b) thoughts are affective or recall facts, but not both. This may explain why the ELM works well. Subjects appear to readily transfer valence from brand to ad and vice versa - an affect transfer phenomenon which can account for attitude change in the absence of message elaboration (i.e., the peripheral route) - but not between self and a 3rd person or between affect and recall.

To further reveal the revised coding scheme's ability to capture detailed structure and process information, we applied it to a test of the alternative causal models developed by McKensie, Lutz and Belch

FIGURE 1
A_{ad} Mediation Models



Model	β Paths Include	χ^2	df	p =	GFI
A	$\beta_{1,3}; \beta_{2,1}$	670.1	99	.000	.723
B	$\beta_{1,3}; \beta_{2,1}; \beta_{4,3}$	145.3	100	.002	.822
C	$\beta_{1,3}; \beta_{2,1}; \beta_{3,1}$	140.4	99	.004	.827
D	$\beta_{2,1}; \beta_{2,3}$	-902.1	99	1.000	.000

*all models include $\gamma_{1,1}$ (or $\beta_{1,4}$) and $\gamma_{3,2}$

(1986) to explain the mediating role of attitude toward the ad. Consistent with their approach, we initially tested models in which only TARGET was used to code thoughts. The LISREL technique was unable to estimate the parameters for any of the tested structural models developed by McKenzie et al. (1986). McKenzie et al. (1986) used three indicators for three dimensions of ad-related cognitive responses in their models. Though they agree that this separation "makes sense," they provide no theoretical or statistical basis for accepting this structure in their measurement model.

An improvement in estimation and fit is possible if thoughts are classified by both TARGET and TYPE. Given the results obtained in the exploratory factor analysis, it makes sense to subdivide thoughts by TYPE to determine more accurately the effect of each TYPE thought on the thought valence construct for each TARGET.

Finally, a third level of coding was added using the RELEVANT code. Model fit can be seen in the Figure. This represents considerable improvement in model fit over models in which we used only two (target and polarity) or three (target plus type plus

polarity) dimensions to generate coded net valence values for the indicator variables. The Figure shows that model C (dual mediation hypothesis) fits best, but that model D (independent influences hypothesis) has statistical problems.

By utilizing all four coding dimensions the measurement component of the ELM structural equation model is able to allocate different weights to each of the indicator variables, and thus improve model fit. The ability of the measurement model to be sensitive to these different dimensions is possible only if a multidimensional coding scheme of the type proposed here is utilized.

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Scales to Measure Social Power in a Consumer Context

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ABSTRACT

Although the concept of social power is frequently used in social science research, its conceptualization is not consistent. Based on a literature review analyzing benefits and drawbacks of two dominant conceptualizations of power, the argument is made that power may be appropriately measured using attributions made by an involved social actor. It is argued that these attributions have an underlying two dimensional factor structure framed by one or more applicable social contexts. These ideas are extended to a retail shopping context to develop scales for measuring consumer power. The resulting scales are shown to (1) be valid, (2) have acceptable levels of reliability, and (3) be supportive of the two dimensional conception of power advanced. Potential applications for using the scales in consumer research and limitations of this study are discussed.

INTRODUCTION

It is widely recognized that exchange theory has been a dominant paradigm in the development of marketing thought (Bagozzi 1975, 1979). As power is a core concept inseparable from the ontology of social exchange theory (Blau 1964), it is clearly an important variable to be considered in the study of behavioral relationships between social actors operating within a marketing system. Dixon and Layton (1972), in discussing the role of power in marketing channel systems, have argued that power relationships are necessarily derived from the interdependencies that must exist between marketing actors if the channel system is to survive, and that these interdependencies are responsible for inducing marketing exchange partners, presumably with inherently conflicting objectives, to engage in cooperative behaviors.

Consistent with this reasoning, many researchers have emphasized the role of social power in marketing channel systems. In fact, much of the work in this area has been reviewed by Gaski (1984) who, through a synthesis of research results, has proposed a theory of power and conflict among distribution channel buyers and sellers. Yet, research emphasizing power relationships between retailers and consumers, the buyers and sellers at the end of many marketing channel systems, is relatively uncommon. And, even when these power relationships are considered, the focus is typically on the retailer with little, if any, regard paid to power associated with consumers (e.g., see Porter 1974).

Clearly, then, the potential for explaining interpersonal behavior styles of retailer representatives and consumers through exchange theory remains largely unexplored. It follows that use of a well defined conception of power and appropriate instruments to measure the power construct will be essential to this work. Unfortunately, however, there seems to be little consensus regarding the

conceptualization of power and its measurement, a situation that has been lamented by many (e.g., see Cartwright 1959; Pahng 1989), and published scales to measure the social power commanded by consumers appear to be absent from the literature.

TOWARD A THEORETICAL CONCEPTION OF POWER

Definition and Elaboration

Although power has been defined inconsistently, two general approaches to its conceptualization seem to be dominant. These may be referred to as the "power as a resource" and "power as an attribution" perspectives.

Perhaps the more common of these is the power as a resource perspective. Proponents of this view include Dahl (1957), French and Raven (1959), Rollins and Bahr (1976), and Tawney (1931), among others. In this view, power is conceived as an inherent characteristic or quality possessed by a social actor, a definite potential or capacity which may be used to influence or even control the behavior of others in some manner within some context.

Pahng (1989, p. 74) has noted that this conceptualization of power has been attacked in the literature, often quite strongly, being "... criticized as ambiguous, unscientific, and unmeasurable." Cross (1969), one of the more outspoken critics, has provided a particularly clear presentation of the crux of the case against the resource conception. He noted that the measurement of power as a resource relies upon the description of outcome events occurring between social actors. That is, an amount of power is associated with a social actor because the behavior of another is observed to be consistent with the first actor's wishes rather than his or her own. When such measures are then used as predictors of behavior, as is typical in empirical studies involving the power construct, an intolerable dilemma is created; if power is to be attributed in terms of behavioral outcomes and then used to predict behavioral outcomes, what results is tautology.

An additional problem of the conceptualization of power as a characteristic of an actor is that it may stand independent of the crucial idea that power arises as the consequence of dependency. This point has been emphasized by Thibaut and Kelley (1959, p. 124) who have noted that "an individual's power over another derives from the latter's being dependent upon him." Furthermore, Emerson (1962) has observed that power is specific and peculiar to social actor dyads, even when social groups are considered, since it is not uncommon for one individual to act dominantly toward a second party but subserviently toward a third who may act subserviently to the second. When power is viewed as a resource with definite magnitude or potential strength, such intransitive relationships must be prohibited for they are logically impossible.

Because of these shortcomings, the other conception, power as a perceived or attributed characteristic of a social actor, seems more sound conceptually. Though similar to the power as a resource conception in that it too posits that power is related to interpersonal or social influence, the power as an attribution perspective entails a key difference: it specifically recognizes that power is an aspect of the relationship between social actors, not a characteristic of a social actor. In other words, power perceptions are derived from the deference one shows another because of his or her dependency or reliance upon the other to behave in a desired manner. Hence, people do not possess power; they are empowered by perceptions of the interpersonal dynamics experienced in relationships.

This conception of power is bolstered by the work of selected social psychologists who have been concerned with power measurement. For example, in studying the processes of social influences in groups, Lippitt, Polansky and Rosen (1952) have not only implied that attributed power is real power, but they have further suggested that attributed power is a valid and reliable measure of social power. Additional empirical support for this proposition has been provided by Tagiuri, Bruner and Blake (1958), while conceptual support is apparent in the literature on negotiation processes (Bacharach and Lawler 1981; Pruitt 1981). Furthermore, it is particularly instructive to note that, when measuring power in studies of channel relationships, it has been common practice (e.g., see El-Ansary and Stern 1972; Etgar 1977, 1978; Hunt and Nevin 1974; Lusch and Brown 1982; Wilkinson 1974) to use measures of influence which the survey respondent has attributed to other parties involved in the channel network.

A critical difference between these two power perspectives is the comparative ease with which the power as an attribution is able to account for the role of social contextuality in power measurement. The power as an attribution view clearly presumes that power has a dynamic property. To be sure, power is often volatile and, sometimes, even fleeting since it is subject to readjustments as circumstances change or the context of a relationship evolves. In contrast, the conception of power as a characteristic resource seems inconsistent with power variances of social actors across relationships and time. Indeed, to retain this theoretical view, one must posit that a social actor has a specific power resource for every conceivable social relationship under every conceivable social circumstance. Hence, the power as an attribution conception offers greater potential than the power as a resource view for the development of parsimonious models incorporating the power construct.

Still, the belief that power in relationships is subject to change does not forbid one to posit that power attributions have a tendency toward stability over time, particularly when a relationship is ongoing. After all, if power attributions in a social relationship are the consequences of interpersonal behaviors, then the stability of power attributions should be similar to the stability of interpersonal behavioral patterns exhibited by the parties involved

in the relationship. To suggest stability in power attributions, then, is to rely only upon the idea that people have propensities to exhibit behavioral traits, or personalities, in their interpersonal behaviors. This point, of course, is critical to empirical research concerned with power, for it is only because of its tendency toward temporal stability that power measures useful for studying social relationships may be developed at all.

Consequently, a workable definition of power now may be advanced: power is the *perceived* ability or potential of a social actor to *influence or control* the behavior of another *within a given relationship or context*. Furthermore, it is an outcome of social dependency. It is dependency, not power, that may be viewed as an antecedent condition for predicting behavior. Power, then, can be a useful scientific construct only when it is employed as an indicator for social dependency.

Extending this to a consumer context, a consumer's power over a retailer or its sales agent is derived from the retailer's desire for the use or ownership privileges over the money resources commanded by the consumer. Likewise, a retailer's power over a consumer derives from the consumer's dependency on the retailer as a source of supply of those products and/or services which he or she may desire. As such, the interdependency existing between retail exchange partners leads to their attributed powers with respect to each other.

Furthermore, although much of the ascendancy granted by each party is purely economic in nature, some aspects of this ascendancy are purely social, governed by the institutionalized structure specified by the shopping norms and customs peculiar to the society in which the parties hold membership. Hence, power relationships between retail agents and consumers have multiple contexts, one which is socially instituted in a cultural sense and another which is instituted by the marketing (or economic) system that specifies the rules for exchange transactions.

Dimensionality of the Power Construct

It has become commonplace for researchers to develop operationalized measures of power that posit that power is a five dimensional construct (e.g., see John 1984). This practice would seem to have its roots in the taxonomy of relationships from which social influence may be derived as identified in a landmark essay by French and Raven (1959). According to their taxonomy, there are five bases from which power is derived. These include the ability to reward another ("reward power"), the ability to coerce another ("coercive power"), the occupation of an instituted position ("legitimate power"), the ability to furnish one's expertise to another ("expert power"), and being popular or widely respected so that others wish build associations or connections with you ("referent power").

Nevertheless, use of such a scheme for dimensionalizing and measuring power perceptions seems ill advised. Certainly, the French and Raven taxonomy is useful for understanding the antecedents

of dependency which give rise to power perceptions attributed to social actors. But it is essential to recognize that French and Raven (1959) themselves were careful to state that they have only described the bases from which power perception arise, not the dimensions of power itself.

In fact, a scheme for understanding antecedents is not necessarily appropriate for dimensionalizing a construct for measurement purposes. Among the foundations of test and measurement theory is that indicator measures of underlying constructs must have the property of being essentially unidimensional (Anderson and Gerbing 1988). It is this necessary condition, then, that makes adoption of the French and Raven (1959) taxonomy inappropriate as a framework for power measurement; the five bases of power are clearly not mutually exclusive. Reward power, for example, is not logically necessarily distinct from the other power bases -- say, for example, expert power -- inasmuch as the sharing of expertise by one party may rightly be considered reward influence rather than expert influence by the recipient.

An alternative scheme that seems workable is one based on the idea that the outcome of power is some degree of behavioral or fate control (Thibaut and Kelley 1959). Clearly, a social actor may attempt to control outcomes in only one of two ways. Either one may attempt to exert the influence one perceives he or she has over others, or one may attempt to resist or deflect the efforts of others to use the influence that he or she attributes to them. Hence, from this it follows that, within in any given context, power should be conceptualized as having two dimensions, influence and resistance. Influence Power, then, may be defined as the potential or ability that a social actor *perceives* he or she has, in general and within a given social context, to control the behavior of another. Similarly, Resistance Power is the potential or ability that a social actor *perceives* he or she has, in general and within a given social context, to deflect influence attempts perceived to be made by another. Integrating this dual dimensionality with the idea that power relationships between consumers and retail agents have both socially instituted and marketing system instituted aspects, it follows that it is appropriate to operationalize the consumer power construct as one consisting of four subscales: Social Influence (SI), Social Resistance (SR), Consumer Influence (CI), and Consumer Resistance (CR).

DEVELOPMENT OF CONSUMER POWER SCALES

In developing these four scales, psychological test construction procedures consistent with those outlined by Anastasi (1988) and Jackson (1967) have been followed. The first step was development of specific test item sets for each of the four scales. Second, statistical analyses evaluating the properties of items included in each set were performed to maximize and assess reliabilities of the scales. Finally, correlational analyses of the resulting scale measures with existing, conceptually related scales were undertaken to assess external validity.

Measures

All test items were constructed using a balanced six-point Likert scale ranging from Agree Strongly (1) to Disagree Strongly (6). Items included in the original SI pool were developed to reflect only the hypothesized influence dimension of power within a nonspecific social (i.e., "purely social") orientation. Care was taken to ensure that the wording of these items did not imply any specific social circumstance. In contrast, items included in the CI pool were created to suggest images of the influence dimension of power within a retail purchase setting. The wording of these items was designed to evoke images of buying products or services and dealing with retail salespeople. The items included in the SR and CR pools were developed in similar manners, except that the focus was placed on the hypothesized resistance, rather than influence, dimension of power within these two contexts. Finally, items intended for each pool were subjected to examination by colleagues and subsequently revised in an effort to ensure their face validity. These procedures resulted in the creation of 60 test items -- 19 for SI, 20 for SR, 13 for CI, and 8 for CR.

The measures chosen for use in the validity check analysis were the Powerful Others Control (POC) and Internal Control (IC) subscales of the 24 items measuring Internal-External Fate Control developed by Levenson (1974). Levenson's (1974) instrument includes three 8-item subscales, the third being Chance Control (CC), and represents a refinement to Rotter's (1966) 29-item Internal-External Control scale in that the items use a six-point (continuous) response set rather than the dichotomous Agree-Disagree/Unsure one chosen by Rotter. In addition, Levenson (1974) provided evidence suggesting that locus of control is a three dimensional construct rather than unidimensional, as Rotter (1966) had conceptualized it to be. The locus of control construct, particularly the POC dimension, has often been closely associated with, or even equated to, social dependency (Lachman 1986).

Given this, the nature of correlational results among the SR, CR, SI, CI, POC, and IC scales can be anticipated. As its name implies, the POC subscale is a measure of the influence that one perceives others have over him or her. Consequently, it is expected that this measure would be strongly associated with measures of one's perceptions regarding one's ability to resist influence attempts by others (e.g., the SR and CR scales) and weakly associated with measures of one's perceptions about one's ability to influence others (e.g., the SI and CI scales). Reasoning in a similar fashion, since the IC scale is intended to measure one's perceived ability to influence or direct one's own behavior, it should be more strongly related to the SI and CI than the SR and CR scales. Hence, empirical results consistent with these expectations would provide evidence of discriminatory and convergent validity of the SR, SI, CR, and CI scales.

TABLE 1
Characteristics of Respondents

	<u>Total</u>		<u>Total</u>
<u>Gender</u>		<u>Annual Household Income</u>	
Male.....	48.9%	Under \$15,000.....	6.5%
Female.....	51.1	\$15,000 to under \$25,000.....	7.1
<u>Age (years)</u>		\$25,000 to under \$35,000.....	13.6
19 to 24.....	37.5%	\$35,000 to under \$50,000.....	19.6
25 to 34.....	23.9	\$50,000 to under \$75,000.....	17.4
35 to 49.....	16.8	\$75,000 to under \$100,000.....	13.0
50 to 64.....	10.9	\$100,000 or more.....	16.3
65 to 83.....	9.8	Refused.....	6.5
Refused.....	1.1	<u>Race/Ethnicity</u>	
<u>Education</u>		Black.....	6.0%
High school graduate.....	12.5%	White.....	87.0
1 to 3 years of college.....	35.9	Asian.....	2.7
4 year college graduate.....	21.7	Hispanic.....	1.1
Graduate degree.....	28.8	Other/refused.....	3.2
N=	(184)		(184)

Sample

Because of the preliminary nature of scale development work, respondent selection and recruitment relied upon convenience sampling techniques. First, the cooperation of 88 undergraduate and graduate students enrolled in the business and education schools of a major northeastern university was enlisted. Second, an additional 96 community dwelling adults were recruited to participate using a snowballing method. Selected characteristics of the total sample of 184 respondents are reported in Table 1.

Analyses and Results

The analyses began with an exploratory factor analysis having two purposes, to confirm the hypothesized dual dimensionality of power and to eliminate items that failed to reflect only a single power dimension. To do this, the item pools associated with each social context were combined, and separate exploratory analyses were run for the purely social and consumer item pools. Specifically, the CI and CR items were combined to form a pool totaling 21 items, and SI and SR items were combined to form a pool of 39 items.

In both analyses, results of the scree test and forced factor trials suggested the presence of two factors. For the consumer items pool analysis using a two factor solution with a varimax (orthogonal) rotation, 17 of the 21 items loaded primarily on one factor and, in all of these cases, the pattern was consistent with the hypothesized influence and resistance dimensions. Likewise, for the social items pool analysis, 26 of the 39 items loaded primarily on one factor and again, among these, the hypothesized pattern was observed. Those items not loading clearly

on a single underlying factor were eliminated from further analysis to ensure unidimensionality of each scale, and the items corresponding to the influence and resistance dimensions were again separated for further analysis. This procedure and its corresponding results, like the earlier item drafting and revision process, provide strong evidence of the substantive validity of four distinct scales, each representing one of two power dimensions in one of two social contexts.

Further reductions in the number of items included in each scale were managed by computing corrected item-total correlations and eliminating those items with insignificant correlations, a procedure recommended when item and total score measures are both continuous (Norusis 1988). Each scale was reduced by removing the item with the smallest correlation coefficient in an iterative manner until all items exhibited corrected item-total correlations of .30 or greater. Because this criterion is four times the correlation standard error and it is standard practice to accept all items exhibiting a corrected item-total correlation greater than twice this standard error (Crocker and Algina 1986), the degrees of interitem consistency for each scale have been nearly maximized without risking wholesale eliminations of items.

These procedures resulted in the creation of a six item CI scale, an eight item instrument for CR, an eleven item scale for SI, and a five item instrument for SR. Computed values of Cronbach's alpha were .66 for CI, .75 for CR, .87 for SI, and .62 for SR. Although the reliabilities of the CI and SR scales are somewhat low, each scale has the desirable characteristic of only including items with relatively large standard deviations. Jackson (1967) has noted scales

TABLE 2
Correlations Between Scales

	CR	CI	SR	SI	POC	IC
CR	—	.000d	.000h	.000e	.000f	.000d
CI	.2486	—	.000e	.000b	.478b	.001a
SR	.5280	.2886	—	.000f	.000g	.000d
SI	.2778	.5553	.3568	—	.040c	.000a
POC	.3369	-.0042	.3078	.1326	—	.013c
IC	.2721	.2442	.2788	.3429	.1671	—

Note: Pearson correlation coefficients are reported in the lower triangle, while probabilities and sample sizes associated with these coefficients appear in the upper triangle. Sample sizes are denoted as follows: a = 174; b = 175; c = 176; d = 177; e = 178; f = 179; g = 180; and h = 181.

incorporating items featuring wide variances are desirable because the observed reliabilities are not a consequence of the inability of the items to indicate good separation among subjects. Consequently, these two scales would seem to offer relatively high discriminatory power. The items included in the final versions of each scale, along with selected reliability statistics, appear in the Appendix.

Finally, external validity of each scale was examined in order to confirm that the scales measure what they are intended to measure. Convergent and discriminant validity was assessed by computing correlational results of all scale measures with each other and with the POC and IC subscales. Table 2 shows these results.

The relatively high positive correlations observed between the CR and SR scales ($r = .53$) and the CI and SI ($r = .56$) support the contention that these scale pairs measure the resistance and influence dimensions of power, respectively. Furthermore, in keeping with the weak positive relationship observed between POC and IC ($r = .17$), considerably weaker relationships between all pairs of resistance/influence scales (SR-CI, $r = .29$; CR-SI, $r = .28$; SR-SI, $r = .36$; CR-CI, $r = .25$) were observed as well.

In addition, both influence scales were positively correlated with the IC scale (CI, $r = .24$; SI, $r = .34$). It is also noteworthy that the relationship between the IC and SI scales was found to be stronger than that between the IC and CI scales; this too was to be expected in that the IC scale is a measure of social, rather than consumer, influence. Furthermore, little or no relationship was to be expected between the POC and the SI and CI scales because the correlation between POC and IC is weak ($r = .17$). Once again, the results were supportive (POC-CI, $r = -.004$; POC-SI, $r = .13$). In summary, then, these observations all lend support to claims of convergent and discriminant validity of the four power scales developed.

DISCUSSION

Research Applications

The results of this study support two important ideas about social power. First is that power is measurable when it is conceptualized as an attributed, as opposed to an inherent, characteristic of a social actor. Second is that, within any given social context, power may be viewed as consisting of two underlying dimensions, which might be labeled "influence" and "resistance".

Furthermore, it has been argued that power is an attributed outcome deriving from a social actor's dependency on another within a specific context or social situation. Specifically, it is dependency, not power, that has been posited to influence interpersonal behavior. This conceptual orientation, in combination with the present empirical results indicating adequate scale reliabilities and external validity, suggests that the power scales developed here may be useful for operationalizing the power construct in analyses of latent variable models of consumer interpersonal behavior.

Although one or more measures of locus of control (e.g., Levenson 1974; Rotter 1966) may be used to operationalize social dependency, such measures are general in nature and lack a contextual sensitivity. The General Systems Theory paradigm (e.g., see Berrien 1968; Miller 1955; von Bertalanffy 1968) reminds us of the importance of accounting for environmental influences and contextuality in the construction of theory; hence, it is proper that models of consumer behavior employ measures that reflect the influences of the social circumstances peculiar to the shopping and consumption planning experience. The scales developed here offer the opportunity to incorporate measures of power for use as a context sensitive indicator of a consumer's social dependency within a retail shopping environment and, in this respect, they represent an important addition to the social scientist's model building tool box.

APPENDIX

Note: Items eliminated in the analyses are available from the author.

CONSUMER POWER ITEMS

	Item Mean	Item S.D.	Corrected Item-Total Correlation
Consumer Influence (N = 178, $\alpha = .66$)			
I hate haggling with a merchant.	2.90	1.63	.3906
When I shop, I generally get salespeople to wait on me hand and foot. (R)	2.53	1.40	.4719
Salespeople who wait on me had better listen to me if they want my business! (R)	4.18	1.41	.3304
When I go shopping, it seems like salespeople will do almost anything for me in hopes of making the sale. (R)	3.35	1.38	.4394
Merchants often seem as if they could care less about having my business.	4.10	1.30	.3119
When buying a car, I know how to negotiate a favorable price. (R)	3.72	1.54	.3935
Consumer Resistance (N = 181, $\alpha = .75$)			
It often seems like salespeople know that I'm a real push-over.	4.75	1.19	.4423
I generally believe whatever a salesperson tells me about a product in which I'm interested.	4.40	1.39	.4511
I can honestly say that it's been ages since I've let a salesperson manipulate me into buying something I didn't really want. (R)	4.90	1.30	.4007
Salespeople have little ability to persuade me. (R)	4.30	1.25	.4600
I often feel that, as a consumer, I am a pawn of big business.	4.17	1.41	.3829
When a merchandiser and I don't agree about something, I'm usually the one who ends up giving in.	4.95	1.13	.4406
Sometimes I feel that a good salesperson could sell me the Brooklyn Bridge.	5.35	1.19	.4986
When I ask for help in choosing a product, I usually end up buying whatever the salesperson suggests.	4.51	1.26	.4836

SOCIAL POWER ITEMS

Social Influence (N = 179, $\alpha = .87$)

I know how to talk a good game. (R)	4.39	1.35	.4682
Because of my way with people, I have been able to accomplish things that many others cannot. (R)	4.21	1.39	.4694
It just seems like I'm a natural leader. (R)	4.04	1.34	.7406
When in a group, I frequently find that I assume a leadership role. (R)	4.13	1.36	.7903
I almost always make a good impression on people I meet. (R)	4.90	.94	.3982
People usually comply with my wishes when I make requests of them. (R)	4.52	.96	.4293
I can usually convince people to see things my way. (R)	4.48	.98	.5812
I rarely seem to be able to influence the behavior of others.	4.41	1.21	.4549
When with others, I generally prefer to assume a leadership role. (R)	4.08	1.27	.7006
Quite often, I find I am able to convince others to do something that I know they would rather not do. (R)	3.49	1.27	.5254
People often look to me for leadership. (R)	4.31	1.24	.7179

(R): Reverse scored item.

APPENDIX (CONTINUED)

Note: Items eliminated in the analyses are available from the author.

	Item Mean	Item S.D.	Corrected Item-Total Correlation
Social Resistance (N = 184, $\alpha = .62$)			
I almost always do whatever I'm told.	4.16	1.44	.3276
Unless I really want to, I rarely do what people ask me to do. (R)	3.37	1.46	.3311
I allow people to convince me to do things I am not eager to do more often than I really should.	4.32	1.45	.4546
I find it hard to say no to people.	3.67	1.56	.4259
I often do things I'd rather not just to please others.	4.20	1.44	.3675

(R): Reverse scored item.

Study Limitations

It is essential to recognize that, due to the complexity and breadth of the research issue, the focus of this study was intentionally limited in two respects. First, the focus has been placed on measuring power attributed to the consumer with no consideration of retail agent power. Secondly, scale development efforts have been limited to consumer power perceptions attributed by the consumer. Certainly, the development of measures for power attributed to consumers by retail agents and for power attributed to retail agents by both consumers and retail agents are relevant to interpersonal behavior studies of retail market exchanges. Hence, further scale development efforts to measure these perceptions of retailer-consumer power relationships are to be encouraged in future studies.

The use of convenience sampling is also a limitation of this study. The failures to have obtained a probability sample and to have achieved consistently high levels of internal consistency among all four subscales threaten the generalizability of the findings. In view of the facts that power is an essential concept in the ontology of the exchange paradigm and that exchange is central to marketing behavior theory, further research and scale refinement efforts to improve or extend the present scales seem warranted.

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Insider versus Outsider: Reflections of a Feminist Consumer

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ABSTRACT

Feminist critiques of the social sciences have shown that the perspectives and problems of women have frequently been overlooked or misinterpreted. Although in consumer research the consumer is assumed to be a female, this may be based on outdated stereotypes. This paper uses introspection as a technique to explore some consumption experiences of a feminist.

INTRODUCTION

Many women scholars, including myself, struggle with a tension born from being an insider and an outsider in our respective scholarly disciplines (Westcott 1979). I am a consumer research insider because I am educated and trained in the theories and methods of consumer research. I am a consumer research outsider because I am a female, and the discipline, like other social sciences, is by definition, both masculine and male dominated (Jordanova 1980; Keller 1978). In critically examining the discipline from the outside, I am also intimately familiar with the inside, and thereby oppose myself (Westcott 1979). As a result of such tensions, numerous feminist analyses have emerged that explore ways in which distinctly male perspectives on masculine experiences have shaped the scientific process and products of inquiry, for example, in sociology (Smith 1974); psychology (Sherif 1987); and organizational theory (Calas and Smircich forthcoming).

The purpose of this paper is to explore some of my consumption experiences. At the outset, I must point out that I am not a "normal" consumer since I am a consumer researcher who spends a great deal of time thinking about my own and others' consumption. I am also a feminist. Thus, here too, I struggle with the tensions of being both an insider and an outsider. It stems from my belief that many marketing practices contribute to and/or maintain the lower status of women in our society (Cott 1987; Friedan 1963). In my discussion of consumption, I will elaborate some of the tensions that I experience as a feminist consumer. First, however, it is necessary to provide a backdrop for them with a brief discussion of two key issues, research values and method.

RESEARCH VALUES

The first issue, and one that is fundamental to this endeavor, involves my research values. Although post-positivists freely admit that the research process is not value-neutral (cf. Lincoln and Guba 1985), research based on post-positivism rarely spells out specific motivations. Thus, I begin by being very clear about mine. I am a feminist. Although there are many types of feminism whose ideological commitments vary significantly, from liberal feminism, to radical feminism, to postmodern feminism (cf. Bristor and Fischer 1991b), most feminists would agree on two points. First, they agree that gender is socially constructed and is fundamental

to a person's life experiences (cf. Harding 1986). Thus, although the issue of whether gender differences arise from social factors, or are "hardwired," is unresolved, it is generally agreed that men and women have very different experiences (cf. Daly 1978; Gilligan 1982). This is much more than an academic issue. In a recent legal case, it was recognized that men and women think differently in the same situation (Hayes 1991). Second, feminists agree that our society is patriarchal. As a result, women -- their concerns, experiences and voices -- have been systematically overlooked, discounted and misinterpreted by those in powerful positions in institutions such as business, science and politics. It is because of this that I, and many other feminists, am motivated to study women and women's issues.

There are many potential explanations as to why women have historically been assigned lower status than men. One, which has been written about extensively elsewhere (cf. Harding 1986; Jordanova 1980, Keller 1978), relates to the historical development and practice of science and its influence on other institutions. Briefly, science has contributed to women's status in at least two ways. First, science has historically been closely associated with masculine characteristics and clearly differentiated from feminine characteristics. For example, consider the following word-pairs: hard/soft; rational/emotional; thinking/feeling (Keller 1978); subject/object; quantitative/qualitative; practical/fanciful; factual/symbolic; and reality/fantasy (Belk 1991). In each case, the first term is associated with masculine characteristics and with ideals of science; the second is associated with feminine characteristics and is distinctly differentiated with ideals of science. In Western society, the terms are not equally valued. What is masculine and scientific is valorized; what is feminine and non-scientific is devalued (Keller 1978). Among other unfortunate results, this has led to assumptions and stereotypes concerning women's and men's "natural" characteristics. On this basis, women have been historically excluded from scientific and other public roles, and have not been accorded epistemological status as knowers (Harding 1986).

The second way that science has contributed to women's inferior status is through its hallmark, objectivity, which has perpetuated the myth that scientific knowledge is universal and unbiased. Post-positivist critiques of science (cf. Anderson 1986; Lincoln and Guba 1985; Peter and Olson 1983) have shown convincingly that scientific knowledge is not value-neutral; feminist critiques of science have identified specific ways in which the methods and products of science are gendered (cf. Bristor and Fischer 1991b; Eichler 1988; Harding 1986; Millman and Kanter 1975). As a result of these two factors, what has been assumed to be universal unbiased knowledge produced by an objective science, is actually knowledge about men and men's problems produced by a masculine science.

Based on such conclusions, many feminist scholars are interested in revising and rewriting their discipline's knowledge base in a way that more accurately represents the problems, perspectives, and experiences of women. Such an endeavor is challenging for two reasons. First, many aspects of women's lives may not be as accessible as men's. Historically, as production and consumption were decoupled along with the separation of workplace and home, men assumed roles in the public sphere; women assumed roles in the private sphere (cf. Firat 1991; Gordon and McArthur 1985). Social scientists have generally put greater emphasis on the public than the private, so many aspects of women's lives have been overlooked (Millman and Kanter 1975). Further, the longstanding bias toward the observable in the social sciences has resulted in behavioral research focus -- on the assumption that there is a good fit between consciousness and activity. Especially where women are concerned, this may be problematic as their activities have been very constrained by gender role prescriptions and thus may not fit well with consciousness (Westkott 1979). As Westkott (1979) points out, to ignore women's consciousness is to miss out on the most important area of women's creative expressions of self in a society which denies that freedom of behavior.

The second reason that studying women is a challenging endeavor is that the field is still dominated by a masculine research perspective. This is not to say that all consumer researchers are male, but that historically acceptable scientific methods are gendered. Although this has changed in the last decade, the field has been dominated by quantitative methods which are underwritten by a masculine perspective; qualitative methods which are seen as reflecting various feminine characteristics are not considered legitimate science (Belk 1991). Thus men and women are socialized to practice masculine science (cf. Simeone 1987). This is also not to say that women have been ignored in consumer research. To the contrary, much research has proceeded on the assumption of the consumer as female (Fischer and Bristor 1991). However, Eileen Fischer and I have argued that this assumption is based on outdated stereotypes of gender and gender relations. Therefore, many research questions may not appropriately reflect women's concerns and experiences.

Given these challenges, the task at hand is to learn more about women -- their problems, concerns, experiences, emotions, etc. Also given these challenges, traditional quantitative methods may not be especially effective (Millman and Kanter 1975; Personal Narratives Group 1989). However, in suggesting that more qualitative, post-positivist approaches may be appropriate, feminist scholars rarely claim a distinct feminist method *per se*. Rather they advocate the use of post-positivist methods to better define research problems from the perspective of women's experiences and develop explanations that address the needs and wants of women (as opposed to others such as policy makers, marketers) (Harding 1987). As a *starting* point, introspection seems well suited to the task.

METHOD

It is a rare consumer researcher who does not think about her or his own consumption experiences. Yet we rarely read about them in the academic literature because when the subject and object are inseparable, it is difficult to ignore the emotional and experiential aspects of consumption. The inclusion of emotion in our papers is generally seen as inconsistent with scientific procedure (Holbrook 1990). As various critiques of traditional science have pointed out, objectivity is a masculine characteristic associated with science which emotion is a feminine characteristic (cf. Belk 1991; Harding 1986; Holbrook 1990; Jordanova 1980, Keller 1978). Further, the premium placed on rational, logical activities may help explain why consumer researchers have frequently overlooked emotion and experiential aspects of consumptions as legitimate consumer research topics (Holbrook 1990; Holbrook and Hirschman 1982). The net result is that emotion and the more feminine aspects of human experience are frequently not integrated into the practice or reporting of research. Like Holbrook (1990) and Holbrook and Hirschman (1982), I believe that we need to recapture these dimensions for a more complete understanding of consumption.

To more fully understand consumption, we do need more research on consumption experiences and emotions. Yet because consumer research does have masculine underpinnings (Belk 1991; Bristor and Fischer 1991b; Holbrook 1990), and because women may have very different consumption experiences (cf. Millman and Kanter 1975), traditional research methods may be insufficient when considering women's issues. Other approaches are necessary. One approach is to use of bigender research teams, as was suggested by Janeen Arnold Costa the 1991 Gender and Consumer Behavior Conference. Bigender teams help overcome the fact that male and female researchers may observe and learn very different things about a given phenomenon (cf. Warren 1988). Another approach is to use introspective techniques (Cook and Fonow 1986).

Introspection, or the conscious awareness or self examination of experiences can be used as a technique for examining emotion as a product of individual processing of meaning, as well as socially shared cognitions (Ellis 1991). Thus, Ellis (1991) suggests that introspection is a way to generate interpretive materials for the self and others to better understand lived experiences of emotion. In some cases, introspective techniques provide an opportunity to study unique biographies and life experiences, and to take advantage of situational familiarity (Brown 1991; Reimer 1977) or a complete membership role (Adler and Adler 1987).

Given forementioned difficulties of studying women, female introspection may be a useful way to generate research questions that may be less apparent from a male perspective. As Ellis (1991) notes, who better knows what questions to ask than a social scientist who has had the experiences of interest? On the other hand, introspection has potential liabilities as well. Problems associated with auto-ethnographies

may apply to introspection as well (Hayano 1979). Further, some researchers may be uncomfortable with introspective techniques because the subject and object are, by definition, inseparable. Some may also be opposed to introspection as an end in itself because then there is no attempt to generalize or validate against others' experiences. So little has been written about introspection (see Ellis (1991) for the most comprehensive treatment) that many issues remain to be addressed. My position is that introspection, particularly interactive introspection, where a researcher works back and forth with others to study the emergent experiences of both parties (Ellis 1991), can be a useful *starting point*. However, I see introspection as one component of a research program that is supplemented by other methods which, while still adept at focusing on the more feminine aspects of experience, use larger samples.

WOMEN'S/FEMININE EXPERIENCES

When I was first asked to participate in this special ACR session, I was asked to use introspection to describe my experiences as a feminist consumer, with the added suggestion that if I were going to explore some of the negative aspects, some of the positive aspects would be appreciated as well. After a couple of days of struggling, I finally realized that many of my consumption experiences were in direct conflict with my feminist value system. Further, in talking to other feminists, I've discovered that my feelings and emotions are shared by others. So while I am quite uncomfortable with personal-disclosure and self-introspection, there are two reasons why I see it as a valuable starting point. First, while I do not pretend to speak on behalf of all women, or even all feminists, I have discovered that I am not unique in my reactions to certain marketing activities. Second, since traditional consumer research has largely ignored feminist perspectives and concerns, my introspection as a feminist can be used to suggest research issues for broader investigation. For this paper, I have chosen to focus on two consumption areas: marketing and politics. Concerns about a third consumption area highly relevant to me, consumer research, are described in Bristor and Fischer (1991a; 1991b).

Marketing

Marketing is a pervasive institution in our society. I was so fascinated by it that I chose to study it as my profession. As a feminist, however, I do not like everything that marketers do. In particular, I think many marketing actions are based on a traditional white, middle class, male ideology about gender and appropriate gender roles. This ideology is shared and transparent, as air is to humans and water is to fish. It's only noticeable when one tries to breathe in the other's environment. Likewise, as a feminist, the male ideology is evident because my perspective is so different. Although the ideology has arguably contributed greatly to the notion that in the U.S. one can get "ahead" through individualism and hard work, it may be less true for women than white middle class men (Anderson forthcoming; Faludi 1991; Morrison et

al. 1987). Thus, while from a male perspective, certain actions may be seen as neutral, others may see the same actions as imposing unwanted conditions and constraints. The result is a contribution to and reinforcement of the lower status of certain groups such as women. While I'm not arguing that marketers bear sole responsibility for social conditions, their actions are not a neutral reflection of them either. To show how this might happen in marketing, I will use three illustrations: the beauty industry, advertising, and products marketed to girls.

Beauty Industry: My first example of male ideology is the mega-billion dollar beauty industry. This is the industry that implores women to: keep up with the latest fashions; be thinner; have perfect breasts; apply makeup and other cosmetics; remove body hair and so on. As a feminist, I am caught between my desire to participate and my intellectual recognition that beauty is largely a male social construction. Thus, regardless of the historical context, definitions of beauty are based on male notions, for male use and consumption. Although use of the traditional appeals to women that they should use beauty products to appeal to a man (e.g., "Gentlemen Prefer Hanes") have lessened in favor of more self-indulgent messages, the change is quite superficial. The industry, with a few notable exceptions such as Liz Claiborne, Anita Roddick (The Body Shop), and Estée Lauder, is largely controlled by men. This construction of beauty is closely linked to constructions of femininity and has several potentially negative consequences for women. First, the constructions of beauty are superficial and have little to do with qualities such as morals, ethics and compassion that might make our planet a better place for humanity. Second, women constantly receive the message that we are fundamentally flawed: we are too fat, our breasts are too small, our eyes are too close together, or too far apart, our eyebrows are too unshapely, our complexion is too uneven, and so on. As an example, Maybelline has an advertising campaign for its product line in the October, 1991 issue of *Vogue*. Each ad begins by defining certain beauty standards, for example for eyelashes. Then, they cast doubts on whether a woman could meet the standard naturally. Maybelline, of course, offers the solution. Although such messages convey standards that are unnatural and unrealistic; they are rarely challenged. Thus, when a woman doesn't measure up, it's not the fault of the product or the standard. It's hers.

Third, achieving these beauty standards may have emotional and physical consequences (Chapkis 1986). Too many women suffer low self esteem, negative and distorted body images, and feelings of inferiority that are reinforced by media images of ideal, and usually unnatural, women. Too many products are potentially dangerous because they contain ingredients such as formaldehyde, harmful dyes, and allergens. Too many women suffer from eating disorders such as anorexia and bulimia. Too many women suffer foot and back problems caused by shoes with high heels and/or unnatural shapes (i.e., severely pointed toes). Thousands of women may now

be experiencing serious health problems due to breast implants. To suffer such consequences in the name of beauty seems very sad to me. Yet, it seems easier than to do so than reconstruct notions of beauty.

Fourth, these notions of beauty create a lose-lose situation for me and many women. On the one hand, I stand to lose if I *do* buy into beauty industry rituals. If I wear makeup, polish my nails, and engage in related beauty rituals, I highlight my femininity. But in light of the bipolar gender dichotomies referred to above, the more I feminine and "womanly" I am, the harder it will be to be viewed as a competent researcher and college professor. Further, if I follow current fashion, which currently includes spandex, tight clothing and short skirts, I feel fashionable and attractive, especially since my figure is trim and my muscles highly developed from years of running and aerobics. But since my looks may also be read as provocative, I may receive unwanted attention, such as whistles, stares, and touches from those who seem to view me as an object of public consumption. Worse, I like many women, fear the possibility of violence. And then, if the worst were to happen, I fear that the blame would be placed on me. On the other hand, I also stand to lose if I *don't* buy into beauty industry rituals. It's impossible to avoid the message of advertisers and others telling me that without performing certain beauty rituals, I don't measure up. Further, it might have very real economic and legal consequences. If I refuse to wear makeup, I might risk being fired from certain jobs, as happened to Teresa Fischette at Continental Airlines (Reidy 1991).

In using these examples to show how participating in various beauty rituals creates conflict for me as a feminist, I want to be clear that I am not opposed to beauty, or aesthetics -- for myself, and certainly for others. The tension arises because so many women, including myself, have been socialized to participate in beauty rituals mainly for the gratification of others. Regardless of whether I set my own standards and/or participate solely for my own gratification, others may interpret my actions differently.

Advertising: My second example of male ideology is advertising. Sexism in advertising is an issue that has received critical attention over the last couple of decades. Indeed there has been a great deal of positive response from advertisers. Perhaps, however, in contrast to many others' views, I do not see sexism as a problem that is on the verge of extinction. Certainly, the use of blatantly negative stereotypes of members of certain groups, like women and blacks has diminished dramatically, but much more subtle and unrecognized forms of sexism still exist. These forms include portrayals of men as producers and breadwinners with responsibilities in the public sphere, and of women as mothers and wives, consumers and shoppers, with responsibilities in the private sphere. Men are also portrayed as dominant and aggressive; women as supporting and passive. What's wrong with these images? Several things. First, they contradict the experiences of the many men who participate in household activities and even more women who work both inside and outside the home.

For example, a recent study reported that 19% of men cook meals and 28% grocery shop (*Research Alert* 1991).

The second thing that is wrong with these images is that they reinforce outdated stereotyped of male-female relations where men are the experts, the bosses and the decision makers, while women are the passive and unquestioning followers. As an illustration, over the last several months in the Houston area Volkswagen has been running a couple of radio ads for their Fahrvergnügen campaign. The ads generally start with a woman named Helga singing. Suddenly Helga is aggressively and abruptly cut off by the spokesman who proceeds to provide the substantive product information. When he is done (and of course *he* decides that too), he issues a recall command to Helga. Depending on the version of the ad, it is to finish the music, or move over so he can drive. In other words, the important task of providing product information is clearly men's work; the supporting, accessory roles are clearly women's work. Apparently Helga isn't even competent to drive.

The third thing that is wrong with these images is that advertising appeals targeted to women often contain exploitative stereotypes of women as self sacrificing nurturers and caretakers of their husbands and children. I'm not implying that a caring wife and mother are undesirable roles. But neither are a caring husband and father and there is a dearth of such male advertising images. Such appeals reinforce outdated gender roles by implying that a woman's identity, sense of accomplishment and creative outlets are derived from the private sphere -- her relationship to her husband and children (Friedan 1963). Men, are rarely shown as the key player in domestic scenes; by implication, they are out in the public sphere working and producing an income so their wives will be able to consume. *The Wall Street Journal* (1991) recently reported that Stuart Tobin, who handles most of his family's shopping, household chores, and childcare is boycotting certain advertisers who specifically target "mom". "How do I perceive these commercials? That I'm inadequate and inept at taking care of kids? Not only are they offensive, but they're dumb. They aren't talking to me, when they should be," (pg. B8). Believe me Stuart, I agree with you. Of course if I boycotted all the products of advertisers who portrayed women as inadequate, I'd have a lot more money in the bank! Advertisers need to portray both men and women in much more positive and less stereotypical ways. Wouldn't it be great if more ads portrayed men as caring husbands and fathers (doing something more than displaying laundry ineptitude)? Wouldn't it be great if more ads portrayed women in the public sphere, as competent professionals?

The fourth thing that is wrong with these images is that violence and domination are all too prevalent. It's far more than a feminist issue, but much is directed at women. As one example, Bijan has a three page spread in the October issue of *Vogue* which incorporates several images and symbols of violence. On the first page is a photograph of a women's perfume and a men's cologne bottles linked together by handcuffs. The perfume bottle and cologne bottle

are each shaped like a hollow doughnuts containing perfume. Their caps differ in one important respect however. The cap of the women's bottle has a hole in it which is very suggestive of a vagina. The cap on the men's bottle is round like the tip of a penis, and ridged like a screw. However, for it to fit into the hole in the perfume bottle cap would require force because it is substantially larger. The text extends the theme of domination: "a woman who had all the right moves...and a man who know exactly what he wanted..." This theme is continued on the next two pages. On the next page, a red-lipped and nailed, sultry but lifeless, woman named Nikki is wearing handcuffs. She is holding a card above her large, semi-exposed breasts indicating that she has been arrested by the New York Police Department for wearing Bijan. The text reveals that she is being held with out bail and that her one phone call was to 1-800-99-BIJAN. Is the message that if a woman wears Bijan, she can experience bondage, arrest, etc? Is the message that the not-so-innocent get what they deserve? Are these outcomes supposed to be desirable? To me, they are horrifying.

Products Marketed to Girls: My third example of male ideology involves products aimed at young girls which reinforce the same stereotypes that I have been describing. More than any other example perhaps, these are disheartening because if our society is ever to change, we must change the way we socialize, educate and raise children (Dinnerstein 1976). Previously, Eileen Fischer and I (Bristor and Fischer 1991a) pointed out that Barbie dolls, if enlarged to life size, are estimated to have a 44" bust (McKillop 1990). What kind of message does this send to girls about their own bodies? How does such an image affect the self esteem of a developing girl? Why doesn't Ken have similarly exaggerated sexual organs? We also described Parker House's new game called "Careers for Girls" which included career possibilities such as supermom, fashion designer and college grad. Noticeably absent were any careers reflecting substantial power, leadership, or policy making activities (Ellerbe 1990). College graduate as a *career*? Supermom? Would the game's developers consider superdad to be a suitable career for boys?

Politics

The other area that I wish to discuss with respect to my consumption experiences is politics. Politics may not be the most salient type of consumption, but politicians are nothing if not marketers, and we, willing or unwilling, are consumers. For me, the recent U.S. Senate hearings to confirm Judge Clarence Thomas to the Supreme Court were a very painful example of political consumption. The confirmation process may have had several flaws; my focus is on one particular aspect that further the notion of a male ideology. The hearing process was a graphic example of how women's voices may be discounted if they are different from men's. (I fully recognize that men can also be victims, but will focus on the more common situation of women as victims.) In sexual harassment cases, it is generally problematic when women's experiences, perspectives and feelings

do not mirror men's. Women who do talk about their experiences face several risks. They may not be believed or seen as credible "witnesses" to their own experiences; their complaints may be treated in a joking fashion or trivialized; and their character may be attacked. Being a sexual harassment victim is terrible; the price of being a victim for the second time as a result of complaining, testifying or taking other public actions is enough to consign many women to silence. Unfortunately, this may have the effect of silencing others who would describe their own experiences.

The hearings were especially difficult for me because they revived a lot of recent memories of my own. In a previous job, I experienced sexual harassment over a long period of time. As I began to realize the problem had to do with my sex and gender, I tried to explain the problem to my superiors. My motivation, albeit naive, was that we were all rational, intelligent and educated individuals and that if I just explained the problem and how I felt, they would take steps to stop it. Instead, I was met with denials and suggestions that the problem really did not exist. There usually was an alternative explanation for each incident and it was implied the I was oversensitive, overemotional, but humorless woman. On the few occasions that a problem was acknowledged, I was also told that the people involved weren't going to change, so I would just have to put up with the problem. In my frustration, and to do a sanity check, I began to keep a log of incidents. After a particularly upsetting series of events, I decided to use my own experiences as the basis of an essay that explored the particular form of sexual harassment I was experiencing, the "hostile environment" or "chilly climate" (Bristor 1990). In writing the essay, I examined my data, in a systematic fashion. In spite of my knowledge that the problem was harassment, not my overactive imagination, I was astonished to discover how clear the emergent patterns were. While any one isolated incident had an alternate explanation, as a dataset, there was none. In a sense, my experiences have been validated by the many women who have read my essay and commented that they have had very similar experiences, both as a victim of sexual harassment, and when they have chosen to seek a remedy.

Although the exact nature of sexual harassment differs from woman to woman, Hill's, there are many similarities in the experiences of describing them to those in power. Regardless of the timing, for example I sought remedy as incidents occurred, and Anita Hill was compelled to testify long after the fact, the pattern of reactions was quite similar. Specifically, reported events are strongly denied, even though the loudest voices often have no direct involvement in the alleged incidents. It is thus very difficult for the woman to be believed. In many cases, the only women who *are* believed are the ones who deny that they have experienced harassment, suggesting that if it didn't happen to them, it didn't happen to anyone. The situation can then treated be "democratically" as a vote, and on the basis of majority rule, the victim's complaint "loses". If the victim has not been silenced

by this process, and continues to speak out about her experiences, her character comes under scrutiny and doubts will be cast on her sanity and emotional stability. Yet, similar doubts are rarely raised about the harasser. In my case, this continued to happen even after a substantial legal settlement had been reached: "You have to differentiate between the way she experiences things and the way they might have happened," said one dean in a newspaper article (Bass 1990, pg. C1). "I would say she has a very different perception of those incidents than other(s)," said another. As an example of such an "incident", I frequently experienced certain colleagues touching me without my consent, for example rubbing their hands against my rear end. When I described this as inappropriate conduct to one of my deans, in a conversation witnessed by the sexual harassment advisor, his response was that I was misinterpreting a friendly gesture. A friendly gesture? What a convenient way to appropriate both my body and my feelings of violation!

After experiencing harassment personally, hearing about similar experiences from dozens of other women, and watching Anita Hill's case emerge publicly, I have two conclusions. First, the experiences and voices of women are not given equal value or epistemological status. Second, victims of sexual harassment pay at least twice -- the first time when they go through the experience, and the second time when they attempt to speak the truth -- for whatever reason.

CONCLUSION

This paper has described some ways in which prevailing male ideology that underwrites various marketing actions creates conflict for me as a feminist consumer. In my criticisms of certain actions, I am not suggesting that marketing is a hopeless institution. What I am suggesting is that women's experiences and perspectives should be listened to more carefully. Being different should not be grounds for automatic dismissal or discreditation. From a purely pragmatic standpoint, women have tremendous spending and voting power. Those marketers who better understand the wants and needs of women, although this is not to suggest that women represent a homogeneous group, will have an edge over those who continue to impose old stereotypes and ideals.

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Reflections of a Black Middle-Class Consumer: Caught Between Two Worlds or Getting the Best of Both?

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Consumer behavior studies traditionally have treated Blacks as a homogeneous, monolithic group. However, the Black community, like the white community, has always shown evidence of diversity and stratification. Even during the period of slavery, there were social distinctions among slaves based on where they worked, e.g. in the fields or in the plantation house (Pinkney 1969). However, as noted by several researchers (Robinson and Rao 1986; Reid, Stagmaier, and Reagan 1986; Williams 1989), most consumer behavior studies have concentrated primarily on low-income Blacks, generally women, in urban areas, and often have generalized the results to all Black consumers. Within the next few years, though, it is projected that over half of all Black workers will be middle-class, casting them into critical roles as consumers of goods and services, in addition to becoming the focus of greater research attention.

Both empirical and ethnographic studies have fallen victim to this fallacy of focusing on the low-income Black consumer. For example, one empirical study on perception of television commercials compared children from white middle-class schools and neighborhoods with children from Black inner city schools and neighborhoods to reach conclusions about the differences between Blacks and whites (Donohue, Meyer, and Henke 1978). This obviously was more of a class difference than ethnic group difference. In an ethnographic study the ghetto community was advocated as the setting to pursue research on the effects of ancestry and kinship on consumption practices among Blacks since the researcher argued the ghetto community represents the most typical setting for the Black community (Hirschman 1985).

Another research approach, one that has received little attention but which offers an opportunity to explore the diversity among Black consumers by gaining a more in-depth understanding of how an individual really feels about many of the consumer behavior concepts based on traditional approaches, is introspection. Surprisingly, in spite of a number of studies of Black consumer behavior, we have little idea of how the many consumer behavior concepts become personalized and function within the individual. This paper aims to provide some clues as to this functioning by taking my own experiences in life as a Black middle-class consumer as text and focusing on the consumer behavior process as an internalized cultural product, following McCracken's (1986) model and Gould's (1990) adaptation of it. Although such a technique has been used previously in consumer behavior by Holbrook (1988) and Gould (1991), it is still relatively new. This paper provides a further exploration of the technique.

I will first provide a personal backdrop so the reader will have a better appreciation and understanding of the influence of my background on

my assessment. Then using this personal backdrop, I will provide an introspective analysis of four issues related to Black consumer behavior.

ONE MIDDLE-CLASS BLACK CONSUMER'S VIEW OF THE WORLD

As a child growing up in the world of inner city Philadelphia, I didn't think much about being "Black," let alone about being a Black consumer. Everyone around me was Black -- my classmates, my teachers, my neighbors, the customers in the stores where my parents shopped, and even the employees in the store. Now as an adult I think a lot about being Black. Only in my current world just about everyone is white -- my university colleagues, my students, my neighbors, the customers I encounter in the stores where I shop, and even the employees in the store.

On the one hand this sensitivity as an ethnic minority in a majority culture should be expected. As noted by Royce (1982), minorities in general are more self-consciously aware of themselves as minorities while whites do not tend to think of themselves as distinctly part of a particular ethnic group. On the other hand, based on my experience of attending a predominantly white, prestigious Ivy League school (University of Pennsylvania), being the captain of the track and cross country team composed primarily of white teammates, working ten years for a predominantly white Fortune 500 corporation (General Electric Company), living in predominantly white communities (10 years in Colorado and four years in State College, PA -- both with approximately a 3% Black population), and teaching at a predominantly white university (Penn State University), you would think by now I certainly would have become acculturated and assimilated into mainstream Anglo-European society, and totally comfortable with my role as a middle-class Black in a predominantly white environment.

However, I often wonder if I am caught between two worlds, never being fully accepted in one and having come too far from the other to ever again be fully a part of it. As a middle-class Black consumer, I often reflect on the degree to which I have fallen victim to being caught in a dual identity crisis. As articulated by Woodson (1933) and Cruse (1967), this means trying to be a mainstream American and a Black American, resulting in not being wholly either. This dilemma was expounded on by Park (1931) in his concept of the "marginal man" and DuBois (1907) in his concept of "double consciousness." Both stressed the "twoness" of being an American and being Black and the perpetual conflict between these two social roles.

Although I have not fully resolved that identity crisis, I have rejected the common assumption that there is a decrease in ethnic identity as Blacks move up the socioeconomic ladder to middle-class status, at least as I perceive my ethnic identity. I consider

myself a "multicultural," an ethnic minority living in two worlds, and getting the best of both. According to Frazier (1957), the more middle-class or bourgeois Blacks are, the more they attempt to emulate whites and their value system, and the weaker their ethnic or race commitment becomes. I partially accept the first part of Frazier's hypothesis in my case, i.e. accepting middle-class values. I find nothing wrong in espousing the values of mainstream society, certainly if those values mean wanting to live in an upscale neighborhood, drive a late model automobile, send your children to the best schools, etc. In my view, accepting one set of values does not necessarily mean rejecting another set. A multicultural individual is able to feel comfortable with both mainstream and his/her ethnic values.

In fact, in one study middle-class Black respondents displayed middle-class American values typically associated with whites to a greater degree than the whites in the sample (Ness and Stith 1984). In another study, Williams and Qualls (1989) found evidence that middle-class Blacks who have moved up the socioeconomic ladder are very similar to their Anglo counterparts at the same socioeconomic level, at least in terms of their responses to celebrity advertising.

This reminds me of the consumer response to a recently released movie, "To Sleep with Anger," which tells the story of a middle-class Black family. Yet to the dismay of all those who made the movie, it has typically been performing five times as well in white neighborhoods as in Black neighborhoods (Rohter 1990). Audiences attracted to the film were separated not by ethnicity but by class. The film is appealing mostly to the middle and upper class, both Black and white, not blue collar Blacks or whites. This indicates that at the upper socioeconomic levels there seems to be more similarity than differences in the values espoused by Blacks and whites.

Although I agree that middle-class Blacks and whites may have similar values, I disagree with Frazier's contention that middle-class Blacks have a weaker ethnic identity. In fact, I would say being middle-class and yet still experiencing prejudice and discrimination, despite the socioeconomic status one has achieved, makes one even more sensitive to his/her ethnic identity. For example, two recent news stories drive home this point. A study at Northwestern University on car dealerships found that salespeople who bargain with customers over the price of a new car make significantly lower final offers to white men than to Blacks (Schmidt 1990). Another story dealt with a department store which required its cashiers to note the race of the individual on the back of checks. When I read of such stories dealing with consumer interactions, it makes me more aware that being a member of the Black middle class still does not make me immune to inequalities faced by Black consumers in general. In my case this has led to an even stronger sense of pride and strength of ethnic affiliation. The end result is that I feel I am enjoying the best of two worlds -- 1.) espousing the values and enjoying the benefits of mainstream society as a middle-class consumer, and 2.) espousing the values of

my ethnic group as a Black consumer with strong ethnic affiliation.

This multicultural value system, a combination of mainstream and ethnic values, is exhibited in a number of ways by me and has a direct bearing on my behavior as a middle-class Black consumer. I will now elaborate on four issues related to Black consumer behavior and offer an introspective view which reflects this multicultural value system.

ISSUE #1: SHOULD THE BLACK ENGLISH DIALECT BE USED IN ADVERTISING?

There is a substantial difference in the form, content, and use of language by Blacks and whites (Haskins and Butts 1973). I have noted that one function of this difference is a mechanism for Blacks to signal solidarity with their group by selective use of in-group language, dialect, accent, and vocabulary, e.g. slang expressions, rapping, etc. This need for solidarity stems from the complex historic and sociocultural experience of growing up as members of a unique cultural group and experiencing elements of prejudice and discrimination (Wilcox 1971).

Emphasizing language as a means of solidarity should not be surprising, given the fact that many researchers consider language as the single most important component of ethnic identity (Giles et al. 1976, 1977; Leclezio et al. 1986; Taylor et al. 1973). In fact, research indicates that ethnic group members identify more closely with those who share their language than with those who share their cultural background (Giles, Taylor, and Bourhis 1973).

I have observed that many advertisers employ a strategy of trying to reach Black consumers through advertising language often referred to as the "right-on" school of advertising copy, i.e. injecting Black slang, "hip" expressions, and other elements of the Black English dialect into their ads. While some segments of Black consumers may respond favorably to this "slanguage" approach, I think advertisers should be cautious as they run the risk of turning off other segments (Sobers 1979; *Marketing News* 1984).

In particular, this may be true with middle-class Blacks who represent the most significant segment in terms of purchasing power in the Black community. Although it has been estimated that elements of the Black English dialect are used by 80% of Blacks in America (Dillard 1972), I would expect that there is significant variation in the extent of usage based on social class, gender, age, region, etc. (Payne 1986; Jenkins 1982). As noted by Kochman (1981), I would expect greater usage among Blacks at a lower socioeconomic level than among middle-class Blacks.

However, Smitherman (1984) points out that upscale, middle-class Blacks are also familiar with the language. I would agree since middle-class Blacks, even though they exhibit greater usage of the mainstream English dialect, have had to retain their ability to speak and understand Black English as it continues to be the lingua franca of the Black community and, as mentioned earlier, it is a means of maintaining community solidarity.

My being familiar with Black English and even using it as a common bond of expression with other Blacks does not necessarily mean that I favor its use in advertising copy. Although there are a number of arguments for legitimizing greater usage of Black English in all institutional contexts, including the school system and in advertising (Smitherman 1981; Smitherman and McGinnis 1977), I believe there also are some legitimate reasons to be cautious. For one, there is the danger of perpetuating stereotypes of Blacks and possibly the hindering of socioeconomic mobility by those who are not familiar with the richness and legitimacy of the dialect as a language. For example, Terrell and Terrell (1982) found that Black job hunters who spoke Black English got shorter interviews, fewer job offers, and offers at lower pay than Blacks who spoke standard English.

I am sure that Black English will continue to be used in advertising copy; I also am sure that certain segments of the Black community will find it very acceptable and appealing while others will not. This is further evidence of the diversity within the Black community with which advertisers will have to deal and which consumer researchers will need to study.

ISSUE #2: ARE BLACK MODELS THE ONLY WAY TO REACH BLACK CONSUMERS?

Another strategy used by advertisers to appeal to Black consumers is the use of Black models. This approach takes advantage of the Black cultural script characteristics of collectivism, group affinity, and identification with the collective in-group (Nobles 1980; Boykin 1983). In addition, it reflects in-group bias theory (Brewer 1979; Wilder 1981), which suggests that a member of any group should have a more favorable response to another member of the same group in an advertisement, i.e. whites should respond more favorably to ads with other whites, Asians should respond more favorably to ads with other Asians, etc.

To better understand how I respond to the source effects of other Black human models, I find the conceptual framework outlined by Kelman (1956) useful. Based on his work, credibility, attractiveness, and power are recognized as the three main source characteristics which affect consumers. These three characteristics lead to attitude change via three different psychological modes, namely, internalization, identification, and compliance.

I would consider ethnicity as a source effect falling mainly under the attractiveness domain. Although there are several dimensions of attractiveness (e.g. familiarity, similarity, liking, prestige, and physical attractiveness), I would view ethnicity primarily as falling within the similarity dimension. However, there are two ways in which I can respond to the source effect of a Black model in advertising based on similarity -- either demographic or ideological similarity. As a Black consumer I obviously will respond more favorably to ads with other Blacks (demographic similarity) compared to ads without Blacks. However, as a Black middle-class professional consumer, I also would respond more

favorably to ads with other Black middle-class professional consumers (ideological similarity) compared to ads with Blacks from other socioeconomic segments.

As McGuire (1969) points out, demographic versus ideological similarity poses some interesting issues. For example: Does a white segregationist like better a white integrationist (demographic similarity but ideological dissimilarity) or a Black segregationist (ideological similarity but demographic dissimilarity)? In my case: Do I respond more favorably to a white model in advertising representing ideological similarity (e.g. similar middle-class values) but demographic dissimilarity, or to a Black model representing demographic similarity but ideological dissimilarity (e.g. a young Black inner-city teen "rapping" in a commercial about a product)?

I would contend that in my case the cognitive processing of information contained in advertisements is not as simple as just favoring the ad with someone in it similar to my own ethnic group. Based on cognitive response theory, I should be processing other elements besides the model's ethnicity, e.g. the content of the message. Therefore, even though a particular advertisement may not contain Black human models, I may still view the advertisement positively due to the evaluation of the message or other factors, e.g. product attributes. Sometimes I may spend extensive amounts of time evaluating the message content via the central route to persuasion; at other times, I may give only superficial attention to the message and rely more on other cues via the peripheral route to persuasion (Petty, Cacioppo, and Schumann 1983). In either case, the ethnicity of the model is only one of the factors I use in processing information contained in an advertisement, and in many cases it may not be the most important.

This is not to deny that I respond favorably to advertisements containing Black models compared to advertisements without Black models, all other things being equal. However, there are many other mediating factors affecting my response. I believe this is also true with most other Black consumers; therefore advertisers and researchers should be interested in determining to what extent these other factors account for variation in the response of Black consumers to source effects. Based on my experience, source ethnicity should not be viewed as the all-powerful motivation behind reaching Black consumers, although the use of Black models can be effective in many situations.

ISSUE #3: IS IT "BLACK" OR "AFRICAN AMERICAN" CONSUMERS?

I have been asked on a number of occasions whether the term "Black" or "African American" is the preferred term of usage for this ethnic minority segment. Actually I can remember when I was asked a similar question about the terms "Black" and "Negro" in the 1960's. I suspect in earlier time periods, the question centered on the appropriateness of "Negro" and "Colored."

The easy answer is to call consumers what they feel most comfortable with. However, this approach presents a problem as once again we see evidence of diversity of opinion. For example, Jewell (1985) found that Black students provided eight different responses when asked to identify their race in an open-ended questionnaire. Concerning the most popular contemporary designation, many members of the Black community feel the term "Black" is inappropriate. They cite the common usage of land-based designations for other groups (e.g. Italians, Germans, Mexicans, etc.). Therefore, terms such as "Pan-African" or "African American" are perceived as preferred, more appropriate, and more acceptable to use when referring to members of this ethnic minority group. However, despite increasing use of these terms, most Black Americans still prefer to be called "Black," according to a recent survey by the Joint Center for Political and Economic Studies -- 72 percent preferred "Black" compared to 15 percent who preferred "African American" (Nelson 1991).

I believe that the reason for the continuing acceptance of the term "Black" is that a lot of people feel the same as I do -- the label is not as important as what the label stands for. For example, the most prestigious civil rights organization is called the National Association for the Advancement of "Colored" People (NAACP). Similarly, every year contributions pour in to support Historically Black Colleges as a result of the United "Negro" College Fund (UNCF) telethon. However, I also recognize that while certain terms may be acceptable for organizational labels, consumers may feel uncomfortable when those terms are applied to them individually. I greatly respect the NAACP and UNCF because I know what their organizational labels stand for, but I prefer to be referred to as a "Black" as opposed to a "Negro" consumer.

As noted by Cohen (1978), subjective self-labeling is the only valid measure of ethnicity, since it represents the internal beliefs of the individual and hence reflects the salience and reality of ethnic affiliation. For example, calling a consumer "Canadian" might be the marketer's or researcher's designation while the consumer may prefer the self-identified label of "French Canadian" or "English Canadian." Even subjective self-designation presents problems though. Some members of an ethnic group might define the label differently than the definition assumed by others. For example, the label "Hispanic" is not widely accepted by all persons classified under that umbrella category. Certain individuals may prefer other designations such as Chicano, Latino, Mexican, Cuban, Puerto Rican, Spanish American and Mexican-American, etc. From my experience of living in Colorado with a large Mexican American population and spending a great deal of time in New York with a large Puerto Rican population, I can attest that individuals within these two groups of Hispanics have varying understandings of the various labels. For example, "Chicano" has a more militant and activist connotation for certain "Hispanic" individuals compared to others.

Among Blacks, subjective self-designation of a particular label reflects different attitudes and actually may affect behavior. For example, Jackson and Kirschner (1973), in exploring the relationship between racial self-designation and preference for counselors, found that students who referred to themselves as "Black," or "Afro-American," preferred a Black counselor to a significantly greater degree than those who referred to themselves as "Negro."

I feel quite comfortable with the term "Black." I also realize that there is a sizeable segment which feels offended by the use of the term. What seems to be happening in the Black press is the use of both "Black" and "African American," recognizing the appeal of both terms to different segments of the Black community. (Sometimes both terms are used in the same sentence to refer to this ethnic minority segment; other times the terms are used alternately in sentences or paragraphs). I often attempt to get the best of both worlds by using the term "Black/African American." I would suggest that the most prudent choice for marketers and researchers is the adoption of both terms.

ISSUE #4: WHAT EFFECT DOES THE LACK OF BLACKS IN ADS HAVE ON SELF-ESTEEM?

A recent New York Department of Consumer Affairs study (Rothenberg 1991) charged that although Blacks constitute 11 percent of national magazine readership, only 3 percent of models used in national ads are Black. As a consequence, the study concluded that minorities suffer "psychic harm," i.e. minorities are hurt through damaged self-esteem, reinforcing a sense of segregation in the marketplace.

As a result of the study, New York's Human Rights Commission is investigating if it could sue recalcitrant advertisers under the Civil Rights Act for not including more minorities in advertising. Also, several law suits have been brought under the U.S. Fair Housing Act on the absence of Black models in real estate ads, and recently a federal appeals court ruled that newspapers can be held responsible for running ads which violate the Act (Lambert and Harlan 1991).

I agree there are a lot of societal reasons to see more Blacks in advertising, but I believe the low self-esteem theory is not one of them, or at least it has been overplayed. As noted by Cross (1991), many of the problems concerned with building Black self-esteem are misdirected. He takes on the somewhat sacred cow notion that Black self-hatred is the explanation for Black failure and finds the studies from the 1930's and 1940's severely flawed. (These studies dealt with photographs and line drawings of Black and white children, clowns, and chickens, or choices between Black and white dolls; most of the traditional work on Black self-esteem today can be traced back to these studies).

It seems to me that many today are making the same mistake of linking Black self-esteem to images in the media and assuming that the development of positive self-esteem is somehow dependent on seeing positive images in the media. If this theory were true, I would think that people in my generation who grew

up in an era when Amos 'N' Andy represented Black television, would have very low self-esteem. I don't find that to be the case.

I believe developing positive self-esteem is not as simple as just viewing an advertisement of another Black person or watching a television program which includes Blacks. While those types of exposures no doubt play a role in the development of self-esteem, I don't believe they play a major role. Viewing media images (such as advertisements and television programs) and decoding them to arrive at some meaning is a very complex process. There are multiple meanings I get when interpreting advertisements with other Blacks versus advertisements without Blacks. The ethnicity of the human model is only one media cue which affects my self-esteem, and as noted earlier regarding source effects, for me it is not necessarily a predominant one in many cases.

For example, I may be exposed to certain portrayals in the media which may highlight ethnic behavior which may be perceived as negative and stereotypical. However, I am also exposed to many other actual real-life situations in society, e.g. with my family, friends, co-workers, church members, neighbors, community members, etc. These real-life settings generally are quite different from unrealistic portrayals reflected in the media and hence act to discount those portrayals. A positive role model I encounter in real life, such as my father or other family members, has a much more powerful influence on my self-esteem than something I am exposed to or fail to get exposed to in the media. Therefore, while I am supportive of and applaud efforts to increase the number of minorities in the media, and more importantly to ensure that the portrayals are positive, I do not believe my self-esteem as a Black person hinges on that outcome.

CONCLUSION

I want to emphasize again that these thoughts represent my personal introspective analysis of issues related to Black consumer behavior. They are not meant to reflect the opinions of Blacks in general -- just the opinion of one Black middle-class consumer. But that is precisely the purpose of the introspection technique, to capture a more in-depth understanding by getting inside the mind of the researcher, and listening in, so to speak, as he reflects on his reaction to issues and concepts that affect consumers. As shown by Gould (1991), by using introspection, it becomes possible to make points about one's own consumer behavior experience that have not been otherwise dealt with in previous published studies, as well as to elaborate on other established concepts more deeply and richly.

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Self-Fashioning Oneself Cross-Culturally: Consumption as the Determined and the Determining

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What processes rather than essences are involved in present experiences of cultural identity? What does it mean to write as a Palestinian? As an American? As a Papua-New Guinean? As a European? From what discrete sets of cultural resources does any modern writer construct his or her discourse? To what world audience (and in what language) are these discourses most generally addressed? (Clifford 1988, p. 275-276).

Ethnographic self-fashioning (Clifford 1988) is a process which involves "increased self-consciousness about the fashioning of human identity as a manipulatable, artful process" (Greenblatt 1980, p. 2). In this process, an individual assumes the authority to control and purposely determine his/her own identity. This involves the linking of "cultural artifacts" drawn from discrepant worlds in ways that reflect the individual's own subjective experience (Clifford 1988). There are numerous well-known examples of such self-conscious bridging of cultures, especially in anthropology (e.g. Malinowski) and literature (e.g. Joseph Conrad). Such ethnographic self-fashioning also blends with today's postmodernist pastiche of emerging world cultural themes, made possible by both the mass and also the more segmented communications of the global village which have presented us with a montage of ever shifting and seemingly random images and their amalgams of ever new forms (e.g. world music). It also represents a process by which the self interacts with the extended self (Belk 1988) in the individual's self-determined psychodynamic development and also by which the self can adapt and integrate cross-cultural phenomena, such as occurs when one moves from one culture to another (Mehta and Belk 1991). Such a process situates the extended self in what one takes as one's given culture(s), defines its limits and range of activity, and helps to constitute what we might call one's personalized self-culture (cf. Obeyesekere 1981 on personal-private symbols versus public ones). In very practical or praxis terms (Gould 1991a), consumers can very much take an active role in designing their total consumption experience (akin to self-actualization) by deciding what cultural artifacts to take in or expose themselves to or avoid. They may have very definite goals in this regard (e.g. consumers who want to become more knowledgeable about classical music will attend concerts, read books toward that end, etc.) or they may have more 'goalless goals' defined in terms of 'experience and growth' though they are never certain where these will take them.

Against this backdrop, we as the Caucasian-American, middle class authors of this paper represent two colleagues who discovered that we have had parallel experiences in adapting Asian cultural beliefs and mores into our lives, while retaining our Western residences, livelihoods, and cultural roots. Our

consumption represents blends of the two cultures. We might characterize the process in the following terms: "When we're with Westerners, we feel Asian, but when we are with Asians, we feel Western." This pattern takes strange twists, however, in that many Asians have become so Westernized at least in our eyes that we feel more "Asian" in some respects than many 'real' Asians seem to be. Of course what it means to be Asian or Oriental is really problematic as a form of social construction and for further thought on this, see for example, Said (1978) and Clifford (1988). Here, we are concerned with our own phenomenological perceptions as individual consumers.

Consumption as an aspect of ethnographic self-fashioning plays a role in determining the directions we go as well as representing activities which are determined by the direction we have chosen. In the following, each of us gives an account of his personal self-fashioning experiences and at the end we draw some conclusions, based on these, for future developments in consumer research.

STEVE GOULD

When I was about seventeen, I made a kind of life-determining pledge to myself that I was going to realize as much about the world as possible in both a spiritual and intellectual sense. Needless to say, how I have framed that self-pledge over the last 27 years or so has changed enormously and continues to do so today. Perhaps most seminal in my ultimate life-course was the displacement and dislocation of the Sixties. For those of you who grew up about then, you will quite possibly have shared a similar displacement of our concepts of a 'normal existence' into wild, unknown, disorienting and sometimes frightening worlds involving a generally nomadic existence of disruption, disquiet, 'free love', drugs and self-exploration. My own self-explorations led me not only into these areas but also into such things as hypnosis, meditation and Eastern philosophy, and European film. In fact, I have as a practice tried things from just about anywhere if I felt something stimulating about it. I came to regard the ordinary culture in which I had been raised as somehow constituting a lack which could only be filled elsewhere. For instance, to this day, although I have fought with myself over it, I remain biased in favor of foreign movies, especially European and Japanese. I think I know what the American experience is like and therefore don't need to be told about it -- nonetheless I see more U.S. films anyway because I live here and some are of course good.

But it is my experience with Asian culture which has transformed me even more into something different than I could have ever conceived or different than most other people of my own culture even recognize. This long experience of over twenty years

has transformed the very nature of my consumption. On one level, I have explored products and services derived from Asia so that I have blended the use of Asian herbs and medicines, foods, books, ritual objects, etc. into my life. At this level, I have observed that people getting involved in Asian culture will often mark that involvement with the adoption of Asian customs of consumption -- a form of symbolic self-completion usually performed by someone less secure in a role than someone more secure in it (Wicklund and Gollwitzer 1982). This often marks an initial stage which later becomes more consonant with a combination of East and West. I must observe that I was combining from the beginning. For example, I have had no problem with being treated by traditional medical practitioners from India, Tibet or China nor do I have a problem being treated by modern Western allopathic doctors. It all depends on the circumstances but for some people, I have observed that such an openness extends beyond their belief system.

At a deeper level beyond the superficial parroting of Asian life style which I never really went too far with anyway, I have experienced a complete transformation of how I experience consumption and other aspects of life such as sex (Gould 1991b). Consumption has taken on a major role in my life praxis of self-fashioning a path of growth and balance. I have already recounted a portion of this in my paper on perceived vital energy in which I frame my consumption activities in terms of a general Asian approach to energy (Gould 1991a). Thus while some of my external forms of consumption activities have been visibly changed, much more important is how I consume in everyday circumstances some of the same things we all consume but with a different perspective. In this sense, I live in a visionary world in which all ordinary consumption activities help constitute and are inhabited by an extraordinary poetic beauty and grace. This vision I attribute to my internalization of various Asian views and my direct experience with 'high' practitioners of Asian methods and philosophies, especially Tibetan.

Thus, consumption for me is not a mundane matter of consuming to exist but instead is a revelatory activity in which my energy and consciousness are manifested as existence itself. This is not to glorify consumption since I regard other aspects of life to be more exalted but it is also to say that exaltation can emerge anytime, anywhere. At the same time, I make consumption choices with exaltation in my mind -- in others words, I both actively intend to create such exaltation out of my experience yet leave room for it to happen without any intended action on my part except to watch and experience it. For example, I may try a new food because I feel it has a certain power or appeal and I want to experience that. Yet, I might also have some passionate experience with something I eat everyday. This for me is the self-fashioning experience brought about by my continuing and insistent exposure to Asian culture which magnifies the ordinary. Indeed, it has been a major research project of mine to explore the dimensions of consumption experience in East-West terms (Gould 1991a,b,c) to enable us to emerge

from the "Occidental enclosure" which shields us not only from the East but much of the rest of the world (Barthes 1988). I might add that this might be construed as deconstructing and rephenomenologizing the 'modern/post-modern project' which disembowels traditional cultures and serves their sinews up as part of the hyperreality of Western culture (Baudrillard 1983). The real penetration of other cultures, if it is at all possible, and if it is also possible to speak of a culture as an existing thing at all, must be at much deeper level than hyperreal social construction will allow.

BOB STINEROCK

One particularly memorable and invigorating consumption experience -- an Asian trip during December 1989 to January 1990 -- led me to an entirely new pattern of subsequent consumption experiences. The decision to make such a trip was based on simple curiosity about the East as well as a life-long love of international travel. I had spent part of my life living overseas but never in the East -- several years in various parts of Europe, somewhat less time in parts of Canada, Latin America, and the Caribbean. I had also had many Asian friends and acquaintances during all periods of my life, most notably Chinese during my grade and secondary school years, and Chinese, Indians and Pakistanis during my college and graduate school years. Nonetheless, until I decided to make my initial foray into Asia, the West was all I knew directly; the East I only knew through friends, schoolmates, television, films, foods and a smattering of Eastern art, literature and music.

None of this prepared me for what I found in India. Indeed I learned that simply knowing a lot of Asians in New York City in no way prepared me for what I experienced. The impact was immediate, powerful and far-reaching. It occurred on at least three levels which can be seen in their effect on my consumption to this day: (1) physical, (2) mental and (3) spiritual.

Physically, I now practice hatha yoga which is characterized by exercise techniques with the goal of physical relaxation and mental calm. Also, my interest in Asian food has extended far beyond my having an occasional meal in Asian restaurants. For example, I regularly entertain groups of friends in my home by cooking Chinese, Indian, Indonesian, and Sri Lankan cuisines. This new interest culminated this year by my taking an extensive course in Indian cooking. Nearly half of all meals I prepare for myself include some type of Asian cuisine. Moreover, I returned to Asia the following year and I have plans for more extensive Asian travel (at this writing), including not only India where I concentrated before, but also Thailand, Malaysia and Hong Kong.

Mentally, my new consumption pattern is represented by my strong interests in Asian art, literature, and music. In addition, I have been watching television programs, seeing films and reading publications targeted to Asian-Americans. I also joined the Asia Society of New York and have taken a course in Hindi.

Finally, and most important to me in a personal sense, my new consumption pattern has manifested itself at a spiritual level as well. What started as merely an intellectual interest in Eastern philosophies and religions has inevitably evolved into something more deeply important in a spiritual sense. Indeed, I have been a struggling but enthusiastic student of meditation and raja yoga for nearly a year and a half.

Does all this mean that I have repudiated the more materialistic West of which I am a product. Certainly not. Even if I could do so, I have no desire to turn away from my formative culture. Even though I now see the West with a keener sense of perspective than I did before my travels to Asia and even though I now see my culture in a kind of "warts and all" light, I am, and always will be, essentially Western.

What all this does mean, however, is that I can now pick and choose my consumption experiences in a way I never could before and that I am now faced with choices which are the best of the West and the best of the East. For example, while the nature of and motivation behind many of my consumption experiences have changed, I still choose to live in the West (in Manhattan, where I have lived most of my life), work there (as a business school professor in New Jersey), and recreate there (spending part of each year in such places as Europe, Texas and Minnesota). Thus, I now have more choices and I make these choices in a more informed manner than I did before.

In the broadest sense, my consumption experience of traveling East turned out to be deeply and personally liberating and that I now have more interesting choices as a consumer represents only one change in my life. There are several others, not the least of which is my becoming aware of all the Western cultural biases I have been carrying all my life. Ironically, perhaps, I required a number of trips to the East to begin to learn what it even means to be Western. Happily, this awareness has resulted in a reduction in the initial tension I felt between my native Western side and my newly emerging Eastern persona. In fact, I feel no sense of dislocation but instead I feel more like a citizen of the world than merely a citizen of New York, the United States or even the West.

CONVERGENT/DIVERGENT PATHS OF TRANSFORMATION

While the two of us share many similarities in our approach to life and consumption, we have arrived there by different paths and continue on them as well. For example, one of us (Bob) took a trip to India and based on that intense experience underwent a psycho-spiritual transformation which led to his becoming involved in Indian spirituality upon returning to the states. On the other hand, the other of us (Steve) got involved in Tibetan spirituality in the U.S. and marked that some years after his initial involvement by a visit to India (where Tibetan refugees live). In Bob's case, the consumption experience served as a determinant of new unforeseen patterns of self-fashioning and led to a major and unexpected transformation which he has subsequently followed with continued self-fashioning.

In Steve's case, consumption experience in the form of an Indian trip was determined by his already ongoing pattern of self-fashioning.

Beyond these experiences, we two in common have engaged in a whole host of self-fashioning consumption 'growth' experiences such as eating and cooking macrobiotic food and also Indian food with hot spices, using Asian herbs such as Ginseng, collecting Asian art objects, reading Asian books, seeing Asian movies, listening to their music, and studying and practicing their psychotechnologies (Roberts 1989), such as yoga and meditation. Moreover, our own experience is not confined to one or two countries but extends to other East Asian countries, such as China, Korea and Japan as well as European. Beyond that, it seems to have made us open to other 'traditional' cultures such as Native American, Native Hawaiian, Balinese etc. in search of the 'primordial wisdom of the primitive. Yet again each of us has had our particular idiographic experiences which have made us differ widely in many aspects. In any case, our view of consumption in our own society has changed tremendously (cf. Gould 1991a). For example, an occasion of celebration, dancing and drinking etc. whether at a bar or a party now seems to take on shamanistic energies and informs and transforms the event semiotically into aspects and levels of meaning beyond what is ordinarily conceived. Thus, even our Western consumption has changed existentially, connotatively, and in purpose - a sort of Nietzschean transvaluation of our experience. While there may seem to be some conflicts and even some alienation between our Western and Eastern minds, our consumption necessarily will always be some amalgam of the values, beliefs and mores of the two cultures although the nature of the amalgam will always be evolving.

SUMMARY OF THEMES AND RESEARCH IMPLICATIONS

The following comprise the summary and interrelated themes of our experience in which cross-cultural consumption on the part of the individual plays a large self-fashioning role:

- (1) the enhancement of identity formation and enrichment, especially as that relates to one's cultural identity,
- (2) the formation of a transformed world-view which provides one with a radically different perspective than one had before,
- (3) the personalization of cross-cultural phenomena in relating and mixing various cultural symbols for oneself,
- (4) the marking of the encounter with otherness (i.e. foreign cultures) [Bar 1979], including many aspects of consumption from food to film,
- (5) the expansion of the construction of one's personalized self-culture.

Future research should aim at discovering the meanings of goods involved in self-fashioning and at penetrating the mysteries of consumers' overdetermined behavior which involves the nexus of cultural and psychodynamic phenomena (Devereux 1980) in the construction of their personalized self-cultures. This may involve cross-cultural aspects of consumer self-fashioning as we emphasized here but may involve many other aspects as well, among which are included: (1) sexual self-fashioning through the use of goods to enhance or fulfill sexual activities in defining one's sexual identity, (2) gender self-fashioning through taking on more or less qualities associated with a particular gender identity, (3) lifestyle self-fashioning in seeking to mold oneself as a representative of a particular lifestyle, and (4) self-actualizing self-fashioning in whatever way any particular consumer views it for him or herself. The idea of self-fashioning requires us to shift our focus to more holistic and phenomenological notions of consumption so that we can investigate at the deepest possible levels how consumers *actively* and *consciously personalize* their cultural environment, embody it, and transform it to suit themselves.

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Implications of the Symbolic Interactionist Perspective for the Study of Environmentally-Responsible Consumption

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ABSTRACT

Consumers can exhibit environmental responsibility by acquiring and using certain products, neglecting to acquire and use certain products, and conscientiously disposing of all products. This paper argues that environmentally-responsible consumption research can be enhanced by the application of the symbolic interactionist perspective. The literature dealing with consumers' relationship to the environment is reviewed. Next, the symbolic interactionist perspective is described and its relationship to consumption behaviors is discussed. Finally, the implications of the perspective for environmentally-responsible consumption research are discussed, and research issues are presented.

Consumers are currently professing environmental concern. Indeed, a recent survey revealed that people are not only concerned about environmental matters (76% of adults described themselves as "very concerned" about environmental issues), but that this concern is being manifested in altered consumer behaviors (ORC 1990). Another poll found that 4 out of 5 people agreed with the statement: "Protecting the environment is so important that requirements and standards cannot be too high, and continuing environmental improvements must be made regardless of cost" (Glazer 1990). Consumers have also indicated that they want to know how to select products that are environmentally safe, and that they desire accurate product labeling and advertising about environmental information (Chase 1991).

While such studies provide basic, general information on environmental attitudes and behaviors, there remains a need for research that provides a deeper understanding of environmentally-responsible consumer behavior. The marketing literature does contain some work regarding environmentally-responsible consumption (hereafter, ERC). Most of this research (to be reviewed later in this paper) occurred in the late 1970s and early 1980s. While many current environmental issues are undoubtedly similar to those that were studied then, there are important differences that make further study of ERC necessary. In general, consumers today are influenced by different political, cultural, and social atmospheres than they were ten and twenty years ago. Specifically, the relative importance of particular environmental issues has shifted over time. Issues such as the potential "greenhouse effect", ozone depletion, dolphins drowning in tuna nets, deforestation, and overflowing landfills are some of the current areas of concern. The fact that environmental issues and concerns are constantly changing (Hume 1991) implies that ongoing research into their influence on consumer behavior is essential.

"Environmentalism" can be viewed as a social phenomenon that influences, and is manifested in, individual behavior. Sociology provides researchers

with the theoretical perspective of symbolic interactionism (SI). The SI perspective holds that people act toward objects based on the meaning that those objects have for them (Blumer 1969; McCall and Simmons 1978). SI is an especially appropriate perspective for the study of ERC because (1) ERC is a specific type of consumer behavior that is directed toward and influenced by issues and concerns that can have a wide variety of meanings for different people, and (2) ERC involves individual responses to a socially-developed and socially-maintained concern.

The purpose of this paper is threefold. First, the literature regarding marketing and the environment will be examined, with an emphasis on ERC issues. Next, the SI perspective will be briefly described, along with a discussion of the links between SI and consumer behavior in the marketing literature. Finally, the implications of the symbolic interactionist perspective for ERC research will be presented, along with corresponding research issues.

MARKETING AND THE ENVIRONMENT:

A REVIEW OF THE LITERATURE

In the early 1970s, several authors addressed the broadening role of marketing in terms of the relationship of marketing to the environment. Kelley (1971) predicted that the environment would become the most important social issue to be considered by the business community. Feldman (1971) foresaw a developing social conscience in marketing, especially with respect to the restoration and preservation of the natural environment. Weiss (1971) anticipated that the "style" of our economy would shift away from one characterized by excessive production, consumption, and waste to one characterized by extensive recycling and more rational levels of production. Shuptrine and Osmanski (1975) discussed "clean-up" and "conservation" as aspects of the changing role of marketing.

The literature specifically addressing ERC issues can be segmented into three main areas. First, several researchers have studied socially responsible consumers, defined as consumers who tend to consider the effects of their purchases on society as a whole, or at least on certain aspects of the social world. Kassarijian (1971) found that people who were more concerned about air pollution had a greater awareness of and were more receptive to an advertising campaign introducing a low-polluting gasoline. Anderson and Cunningham (1972) profiled the high social-consciousness consumer as a pre-middle age adult with relatively high occupational and socio-economic status, who was more cosmopolitan, less dogmatic, less conservative, less status conscious, and less alienated than a consumer exhibiting low social consciousness. Kinnear, Taylor, and Ahmed (1974) identified *ecologically* concerned consumers as scoring high in perceived consumer effectiveness,

openness to new ideas, need to satisfy intellectual curiosity, and need to realize personal safety. Webster (1975) characterized the socially conscious consumer as a member of the upper-middle class "counterculture" that is willing to engage in purchase behaviors that are consistent with personal standards of responsibility, even though the behaviors may not be "popularly accepted." The socially conscious consumer was also characterized as "self-actualizing" (Brooker 1976). Finally, Antil (1984) found that perceived consumer effectiveness, willingness to undertake efforts to be socially responsible, knowledge of environmental issues, and environmental concern were positively related to a measure of socially responsible consumption tendency.

Second, a considerable amount of consumer research addressed the energy crisis of the late 1970s and early 1980s. Several authors researched the effects of energy conservation-related communications and information on consumers (e.g., Reizenstein and Barnaby 1976; Craig and McCann 1978; McNeill and Wilkie 1979; Hutton and Wilkie 1980; Walker 1980; Allen 1982). Consumer attitudes toward energy conservation topics have also been investigated (e.g., Reizenstein and Barnaby 1976; Heslop, Moran, and Cousineau 1981; Belk, Painter, and Semenik 1981; Bennett and Moore 1981; Tashchian, Slama, and Tashchian 1984; Haldeman, Peters, and Tripple 1987). Finally, consumer behaviors related to the energy crisis have been examined (e.g., Ritchie, McDougall, and Claxton 1981; Leonard-Barton 1981; Verhallen and van Raaij 1981; LaBay and Kinnear 1981; Hutton and McNeill 1981; Warriner 1981; Downs and Freiden 1983).

Third, research that specifically discusses ERC has been conducted, addressing the phenomenon from both an aggregate and an individual perspective. Taking an aggregate perspective, Fisk (1973, p. 24) defines responsible consumption as the "rational and efficient use of resources with respect to the global human population." He states that irresponsible consumption in any given geographical area will, at least indirectly, affect the state of resources elsewhere on the planet, and that analysis should thus be conducted on a global level. Uusitalo (1986) proposes a model of the ecological impacts of consumption style that relates demographics, institutional variables, and value variables to consumption style, which in turn has various ecological impacts (including post-consumption waste, energy use, and other pollution). In the applied arena, Henion (1972) found a relative loss of market share for detergent brands high in phosphate and a gain for brands low in phosphate when consumers were provided with phosphate-content information.

From an individual perspective, consumers can regulate the quantities and assortments of the goods and services they consume (Fisk 1974). Kinnear and Taylor (1973) found that (1) an ecological dimension was used by buyers in detergent brand perception; (2) the higher a buyer's ecological concern, the more important the ecological dimension in the buyer's perception of alternative brands; and (3) the higher a

buyer's ecological concern, the greater the perceived similarity of brands that are ecologically benign. Murphy (1975) showed that the importance rating of "harm to the environment" for paper towels and laundry detergents increased with the level of ecological information provided, and that the effectiveness of ecological information was inversely related to prior knowledge of environmental issues. Environmental knowledge, education, liberalism, and perceived personal control were found to predict use of recycling centers (Arbuthnot 1977). Allen (1982) found that perceived consumer effectiveness was linked to responsiveness to influence techniques and propensity for energy-conserving behavior (see also Awad et al. 1983). Olney and Bryce (1991) suggest that consumer researchers examine the ERC-information relationship with respect to two dimensions: (1) the consumption *process*, involving acquisition, use, and disposal stages; and (2) *focus* -- looking at the ERC-information relationship from an individual, interpersonal, and cultural or cross-cultural point of view.

In sum, previous academic treatment of ERC has provided descriptions of general relationships among relevant variables and has defended normative thought. However, a deeper understanding of ERC requires research that examines how, why, and under what circumstances the phenomenon occurs. This paper submits that the SI perspective can facilitate such research.

SYMBOLIC INTERACTIONISM AND CONSUMPTION

The basic principles of SI, as outlined by McCall and Simmons (1978), can be summarized as follows: People continuously construct plans of action. Plans of action are executed based on the meanings of objects (i.e., things, people, or ideas) encountered; therefore, people constantly identify and interpret the meanings of objects that are relevant to their plans. The meanings of these objects are the implications of those objects for the plans of action. For social plans of action, meanings of objects must be consensual to the extent that they are sufficiently common to allow mutual adjustment of lines of action. Finally, the most important object whose identity (and its meaning) must be consensually established in any situation is the person him/herself.

Fundamental to this conceptualization of SI is the concept of *role-identity*. McCall and Simmons (1978) define role-identities as people's imaginative views of themselves as they like to think of themselves being and acting as occupants of particular positions. A role-identity consists of (1) conventional elements (acquired through socialization and past social experiences) that are relatively stable and (2) idiosyncratic elements that arise from interpretations that are tied to specific situations, and are thus dynamic and mutable. Role-identities determine our interpretations of the meanings of situations, events, and people that we encounter in social interactions (McCall and Simmons 1978).

Role-identities are legitimated by role-performance, both internal (imaginative) and overt

(behavioral). Role performance in the form of overt behaviors is designed to elicit role-support, which is the implied confirmation by others of an individual's role performance (McCall and Simmons 1978). The elicitation of role-support can be facilitated by role-taking, which affords a person the ability to anticipate the actions or attitudes of others toward the self, and involves internalizing the attitudes, values, and anticipated actions of others associated with the relevant social context (Cuff and Payne 1979). In addition, role "self-support" can be used to maintain a role-identity through a process of self-interaction (McCall and Simmons 1978).

The role-identity model thus seeks to explain behavior based on the enactment of roles in the context of others' perceived reactions to the behavior:

The individual wants very much *to be and to do* as he imagines himself being and doing in a particular social position. As this congruence is seldom entirely possible, role support -- social testimony in support of his imaginings -- takes on considerable value to the person and may in fact become the major goal of a particular performance (McCall and Simmons 1978, p. 72-3, emphasis in original).

While the symbolic elements of consumption have been addressed by many authors (e.g., Holbrook 1978; Levy 1981; Belk, Bahn, and Mayer 1982; Holbrook and Hirschman 1982; Levy 1982; Holman 1983; Belk, Mayer, and Driscoll 1984; McCracken 1986; Mick 1986; Solomon 1988; Belk 1988), discussion of the SI perspective in consumer research has been limited. Kinch (1967) presents three postulates that relate SI to consumers:

1. A consumer's self-concept is based on perceptions of the responses of others.
2. A consumer's self-concept functions to direct behavior.
3. A consumer's perception of the responses of others to some degree reflects those responses.

Drawing on McCall and Simmons (1978), Schenk and Holman (1980) present a model in which comparison of brand image and situational self-image drives brand choice. When people select an image to project in a social situation, they find ways to express that self-image. One way this can be accomplished is through the purchase of products. Lee (1990) discusses the implications of symbolic interactionism for consumer self-concept and product symbolism research. Lee presents a model of brand choice that integrates: (1) the situational self with the actual self; (2) social risks with functional and performance risks; and (3) public consumption situations with private consumption situations.

Solomon (1983) discusses the role of products as social stimuli. Symbolic products "set the stage" for the various social roles that people assume, and the

consumption of such products is designed to indicate and clarify the meaning of role behavior. Products can thus help define the self, and can function as stimuli that cause behavior. In this capacity, product symbolism can facilitate role performance, self-attributions, and the establishment of situational self-images. The symbolic properties of products have meanings that are shared within a cultural context. People undergo a self-interactive, reflexive evaluation of the meanings assigned by others to products, and incorporate this interpreted appraisal by others into the self-concept.

IMPLICATIONS OF THE SYMBOLIC INTERACTIONIST PERSPECTIVE FOR ERC RESEARCH

Through news media coverage, advertising, and product labeling, the potential environmental impact of many products, whether positive or negative, can often be identified. Because of this, these products may function as symbols of "environmental responsibility" when associated with positive environmental effects, or as symbols of "environmental irresponsibility" when associated with negative effects. Similar environmentally-related symbolism may be associated with product use and disposal behaviors.

Application of Solomon's Symbolic Consumption Framework

Solomon's (1983) five propositions addressing the role of products as social stimuli can serve as a useful framework in which to study ERC issues:

1. The symbolism associated with many products is the primary reason for the purchase and use of those products (Solomon 1983).

The "environmental responsibility" symbolism associated with certain products (e.g., non-animal-tested cosmetics) and behaviors (e.g., recycling, choosing cloth vs. disposable diapers) may be the primary reason for the purchase of those products and the execution of those behaviors. Such purchases may serve to legitimate an "environmentally responsible" role-identity. This legitimation would be reinforced through role support by (1) direct support of others (e.g., comments about the responsibility of the purchase) and/or (2) a role-taking process where the reactions of others are anticipated. Also, the symbolism associated with environmentally-related use and disposal behaviors may stimulate their enactment.

2. Individuals can, to a significant degree, be evaluated and placed in a social nexus based on the products that surround them (Solomon 1983).

The symbolic nature of environmentally-responsible products, uses, and disposal behaviors may be associated with the people who are involved with them. The corresponding symbolism associated

with a person then serves to present to others an environmentally-related image of that person, and can facilitate others' evaluations of that person. For example, a person may be viewed by others as an "environmentalist" (e.g., carrying a cloth grocery bag filled with vegetarian foods walking toward an economical car with a Greenpeace sticker in the window), or a person may be identified as uncaring about the environment (e.g., carrying plastic grocery bags filled with beef, and pulling away in a gas-guzzling car exuding black exhaust smoke).

The possession of and use of environmentally-responsible products may affect how an individual is perceived by both significant and non-significant others. Whatever the image presented, others may evaluate it based on the meanings they themselves attach to the symbols upon which the image is grounded. Before individuals undertake an environmentally-responsible action, they may anticipate (through role-taking) the reactions and evaluations of others regarding the meaning of that action. Individuals' interpretations of the potential reactions of others can then serve to reinforce, modify, or negate the intended course of action.

3. Through reflexive evaluation, people can assign social identity to themselves based on the interpreted meanings of product symbolism (Solomon 1983).

Environmentally-responsible images perceived by others become self-images when individuals undergo a role-taking, interpretive, reflexive evaluation process in which they make indications to themselves as to the meanings of their outwardly-presented symbols. These indications can result in the formation of a role-identity in which a consumer desires to see him/herself as being and acting "environmentally-responsible," especially when positive feedback from others is perceived or anticipated. Role performance associated with such a role-identity may result in the development of corresponding attitudes (e.g., "Protecting the environment is the most important issue today") and lines of action (e.g., organizing neighborhood recycling projects). Interpretive self-interaction regarding the meaning of the symbolism associated with these attitudes and actions may also support the role-identity.

4. The process of self-definition will result in the development of scripts that guide behavior (Solomon 1983).

An environmentally-responsible role-identity would shape the interpretations of symbolism in consumption situations that have environmental implications. Subsequent behaviors will be directed toward further reinforcement of that self-image. The reinforcement of the self-image will be facilitated through further association with products and with use and disposal behaviors that embody symbolism that is commensurate with the developed self-image. For example, an individual who sees him/herself as

"environmentally-concerned" would tend to recognize the environmental implications of a wide variety of consumption behaviors, such as shopping for household supplies, heating a home, or deciding how to throw away things while cleaning the garage. Choices made with respect to these behaviors can symbolize environmental concern -- e.g., buying aerosol-free cleaning supplies, setting the thermostat low, and properly disposing of chemicals. By making such decisions, individuals reinforce their "environmentally-concerned" self-image.

5. Symbolic consumption can exert an a priori effect on role definition, especially in situations where scripts are weak (Solomon 1983).

The interpretive process whereby an environmentally-responsible self-image is developed may be more likely to occur in situations where alternative lines of action (perhaps based on alternative self-images) are absent or not adequately established to override an emergent "environmentalist" self-definition.

Application of Other SI Theoretical Considerations

Both the conventional and idiosyncratic elements of role-identities have implications for ERC. Conventional elements would involve the development of sustained behaviors and behavioral standards. These behaviors would be based in aspects of the role-identity that are developed through socialization and past social experiences. For example, environmentally-responsible habits may be learned from parents, school projects, etc. Idiosyncratic elements of role-identities would be involved in specific consumption situations that have implications for environmental responsibility. Decisions made in such situations would be tied to a situational self-image where the perception of others in the situation influences which self-image is evoked (Schenk and Holman 1980). For example, the decision of whether to toss a soft drink can into the trash or to save it for recycling might be affected by an individual's anticipation of the reactions of others nearby, with respect to the self-image that the individual desires to portray.

As Olney and Bryce (1991) suggest, ERC research can benefit from addressing the different stages of the consumption process -- acquisition, use, and disposal. As indicated above, all stages of the consumption process may be impacted by symbolic designation, role-taking, and self-interaction. Each of these stages can also have environmental implications (Olney and Bryce 1991). Purchase situations include those in which significant and/or non-significant others are present. For example, family members or friends could witness the purchase of an ozone-depleting aerosol, or consumers could be asked, "Paper or plastic?" at the grocery store with a crowd of strangers standing in line behind them. Use situations include driving a car that is emitting clouds of black smoke or using non-recyclable products when

recyclable alternatives are readily available. Disposal situations include throwing away recyclable materials.

Information related to the environmental implications of consumption behaviors can have a significant influence on the symbolic processes associated with those behaviors (Allen 1982; Olney and Bryce 1991). As mentioned earlier, media coverage of environmental issues, and the influence that consumers can have on these issues, has increased dramatically. Also, advertising and promotions are increasingly emphasizing the positive environmental effects of products. Consumers are therefore being exposed to a great deal of information that serves to develop and/or reinforce the symbolism associated with environmentally-related products and behaviors. Consumers can incorporate this information into the interpretive process by which meanings are attached to the symbols. However, research that simply examines the correlation between environmental information and ERC attitudes and behaviors, while perhaps necessary, is insufficient. An understanding of what that information *means* to the consumer and how it is incorporated into interpretive processes of self-image or role-identity formation is vastly more important for gaining an in-depth understanding of the phenomenon. Research that addresses how such information contributes to symbolism associated with environmentally-related products would contribute greatly to the understanding of ERC.

Another issue involving environmentally-related product information is the *accuracy* of that information. Conflicting reports of the environmental effects of various products and practices can be obtained across and even within sources. For example, despite the extensive reporting of the declining state of the environment, a recent editorial presents evidence that the air and water are getting cleaner, acid rain may prevent global warming, urban smog offers protection from ozone depletion, and family farmers dump more chemicals than toxic waste sites (Easterbrook 1990). Information that contradicts prior beliefs regarding the effects of products may play a different role in the interpretive process of role-identity formation -- perhaps catalyzing a modification of the role-identity.

Some ERC-related decisions, whether benign or detrimental, may involve habit or routine behavior. For example, a family may always use styrofoam rather than paper plates on their picnics, or a family may always purchase the same brand of non-biodegradable diapers, regardless of the amount of information to which they are exposed about the environmental impacts of such products. Conversely, some ERC decisions may involve a trade-off analysis. In this case, an evaluation of alternative courses of action occurs, and there are both positively- and negatively-perceived aspects of each alternative. Examples range from evaluating the higher price of an environmentally-responsible product to evaluating the relative effects of deforestation vs. overflowing landfills when making a "paper or plastic" grocery bag decision. Such alternatives may be evaluated based on the meanings that they are perceived to impart, especially with respect to the presentation of a self-

image. The relative attractiveness of alternatives may also be grounded in conflicting role-identities. For example, people may perceive themselves to be environmentally-responsible, but also as upscale and status-seeking. These role-identities could conflict, for example, in an automobile purchasing situation (energy-efficient and plain vs. gas-guzzling and prestigious).

ERC research would also benefit from examination at different levels of aggregation (from individuals, to segments, to society as a whole). SI holds that, at any level of aggregation, interlinkages of action are operating based on the meaning that these symbolic products have for people (Blumer 1969). An examination of the process by which the meanings of certain product symbols become consensual and widespread would enhance the understanding of ERC by bridging levels of aggregation. Such research could also improve the understanding of how ERC-related, societal-level "taboos" (such as "don't wear fur," "don't buy tuna", etc.) are established and maintained.

CONCLUSION AND RESEARCH ISSUES

This paper has attempted to show the potential for combining a current research area in marketing -- environmentally responsible consumption -- with a sociological perspective that has received limited attention in consumer research -- symbolic interactionism. ERC is a specific type of consumer behavior that is directed toward and influenced by issues and concerns that can have a wide variety of meanings for different people, and involves individual responses to a socially-developed and socially-maintained concern. ERC is a complex phenomenon; therefore, its investigation requires a research perspective that can facilitate and enhance the understanding of those complexities. This paper proposes and seeks to demonstrate that the conceptual implications of SI correspond compellingly to the conceptual issues involved in ERC, and that the application of the SI perspective can improve the level of understanding of ERC. By extension, the SI perspective may also be useful in understanding how the attitudes and behaviors associated with various lifestyles or values are established, maintained, and changed.

The above discussion of the implications of the SI perspective for ERC research suggests several research issues that can be organized around the main elements of the role-identity concept:

Role-Identity Issues

1. How are "environmentally-responsible" role-identities established, maintained, changed, and/or abandoned?
2. What do environmentally-symbolic consumption behaviors say about people to *themselves* in the course of self-interaction?

3. How do the reactions (both actual and anticipated or imagined) of others influence the establishment of ERC-related role-identities?
4. How are the conventional and idiosyncratic elements of an ERC-related role-identity related?
5. How is environmentally-related information incorporated into consumers' interpretive processes, and what is its function in the role-identity formation process? What are the implications of this process for modifying behavior?
6. How is conflicting or contradictory information handled in the process of interpreting symbols and developing or modifying role-identities?
7. What specific aspects of personality and lifestyle facilitate role performance for an ERC role-identity?
8. What are the differences between environmentally-responsible and -irresponsible consumers? How are ERC-related role-identities linked to other role-identities that are not related to environmental responsibility?
7. How do role-identities affect the reinforcement (or abandonment) of habits? How do they affect trade-off analyses?
8. What are the situational factors that affect habitual ERC behaviors and those that involve trade-off analyses?
9. What are the implications of ERC symbolism for behaviors at different levels of aggregation? How are societal-level, ERC-related "taboos" established, maintained, and/or abandoned?
10. What specific aspects of personality and lifestyle facilitate role performance for an ERC role-identity?

Role Performance Issues

1. How do the reactions (both actual and anticipated or imagined) of others influence role performance associated with an ERC-related role-identity?
2. What factors facilitate the link between the establishment of an "environmentally-responsible" role-identity and actual environmentally-responsible consumption behaviors?
3. How are lines of action modified as a function of the relationships among ERC-related role-identities and other role-identities?
4. How are ERC behaviors affected by the interaction of conventional and idiosyncratic elements of an ERC-related role-identity?
5. To what degree is environmentally-related symbolism a stimulus for acquisition, use, and disposal behaviors?
6. How do ERC behaviors differ across different stages of the consumption process?

Role Support Issues

1. How do ERC behaviors elicit role-support from others that reinforces the role-identity?
2. In what ways is role support for an ERC role-identity manifested?
3. What specific aspects of personality and lifestyle facilitate role support for an ERC role-identity?
4. What are the situational and temporal factors associated with the elicitation of role support?
5. Does environmentally-related information function as role support for an ERC role-identity?

McCall and Simmons (1978) offer a discussion of the research issues associated with role-identities. Role-identity sets (the assortment of role-identities associated with an individual) can be identified using a combination of unstructured instruments such as the Twenty Statements Test of Self-Attitudes (Kuhn and McPartland 1954) and structured questionnaires that allow subjects to select social roles from a comprehensive list. The relative prominence of the role-identities can be measured by having subjects rate the importance of various role-identities to themselves. Role-identities can also be rated in terms of their relative salience (as determinants of performance in specific situations), which will be influenced by prominence, current need for support, current need for intrinsic and extrinsic gratification, and perceived opportunity to enact the role-identity. To determine the role-identity "contents" (i.e., what an individual thinks about him/herself as an occupant of a role) of a role-identity of interest, attention should be paid to specific activities, style and manner, appearance, reference groups and significant others, and recurrent themes associated with the role prominence and salience hierarchies. This research scheme may thus be used to examine the existence,

prominence, salience, and contents of an "environmentally-responsible" role-identity.

In addition to role-identities, other individual and interpersonal constructs may be relevant to ERC research that is based on an SI perspective. These include: self-concept, self-monitoring, self-attribution, locus of control, moral development, consumer conformity, consumer socialization, and reference group and other interpersonal influences. An examination of these and other constructs in an ERC context would contribute to the body of knowledge about ERC.

Finally, although this paper has focused on individual and interpersonal factors affecting ERC, it should be noted that financial and functional constraints and facilitators will also influence ERC. Financial constraints on ERC could occur when environmentally-responsible consumption alternatives cost prohibitively more than other alternatives. Financial facilitators include incentives to stimulate energy conservation (Hutton and McNeill 1981; Hutton and Markley 1991). Functional constraints involve lack of availability of environmentally-responsible alternatives in some product categories, inadequate dissemination of information about the environmental consequences of consumption behaviors, and diminished performance of some environmentally-responsible products. Functional facilitators include proliferation of environmentally-responsible alternatives, increased amount and accuracy of information, better performance of some environmentally-responsible products, and community programs (such as those that provide recycling bins).

When all the social psychological, financial, and functional factors that influence ERC are considered, the complexity of the phenomenon becomes readily apparent. This complexity, combined with the current relevance of environmental issues, presents significant research opportunities. The investigation of ERC represents an important and timely challenge for consumer researchers, and such investigation would be significantly enhanced by a research program that applies the SI perspective.

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Consumer Assessments of Responsibility for Product-Related Injuries: The Impact of Regulations, Warnings, and Promotional Policies

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ABSTRACT

This paper examines the impact of regulations, warning labels and promotional policies on consumers' attributional processes. The results of an experiment manipulating these characteristics within a product-injury scenario show that the manner in which these managerial factors are treated can affect assignments of responsibility. In addition, the degree to which an injury is unanticipated is also shown to affect consumer attributions.

INTRODUCTION

A wide range of marketing decisions, including pricing policies, distribution systems, and advertising claims are governed by public policy regulations (Werner 1982). The area of consumer safety, however, may be the most heavily regulated aspect of the marketing discipline. Beginning with the Pure Food and Drug Act (1906), a steady stream of government agencies and legislation has been enacted in an effort to protect consumers from unsafe products. The marketing academic community has responded by investigating attitudes and opinions of various parties involved with public policy and by keeping abreast of developments in product safety legislation. As examples, Busch (1976) surveyed bicycle manufacturers to determine their evaluation of Consumer Product Safety Commission (CPSC) safety regulations. Later, Busch and Hair (1980) compared the attitudes of three different parties, manufacturing executives, insurance executives, and state insurance commissioners, regarding a variety of product safety issues. Taking a different approach, Morgan (1982; 1986; 1988; Morgan and Avrunin 1982) has extensively reviewed product liability legislation and court cases, discussing policy implications as they relate to consumers and policy makers. Each of these studies has provided valuable insight into a diversity of public policy issues.

The present study compliments previous research on product safety issues by offering perceptions and reactions from a consumer's perspective. More specifically, the objective of this research is to assess the effect of three dimensions of product safety policy on consumer attitudes and behavior: (1) product safety regulations; (2) warning labels; and (3) advertisements stressing product safety. To accomplish this goal, this study briefly reviews the present product liability situation, presents a theory-based model of consumer assessment of responsibility for a product-related injury, develops the intervening role of "unanticipated consequences" of product usage on consumer evaluations of these mishaps, and empirically tests relationships implied by the model utilizing experimental scenarios.

BACKGROUND

Unquestionably, the product safety arena is of great importance to consumers and decision makers. To illustrate this point, consider the plight of one industry, general aviation, hit particularly hard by escalating costs. The production of light aircraft has been sharply curtailed, from 17,811 units in 1978 to 2,438 in 1984 (North 1985) and continues to fall. This rapid decrease has been directly attributed to the reported \$60,000 to \$100,000 per unit liability insurance expense (Gatty 1987).

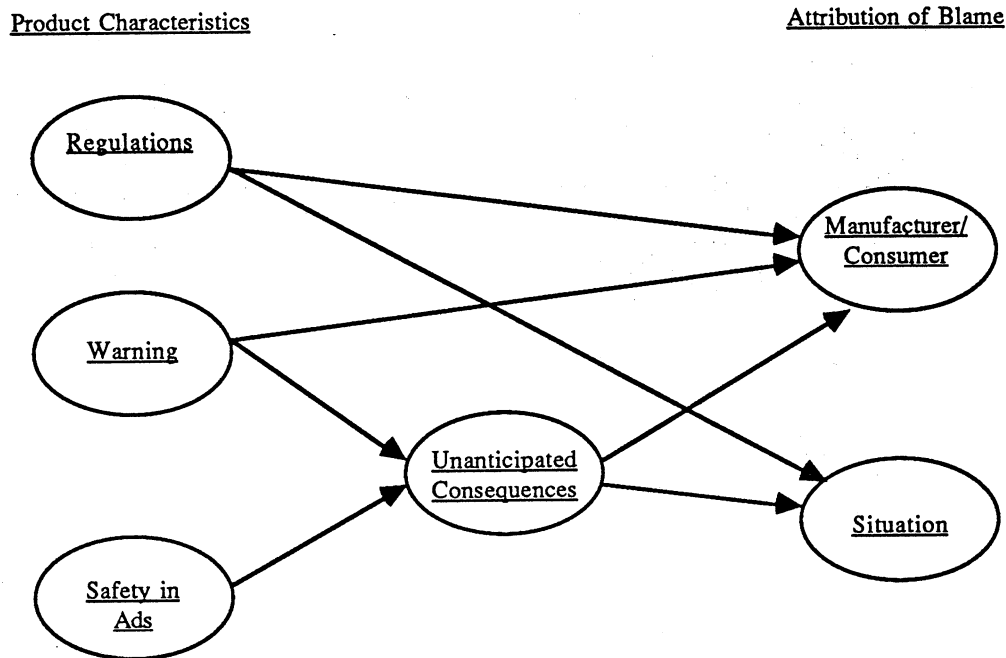
Likewise, many other industries, including pharmaceutical and cosmetic producers and distributors (Friend 1990), health care providers (consider the plight of OB/GYN physicians), and even volunteer coaches of children's sports teams (Mihoces 1990) have been hard hit by the potential of liability. For consumers, the liability crisis has greatly increased prices (*Private Pilot* 1990), limited the selection of products available in the market (Olsen 1989), and stifled technological innovation (Martin 1989). With few exceptions, those marketing consumer goods must be better aware of the costs and consequences of product liability, as well as consumer perceptions of product safety issues, to better serve their customers and secure a competitive position.

Three actions which may be taken by marketers which may affect consumer attitudes toward product safety concern (1) the application of available safety standards, (2) the use of appropriate warning labels on products, and (3) an increased emphasis of product safety in their promotional campaigns. While these three factors do not exhaust the possible actions which might impact consumer perceptions of product-related injuries, they are considered here for three main reasons. First, each is a variable which is highly controllable by policy makers and/or management. Second, under the legal doctrine of strict liability, these actions should not influence assignment of responsibility for a product-related injury. Third, these three factors were revealed as highly salient in qualitative research designed to explore consumers' product safety attitudes. The question of just how these factors might influence consumers' causal attributions of responsibility toward manufacturers, consumers, and situations for product-related injuries is explored by experimentally manipulating these three factors.

Theoretical Development

As consumers, individuals are frequently exposed to media sources reporting stories of people injured by products they themselves use. Further, when consumers become jurors, they are forced to ponder causes of injuries and determine precisely when and how much compensation should be awarded. In both roles, we feel that an individual pursues his/her

FIGURE 1
Hypothesized Relations Between Product Characterization and Attributions of Blame



natural motivation "to attain a cognitive mastery of the causal structure of his environment" (Kelley 1967, p. 109). The model shown in the Figure depicts a number of relationships proposed to represent the manner in which consumers ascribe responsibility for a product-related injury.

A central component of the model is a construct termed *unanticipated consequences* (UC) which intervenes between two of the manipulations and assignment of responsibility. Clearly, no consumer anticipates being injured or killed by a product they purchase. Other than those prone to suicide, no consumer would make such a purchase. Further, not only are product-related injuries unexpected events, but, they are *unexpected negative* events. In a recent study of unexpected favorable events (Howard and Barry 1990), the extent to which an event is unanticipated was shown to alter consumer product evaluations due to heightened affect. Considering the negative nature of product injuries, it could be argued that any effects due to the unexpectedness of an event would be even greater than for positive events (Tversky and Kahneman 1981) and be even more likely to evoke "spontaneous attributional activity" (Weiner 1985). Thus, the extent to which a product-related injury is unanticipated (UC) is presumed to alter consumers' attributions of responsibility for a mishap.

The unanticipated consequences (UC) variable shares similarities to the disconfirmation paradigm of product satisfaction (Olshavsky and Miller 1972; Tse and Wilton 1988). Using this paradigm, Churchill and Suprenant (1982, p. 493) define satisfaction as "an outcome of purchase and use resulting from the buyer's

comparison of the rewards and costs of the purchase in relation to the anticipated consequences." In this study however, the *consequences* are largely *unanticipated*; that is beyond the typical consumer's range of considered outcomes. Rather than merely experiencing a product performance worse than expected, UC may produce extreme levels of negative satisfaction and very strong levels of attribution of blame toward a product's producer. Consider a brief example as illustration. When purchasing a new lawn mower, a consumer has a set of expectations regarding the mower's ease of starting, durability, cutting ability, maintenance requirements and so forth. Negative disconfirmation would occur if the mower's performance on these attributes failed to meet prior expectations, or even if the mower failed to operate at all. However, if a largely unanticipated negative outcome (such as a product-related injury) were to occur, a traditional disconfirmation model may be insufficient to capture the consumer's reaction. More specific support for each of the relationships implied by the model follows.

Research Hypotheses

Indirect Effects. As can be seen in the figure, UC intervenes between two product characteristics and various attributions of blame. A number of hypotheses result. The hypothesized relationship between the experimental manipulations and UC is based on the above discussion as well as the concept of search, experience, and credence properties (Darby and Karni 1973; Nelson 1974). To make the consumer aware of the danger, the manipulations must represent search properties. In other words, we propose only

those factors which a consumer is made aware of prior to actually using a product would serve to affect the level of UC (Darby and Karni 1973; Nelson 1974). Therefore, how a product compares to governmental regulations, which is very difficult to determine prior to purchase, would have no affect on UC. On the other hand, proper warnings attached to the product should make the consumer aware of the dangers involved. Conversely, advertisements that stress the safe nature of the product (e.g., Michelin, Volvo, Mercedes Benz, etc.) may heighten UC. For instance, advertisements which depict a product as "totally safe" or "absolutely harmless" may create a latent sense of security regarding product safety. Thus we hypothesize:

- H1: Those products which include a safety warning are associated with lower levels of UC than are products without safety warnings.
- H2: Those products associated with advertisements stressing product safety are associated with higher levels of UC than products without such ads.

As mentioned above, strong casual attributions can be expected as an injury increases in UC, or is more unexpected. According to the "Just World Hypothesis" (Lerner and Miller 1978), the world is, in general, orderly and an individual's pursuit will not be blocked by environmental interference. Thus, unusual events "require for their occurrence a greater causal role by the victim or perpetrator" (Kelley and Michela 1980, p. 476). Therefore the respondents will be highly motivated to assign the responsibility for such an incident to someone or something. Furthermore, Weiner (1982) has posited that many negative events, such as a product injury, are likely to lead to external, rather than internal, attributions. In this case, higher levels of UC should increase attributions of blame toward the manufacturer (i.e., the manufacturer must have failed in their duty to provide a safe product or to make the consumer aware of the danger) and reduced attributions to the usage situation (i.e., a highly unexpected event would not occur by chance in a just world). We pose the following hypotheses:

- H3: A positive relationship exists between UC and assignment of blame to the manufacturer.
- H4: A negative relationship exists between UC and assignment of blame to the situation.

The result of this series of hypotheses is an indirect effect of both warnings and safety promotions on attributions of blame. The impact is felt through the intervening variable, UC.

Direct Effects. Aside from the indirect effects, a series of hypotheses represent direct effects of the experimental manipulations on attributions of responsibility. Is there a benefit from going beyond safety standards established by governmental

agencies? Under the doctrine of strict liability, simply meeting the required standards is all that is necessary and anything in addition (if an injury actually does result) is wasted. In making attributions, however, the "controllability" (Rosenbaum 1972; Weiner, Russell and Lerman 1979) of the causal factor is relevant information. In practice, safety standards are not under volitional control of a manufacturer, but a willingness to exceed these standards in an effort to make a safer product is. Assuming that government standards are in place to insure the safety of products, any goods exceeding these standards must be even "safer than necessary." Consequently, accidents resulting from one of these products may be perceived of as carelessness on the part of the consumer. Further, such actions by a manufacturer may create perceptions of a company which went out of its way to protect its product users and thus may be less likely to be blamed for a product mishap.

- H5: Products having safety standards which exceed government standards are associated with lower levels of attributional blame toward manufacturers than are products that simply meet those standards.
- H6: Products having safety standards which exceed government standards are associated with lower levels of attributional blame toward the product-use situation than are products that simply meet those standards.

A similar argument can be made regarding the presence of safety warnings. The manufacturer has fulfilled his responsibility by providing a warning concerning the danger of the product, reducing his blame for any ensuing mishap. While making a safer product (exceeding the safety standards) can reduce accidents due to chance, no amount of safety warnings can prevent a true accident from occurring. We anticipate:

- H7: Those products which include a safety warning are associated with lower levels of blame toward the manufacturer than are products without safety warnings.

RESEARCH APPROACH

Focus Groups

As mentioned earlier, the manipulations in the Figure represent three characteristics of product safety identified in a series of focus group interviews concerning attitudes toward product safety and the jurisprudence system. In total, six focus groups comprised of 61 participants were conducted. Focus group members were selected to represent a wide cross-section of demographic characteristics including sex, age, education, income, occupation, and knowledge and experience with the legal system. Throughout each focus group interview, the three factors (warnings, regulations, and advertisements stressing safety) consistently emerged as important factors to

consider in judging responsibility for product injuries. These three variables, therefore, were thought to be relevant for further analysis based on qualitative analysis, the level of managerial controllability and supposed courtroom irrelevance.

Experimental Design

Having determined three relevant managerial variables which might determine attributions of responsibility for product-related injuries, a 2 X 2 X 2 between-subjects design was employed to test the various research hypotheses. Each experimental variable was manipulated over two levels: (1) *warning labels* were positioned as either being present or not present, (2) the manufacturer was said to have either far exceeded or merely met all government *safety standards*, and (3) the *product ads* were described as either stressing safety or other product features. A product-related injury scenario was built around these manipulations which was patterned after an actual liability case involving an injury resulting from the use of a claw hammer. In *Chappuis v. Sears Roebuck & Co.* (1978), a young man lost the vision in his left eye when a chip flew off the head of a hammer and struck him in the eye. Aspects other than the manipulations (i.e., type of injury, plaintiff characteristics, and the defendant's reaction, etc.) were held constant across all subjects.

Data Collection

The data collection procedure follows the approach suggested by Abramson and Mosher (1975; Abramson, Goldberg, Abramson, and Gottesdiener 1975) and utilized in a psycholegal study by Feild (1978). Abramson and Mosher (1975) suggest using a large number of interviewers with varied demographic and personality traits in the data collection process in an effort to eliminate any interviewer bias. Feild (1978, p. 160) applied this procedure in a study of attitudes toward rape. In Feild's experiment, students were familiarized with the survey instrument and trained in the administration of its measures. The students were then used as field interviewers in questionnaire administration.

Following these procedures, students enrolled in marketing research courses at a large midwestern university were thoroughly familiarized with the survey instrument, and received training in its administration. Each student completed interviews with four members of the urban community, excluding students and university personnel, in exchange for course credit. Telephone surveys were conducted with a subsample of the respondents to control the quality of the survey. Following the telephone verification process and deleting questionnaires with incomplete responses, 91% of the questionnaires distributed were retained for analysis. The resulting sample consisted of 204 subjects. The demographic characteristics of the sample are representative of the community as a whole based on age distribution, male-female ratio, and ethnic origin, and slightly above average on education and income.

This procedure provides several benefits. First, interviewers of both sexes, a mixture of ethnic

backgrounds, and varied styles of interaction will be utilized to administer the survey instrument, thus avoiding the pitfall pointed out by Abramson et al. (1975). Second, the variance in characteristics of the interviewers is likely to be reflected in the respondents. Third, interviewers will be able to clarify any questions the respondents might have while completing the questionnaire. Finally, the nonresponse bias often associated with mail surveys can be avoided; Feild (1978) reported a usable response rate of 82%.

Manipulation/Confounding Checks

In experimental designs, subjects are exposed to various conditions and expected to react differently to those conditions. To insure the internal validity of this experiment, manipulations were tested and revised during pretesting as suggested by Aronson and Carlsmith (1968) and Wetzel (1977). The effectiveness of the experimental manipulations in the final scenarios was then assessed by asking the respondents if: (1) the product's warning labels were sufficient (warnings); (2) the manufacturer's advertisements stressed product safety (advertisements); and (3) the product exceeded government safety regulations (regulations).

To examine the manipulations the subjects were classified into high and low groups for each of the manipulations and then tested for a difference in the mean response on the three check questions. With this approach, both the effectiveness of the manipulations and any potential confounding effects between manipulations can be tested (Wetzel 1977). Or, as presented by Perdue and Summers (1986, p. 318), "the experimenter would like to be able to demonstrate that (1) the treatment manipulations are related to "direct" measures of the latent variables they were designed to alter and (2) the manipulations did not produce changes in measures of related but different constructs." In each case, a significant difference was found between mean scores on the appropriate measure, but not the others, suggesting that the manipulations were effective and independent. The results are presented in Table 1.

Measurement Results

Assignment of Blame/Responsibility. In measuring the assignment of blame/responsibility, two questions had to be answered. First, the appropriate bases for the causal attributions had to be identified. That is, *who* or *what* is the accident attributed to? Second, what was the suitable term(s) to use to capture *causality*?

In regard to the first question, Kelley's (1967, p. 194) principle of covariance (Kelley Cube) established three dimensions of causal inferences: (1) the stimulus object or *entities*; (2) the observer of the event or *person*; and (3) the context or *time* in which the effect occurs. In a frequently cited study of causal attribution, McArthur (1972, p. 175) operationalized these dimensions by asking respondents to assign the cause of an event to either (1) "something about *the person*," (2) "something about *Stimulus X*," (3) "something about the *particular circumstances*" or (4)

TABLE 1
Results of Manipulation Checks

Experimental Element	Warnings		Advertisements		Regulations	
	T Value	Prob.	T Value	Prob.	T Value	Prob.
1) Product Safety Warnings	4.21	.000	1.16	.253	0.14	.300
2) Safety Stressed in Advertisements	0.80	.430	3.17	.003	0.32	.280
3) Exceeded Safety Regulations	1.52	.138	0.12	.907	3.44	.002

TABLE 2
Factor Analysis of Blame and Responsibility Items

Scale	Scale Item	Factor Loading		Reliability
		1	2	
Assignment to the Manufacturer\Consumer				
	How RESPONSIBLE was Mike Johnson?	.9080	-.1278	.92
	How much do you BLAME Mike Johnson?	.8734	-.1472	
	How RESPONSIBLE was the MANUFACTURER?	-.9151	-.0347	
	How much do you BLAME the MANUFACTURE?	-.9000	-.0097	
Assignment to the Situation				
	How RESPONSIBLE was FATE or CIRCUMSTANCES?	.1056	.9190	.84
	How much do you BLAME FATE or CIRCUMSTANCES?	.1163	.9191	

a combination of these factors. Bettman (1979) has suggested that when applied to the study of consumer behavior, the corresponding causal agents would be the product, the person, and the situation. Folkes (1984) successfully utilized this categorization in her study of causal attributions of product failure. It is important to note, however, that Folkes (1984, p. 75) expanded the "product" category to include the retailer which sold the product (pants) as well as the manufacturer. Based on these studies, the consumer, the product/manufacturer, and the situation were determined to be the appropriate bases of causal attribution for the study.

The second question arises from the conceptual work of Shaver (1985), who argues persuasively that attributions of *blame* and *responsibility* are not identical and the different dimensions might relate more to one attribution than to another. Based on Shaver's supposition, pretests have been conducted using attributions of both blame and responsibility toward the person, product, and situation. The results revealed a high correlation between measures of blame and responsibility for each of the three bases of attribution. A similar finding has recently been

reported by McCaul, Veltum, Boyechko, and Crawford (1990) who employed measures of attributions of both *blame* and *responsibility* in a study of rape victims. Their results (McCaul et al. 1990, p. 13) also indicated a high correlation between the two measures (average correlation = .62), which they consequently summed for further analysis. Therefore, despite Shaver's arguments, empirical evidence suggests that respondents have a difficult time distinguishing between the concepts of blame and responsibility.

Furthermore, principal components analysis of the six items indicates that a two factor solution is appropriate. As can be seen in Table 2, the four items measuring attributions to the consumer and manufacturer loaded on a single factor (but with opposite loadings) and exhibit a high degree of internal consistency (Cronbach $\alpha = .92$). At the same time, the responsibility and blame items for the situation loaded on a separate factor. Thus, scales utilizing both terms are included in the survey instrument to provide a multi-item measure, but will be summed to create a measure of blame/responsibility toward (1) the manufacturer and (2) the situation.

TABLE 3
Model Statistics - Predicting Attributions of Blame for Product Mishaps

Variable	Dependent Variable:		
	Unanticipated Consequences (UC)	Attribution of Blame To:	
		Manufacturer/Consumer	Situation
R^2/β	R^2/β	R^2/β	
Overall Model Fit			
R^2	.07	.48	.06
F	5.15 ^b	45.5 ^c	3.31 ^a
Predictors:			
Regulations	—	-.27 ^c	-.03
Warning Labels	-.21 ^b	-.21 ^b	
Safety Promotion	.18 ^b	—	—
UC	—	.63 ^c	-.23 ^b
^a $p \leq .05$	^b $p \leq .01$	^c $p \leq .001$	

Unanticipated Consequences. UC is designed to measure the respondent's judgement of the plaintiff's expectations regarding product safety. In other words, does the respondent think the user of the product could or should have anticipated the danger associated with its use? Five items were devised to capture UC and refined and modified in pretesting. Three items were retained that both load highly on a single factor (.76 to .82) and display acceptable internal consistency ($\alpha = .76$), providing a parsimonious yet reliable scale. The items reflects the extent to which an incident should be (or should have been) expected given the nature of the product.

MODEL ANALYSIS AND RESULTS

The Figure depicts a three-equation path model employed to test each hypothesized relationship. Each hypothesis is illustrated by a single path in the proposed structure, and the strength and nature of each relationship can be represented by its standardized regression coefficient (β). Given that the model is recursive and overidentified, ordinary least squares can be used to estimate its parameters and assess the level of predictive validity associated with each endogenous construct (Blalock 1961; Asher 1976; Darden 1981). Consequently, Table 2 contains the results of estimating each equation using a series of OLS regressions, from which, a test of the previously discussed hypotheses can be inferred.

Overall Fit

Although our intent was not to provide a test of a fully specified model, an analysis of any regression model should begin by assessing its general level of significance. The overall fit of each equation comprising the path model, as indicated by its coefficient of determination (R^2) and corresponding F-

ratio, achieved an acceptable level of statistical significance. On closer inspection, the model was much more successful in predicting attributions of blame toward the manufacturer/consumer ($p \leq .001$), than it did attributions of blame toward a situation ($p \leq .02$) or UC ($p \leq .01$). However, given that a significant amount of variance in each dependent variable was explained by the proposed model, some general level of support is provided for its hypothesized relationships, and more specifically, justification is provided for interpreting each independent variable's predictive ability (Neter, Wasserman, and Kutner 1985). Specific results, by independent variable, for each hypothesis follow.

Hypothesis Testing

Safety Regulations. Two hypotheses (5-6) concerned attributional effects of a manufacturer meeting (coded 0) or exceeding (coded 1) government imposed safety regulations. Essentially, these hypotheses predict that manufacturers perceived as exceeding safety standards will experience (1) lower levels of blame directed toward themselves and higher levels directed at the product user (H5), as well as (2) lower levels of blame directed toward a situation in which an injury occurred (H6), than will firms merely meeting those standards. The first row of path coefficients shown in Table 3 supports H5 (-.27) but fails to support H6 (-.03). Thus, while exceeding safety standards may help alleviate some blame from manufacturers at the expense of consumers, it does not appear to influence attributions toward the usage situation.

Warning Labels. A second set of hypotheses involves the influence of warning labels. As predicted by H1 a negative relationship (-.21) is found between use of warning labels and unanticipated consequences

(UC). More simply, this relationship indicates that warning labels do provide consumers with information concerning potential results from misuse. In contrast, consumers may not consider these results when warning labels do not accompany a purchase. Additionally, as predicted by H7, a negative relationship (-.21) is observed between use of warning labels and attributions of blame toward a manufacturer. Thus, by employing warning labels, marketers may be perceived as somewhat less responsible for a product-related injury.

Promoting Safety. One hypothesis concerns the use of safety as an appeal in ads and promotions. Hypothesis 2 indicates that safety appeals may give consumers a sense of security making injuries more unforeseeable. The positive path coefficient (.18) between the safety manipulation and UC supports this hypothesis. In turn, safety as an appeal may affect attributions of blame through its ability to make an injury more unanticipated.

Unanticipated Consequences (UC). Two hypotheses concern the direct effect of UC on attributions of blame. Hypothesis 3 predicts higher levels of blame toward manufacturers when an injury is more unanticipated and is strongly supported in this analysis. A positive path coefficient of .63 is observed between UC and attributions of blame toward manufacturers indicating that when a product-related injury occurs, manufacturers (consumers) are more likely to be blamed under high (low) levels of UC. Further, this significant path accentuates the effects of warning labels on attributions toward a manufacturer/consumer. The indirect, or intervening, effect of UC on this relationship contributes an additional influence of -.13 or (-.21 X .64) to the effect of warning labels on attributions of blame toward a manufacturer/consumer yielding a total contribution of -.34 to the total zero order correlation between these two variables. Thus the theoretical relationship between warning labels and attributions of blame on the manufacturing/consumer construct is sensitive to the intervening presence of unanticipated consequences.

Additionally, H4 proposes lower levels of attribution of blame toward the situation when an injury is highly unanticipated. Consistent with this hypothesis, a significant negative relationship is found between UC and situational blame. That is, consumers tend to blame the situation less when a product-related injury is unanticipated. Further implications of these results follow.

DISCUSSION

This study demonstrates that managerial actions do affect consumers' assignment of responsibility for product mishaps. More interestingly, since the types of activities considered in the study should have little effect on due process in liability trials according to the doctrine of strict liability, it appears that the mental arithmetic of consumers when making personal causal attributions of blame does not resemble the legal process of strict liability. That is, the reasoning used by consumers does not coincide with the reasoning of the court. If

additional research were to prove consistent with this result, it may well spark a debate among policy makers over the reasonableness of recent product liability legislation.

A number of implications for corporate policy makers flow more directly from the experimental manipulations. For example, using warning labels to make consumers more aware of potential dangers appears one way to alleviate some of the negative results of product liability suits. The results of this study showed a marked reduction in blame attributed to manufacturers when a warning label was involved in the product-injury scenario. And while in some cases the use of warning labels is predicated upon previous court findings, the findings with regard to safety regulation indicate that going over and above legislative guidelines can reduce negative repercussions of product injuries. In the present study, firms portrayed as incorporating safety features above and beyond what is required legally experienced lower levels of causal attributions of blame than did firms simply meeting government standards. In addition, these findings may be indicative of how severe the impact of negative public publicity surrounding product injury situations will be (Griffin, Babin and Attaway 1991). Publicizing its use of warning labels and extra safety precautions may alleviate some of the fall out from these unfortunate situations.

Further, some evidence is presented which suggests that stressing safety as a feature of a product can create a sense of security among consumers and reduce consumer perceptions of unanticipated negative consequences from use of a product. Left for further study is the potential impact that steps taken to deal with product safety have on consumer purchase intentions and behavior. It is quite possible that tactics useful for dealing with the high costs of product liability (e.g., warnings) have a negative impact on sales. If so marketers are faced with trading off potential liability for potential sales.

Another interesting issue investigated in this paper deals with how an unanticipated event affects relationships between marketer actions and consumer attitudes. Evidence of this effect is demonstrated by the secondary influence of warnings on unanticipated consequences of product use, which in turn acts as an additional causal factor on attributions of blame toward the manufacturer. Practically speaking, further steps taken by marketers to increase consumer awareness of hazardous product uses can allay some attributions of blame toward the manufacturer. However a similar caveat as mentioned above, with respect to these actions impact on purchase intentions, holds here.

Additionally, the study of unanticipated negative events has some relevance for basic marketing research. The impact of UC demonstrates that like unexpected favorable events (Howard and Barry 1990), unexpected negative events also influence consumer decision processes. Further, although no direct comparisons are made in this study, an interesting issue related to this research concerns direct comparisons of the impact of unexpected positive versus unexpected negative events. As

discussed earlier, a substantial theoretical base (e.g., Tversky and Kahneman 1981) supports a more severe effect of losses compared to gains. Also, in terms of consumers' post-purchase product evaluations, unanticipated negative events may create consumer reactions which are beyond the scope of a traditional disconfirmation paradigm. Further studies are needed which directly compare the validity of the disconfirmation model to a model based on unanticipated rather than expected events.

CONCLUSIONS

The area of product safety clearly presents a heavy regulated operating environment for marketers and consumers. These regulations, the current legal doctrines guiding product liability suits, as well as the high cost of product liability, serve to limit alternatives for dealing with these issues. However, results presented in this paper indicate that marketer actions do have an impact on consumer attributions of responsibility. In addition to these results, some interesting theoretical issues are raised concerning the effect of unanticipated negative events. Clearly, unanticipated consequences do affect consumer decision processes, however, more work is needed to understand more closely the nature of this effect.

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Extended Warranties: A Behavioral Perspective

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ABSTRACT

Extended warranties have become a major revenue source for durable goods retailers, prompting some retailers to use questionable practices in an attempt to maximize their sales. This paper develops an integrated framework based on prospect theory and protection motivation within which to examine these practices. Propositions are presented with respect to: (1) individual consumer difference variables which contribute to a predisposition to the extended warranty offer; and (2) the impact of (a) the timing of the extended warranty offer and (b) the use of fear appeals in the offer on consumer perceptions of product quality and value. Implications for retailers are offered.

INTRODUCTION

Retailers in the past decade have increasingly offered extended warranties on durable consumer goods. These warranties provide retailers with an additional source of revenue in a market characterized by long repurchase cycles, with prices of extended warranties generally exceeding "...the average expected costs of repair by considerably more than what might be attributed to profit and overhead" (Fox and Day 1988, p. 337). They also offer dealers opportunities for repeat customer contact, with the goal of interesting customers in future purchases (*Advertising Age* 1985). Finally, the marketing of extended warranties offers retailers an opportunity to enhance the image of their store (Kelley et al 1988).

When effectively marketed and implemented, extended warranties offer a win/win situation for consumers and retailers alike. Extended warranties appeal to consumers by reducing perceived risk and assuring consistent and quality service (Bryant and Gerner 1982). Estimates of the number of eligible purchases which include extended warranties range from 30-50% (Koten 1984; Plotkin 1985). However, many retailers have exploited extended warranties as an opportunity for short-term profits, resorting to fear appeals to increase their sales, going so far as to overstate the likelihood of a product breakdown (*Sales & Marketing Management* 1985). In doing so, these retailers typically eschew marketing the extended warranty as an added service feature, opting instead to present this optional service after the purchase decision has been made.

How do consumers evaluate the extended warranty purchase decision? What consumer difference variables affect this decision? What impact does presentation timing have on the consumer's transaction utility? This paper seeks to provide answers to these questions by: (1) reviewing and integrating the relevant literature; (2) incorporating testable propositions into a sequential decision-making model based on protection motivation theory and prospect theory, and (3) exploring the impact of (a) the timing of the extended warranty offer, particularly in the context of cognitive dissonance and

the importance of post-purchase feedback in the consumer decision-making process, and (b) the use of fear appeals aimed at heightening the consumer's desire for risk reduction in the context of the consumer's overall retail experience. Finally, managerial policy implications are offered.

THEORETICAL BACKGROUND

Literature on the marketing of extended warranties and service contracts is limited. The Center for Policy Alternatives at the Massachusetts Institute of Technology conducted a major descriptive study on warranties and service contracts for consumer durables (Center for Policy Alternatives, 1978). Day and Fox (1985) offered a brief review of practices in the sales of service contracts, discussed issues raised in prior research and their own exploratory study, and offered some suggestions on the marketing of service contracts. Bryant and Gerner (1978) dealt with the economics of service contracts and developed an economic decision making model (1982) for the purchase of a service contract. Kelley and Conant studied the perceptions of consumers (1987) and the perceptions of retailers (1988) toward extended warranties, and followed up with a broad-based study (1991) of the perceptions of consumers and retailers. No attempt to date, however, has incorporated extant theory with the limited findings to produce a behavioral model of the extended warranty purchase decision.

Perceived Risk

Empirical evidence suggests that consumers view extended warranties as insurance to reduce perceived risk (Kelley and Conant 1987, 1991). Risk associated with consumer purchase includes dimensions of performance, financial, psychological, social, convenience loss, and physical risk (Kaplan, Szybillo and Jacoby 1974). An extended warranty specifically attenuates three of these dimensions: performance risk (Will it work properly?); financial risk (Will it cost too much to maintain it?); and convenience loss (How much time, convenience, and effort will be required if the product does fail?).

Perceived Quality

Perceived quality is a higher level abstraction that in some cases resembles attitude (Zeithaml 1988). Steenkamp (1990) proposes that quality beliefs can be formed through descriptive belief formation (by actually experiencing the product's experience attributes), informational belief formation (accepting information provided by outside sources), or inferential belief formation (based on prior knowledge of the product category), with consumers most often engaging in inferential belief formation. Brucks and Zeithaml (1987) have identified six abstract dimensions of product quality which can be generalized across categories of durable goods (the

domain for this paper): ease of use, functionality, performance, durability, serviceability, and prestige.

Protection Motivation Theory

Much of the research on insurance purchase behavior has focused on protection motivation. According to protection motivation theory (Rogers 1975), a fear appeal can be broken down into three components, each one initiating a cognitive appraisal process: (1) the magnitude of noxiousness of the depicted event, (2) the conditional probability that the event will occur in the absence of adaptive action, and (3) the effectiveness of a coping response that might avert the noxious event.

In the case of an extended warranty, the fear associated with a probabilistic product breakdown depends on the consequence of a breakdown, the probability of a breakdown occurring, and the perceived efficacy of the extended warranty in protecting against the loss incurred due to a breakdown. Slovic et al. (1977) found that people buy more insurance against events having a moderately high probability of inflicting a relatively small loss than against a low probability, high loss event. Slovic et al. (1978) found that protective behavior is influenced more by the probability of a hazard than by the magnitude of its consequences, and that people are not inclined to protect themselves voluntarily against very low probability threats. Accordingly, consumers who believe that there is a high likelihood that a product will break are more likely to purchase an extended warranty.

Prospect Theory

According to prospect theory, making a choice under risk involves a two-step process: (1) framing and editing and (2) evaluation. In the first phase, the decision-maker simplifies (edits) the problem into distinct prospects which are then framed according to: (1) the way the choice set has been externally framed during presentation (e.g., a fear appeal emphasizing the potential losses associated with a product breakdown would create a negative frame); and (2) how the decision-maker frames the decision internally based on an individual reference point (e.g., a risk-seeking decision-maker would frame a risky alternative more favorably than a risk averse decision-maker). In the evaluation phase, the framed prospects are evaluated and the most appealing prospect is chosen in one of two methods: (1) identifying the dominant prospect if dominance is apparent or (2) determining the prospect with the greatest value when dominance is ambiguous. The prospect of greatest value is determined by an S-shaped function that passes through the reference point, is concave for gains and convex for losses, and is steeper for losses than for gains (Tversky and Kahneman 1986). This implies that decision-makers in general are risk-averse when prospects have been framed as gains and risk-seeking when prospects have been framed as losses.

AN INTEGRATED MODEL

In the context of an extended warranty purchase decision, protection motivation theory and prospect

theory have comparable implications (see Figure 1). The risk associated with the decision in prospect theory parallels the noxiousness of the event in protection motivation theory. The perceived noxiousness of the event (product breakdown) can be viewed as the perceived consequences of a breakdown; that is, the risk associated with the financial and convenience loss in the event of a breakdown. The probability associated with the event occurring is consistent with both theories and is associated with the perceived performance risk. The efficacy of the coping response (extended warranty) would be incorporated into the framing and editing process in prospect theory.

The Quality-Risk Connection

Perceived risk and perceived quality also have many similarities: both are multidimensional constructs involving higher level abstractions; both are salient during the consumer decision-making process; and both share similar (at times identical) dimensions. Furthermore, we propose that perceived quality is a moderator variable that contributes to the determination of perceived risk (along with individual difference variables). For example, it is quite likely that a consumer considers quality cues that signal performance and durability quality to evaluate the perceived performance risk (Will it work properly now and in the future?) associated with a durable good purchase. Likewise, when evaluating financial risk, durability cues are used, and when evaluating convenience loss risk, serviceability cues are used. This connection leads to the following propositions on the role of quality dimensions as antecedent to assessment of perceived risk:

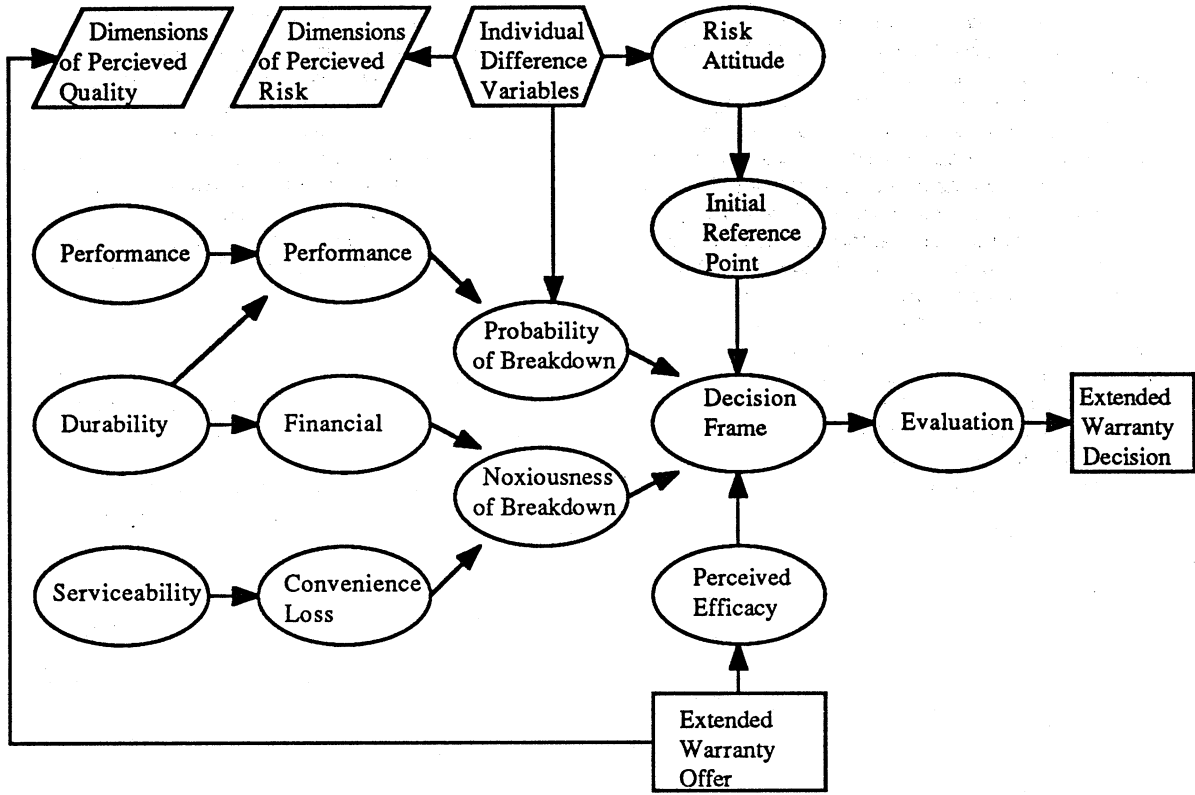
- PIA*: The perceived risk associated with a purchase decision is largely determined by the perceived quality of the product.
- PIB*: The perceived performance risk associated with a purchase decision is largely determined by the perceived performance quality and durability of the product.
- PIC*: The perceived financial risk associated with a purchase decision is largely determined by the perceived durability of the product.
- PID*: The perceived convenience loss risk associated with a purchase decision is largely determined by the perceived serviceability of the product.

In addition to perceived quality, individual difference variables (including risk attitude and initial reference point) and (the perceived efficacy of) the extended warranty offer determine the extended warranty decision.

Individual Difference Variables

Risk Attitude. Qualls and Puto (1989) noted that some consumers are immune to framing effects, concluding that, "These buyers appear to have a risk

FIGURE 1
An Integrated Extended Warranty Decision Model



attitude that remains invariant across decision contexts." (p. 190) Accordingly,

- P2A: Some number of very risk-averse consumers would purchase an extended warranty under any circumstances.
- P2B: Some very risk-seeking consumers would not buy an extended warranty under any circumstances.
- P2C: Most consumers would frame and evaluate the decision.

To frame and evaluate the extended warranty decision, it is first necessary to assign a probability to the likelihood that the product would break down in the time frame specified in the extended warranty. Since the exact likelihood that a product will break down is unknown, the consumer estimates the probability on the basis of experience and/or information available on the product class. Buyers differ in the extent of experience with the product class and the amount of information relating to product performance that they have acquired. Four types of consumers assigned to a 2 (high/low levels of experience) X 2 (high/low levels of search) matrix will be considered.

High Experience/Low Search. In the case of the extended warranty purchase decision, relevant information would be information regarding the

performance, durability and serviceability of the product. Prior ownership within the product class and/or of the brand would lead to prior beliefs for the product class, which in turn would be attributed to the brand currently under consideration through inferential belief formation (Steenkamp 1990). Positive experiences with the product class would have two effects: (1) the assignment of the probability of future breakdowns would be attenuated, as suggested by the availability heuristic (Tversky and Kahneman 1973) and (2) the perception of prior gains would lead to risk-taking behavior and rejection of the extended warranty (cf. Thaler and Johnson 1990).

High Experience/High Search. If prior experience and beliefs with the product class exist, external search is expected to be diminished (Beatty and Smith 1987) and to confirm rather than disconfirm prior beliefs (John et al., 1986; Snyder and Swann, 1978). Therefore, external search would be expected to have little impact on consumers with prior beliefs and consumers with high experience/high search should act similar to those with high experience/low search. Therefore,

- P3A: The single best predictor of quality and risk (i.e., product non-performance) is prior experience with the product class.
- P3B: The existence of prior gains (positive experiences with the product class)

would predict rejection of the extended warranty.

P3C: The existence of prior losses (negative experiences with the product class) would predict acceptance of the extended warranty.

Low Experience/Low Search. Consumers lacking prior experience who undertake little or no search would likely lack motivation (involvement) and ability. According to the Elaboration Likelihood Model (Petty and Caccioppo 1979), these consumers would have processed information mainly along the peripheral route and would likely rely on the salesperson to assign a probability of non-performance. In this case, the most important issue would be the credibility of the salesperson. Thus,

P4: In the absence of prior experience or search, the probability of the sale of an extended warranty will depend primarily on the source credibility of the salesperson.

Low Experience/High Search. In the absence of prior experience and beliefs, perceived quality would depend on either descriptive belief formation (if available) or informational belief formation. Since the salient dimensions for the extended warranty decision (especially durability and serviceability) depend primarily on credence attributes, in the absence of prior beliefs, informational belief formation is most likely (Steenkamp 1990). Secondary information could come from multiple sources: exposure to formal evaluative information (e.g., *Consumer Reports* repair and cost indices), informal evaluative information (from friends), advertising messages, an extensive search process, or the current salesperson. Since the current salesperson's input comes last (temporally), it is likely that by this time the consumer undertaking extensive search will have already existing beliefs regarding the purchase under consideration.

P5A: In the absence of prior gains or losses, the single best indicator of quality belief formation is extensive search or exposure to evaluative information.

Search Strategies. A consumer who has gone through extensive information search prior to making the product choice decision is likely to be highly involved with low product class knowledge (Beatty and Smith 1987); high involvement and the absence of prior experience are sufficient criteria to indicate that product quality information processing would be imperfect (Gotlieb & Swan 1990). Tellis and Gaeth (1990) propose that when information on product quality is not perfect, consumers follow one of three strategies: price-seeking, price aversion, and best value. A price-seeking strategy is based on a perceived price-quality correlation which implies a willingness to "pay for quality." Since quality information is imperfect, s/he is likely: (1) to

purchase a more expensive brand; (2) to use the brand name as a quality cue; (3) to frame the extended warranty as a potential gain (offering increased performance quality and diminished financial and convenience loss); and (4) according to prospect theory, choose to purchase the insurance.

P5B: In the absence of prior gains or losses, consumers who use a price-seeking strategy would be more likely to purchase an extended warranty.

A price aversion strategy, on the other hand, discounts the value of available quality information and uses (low) price as the sole choice criterion. Under this strategy, the consumer is likely: (1) to purchase the least expensive brand; (2) to frame the extended warranty as a loss (i.e., an additional cost); and (3) choose to reject the insurance.

P5C: In the absence of prior gains or losses, consumers who use a price aversion strategy would be more likely to reject an extended warranty.

Since price-seeking and price aversion strategies are unidimensional strategies, there is no reason to expect that the timing of the extended warranty offer would complicate the decision process. However, the timing of the extended warranty offer is likely to be salient to consumers using the more complex best-value strategy which seeks to maximize perceived value as determined by intrinsic and extrinsic attributes, perceived quality, and perceived sacrifice (Zeithaml 1988).

Timing of the Offer and Best Value

If the extended warranty is offered prior to or along with the product, the buyer is aware of the cost and terms of the extended warranty while determining the perceived quality and value of the product. The extended warranty offer represents an add-on bundle whereby the value (and sacrifice) of the warranty is added to the value of the product under consideration (cf. Guiltinan 1987). Since the extended warranty offer is made in general (with respect to the retailer's entire product line), the add-on bundle will not be perceived as being specific to the chosen product. The decision to purchase the bundle would depend on whether the perceived value of the bundle exceeded the perceived value of the unbundled product, and the extended warranty service would probably be viewed as an add-on service feature of this particular retailer (Kelley et al 1988). For the best value shopper encountering this optional service prior to or along with the product, the extended warranty decision is indeterminate.

On the other hand, if the subject of the extended warranty is broached after the purchase, the add-on bundle would be seen as being specific to the chosen product, thereby changing perceptions of the value of and sacrifice for the product. In this context, the following propositions are offered:

- P6A: An offer of extended warranty options prior to purchase of a product will not alter the perceived value of and perceived sacrifice for the product.
- P6B: Exposure to the extended warranty option after the commitment to purchase the product will alter the perceived value of and sacrifice for the product.

Post-Purchase Cognitive Dissonance.

Attempts to sell an extended warranty after the purchase decision has been made would form an extraneous input at the post-decision behavior stage, contributing to a post-purchase re-evaluation of the product. The introduction, at this stage, of new information regarding the possibility of non-performance and the need for the buyer to seek protection from this risk exposes a new, undesirable aspect of the product just purchased. The extended warranty would represent a new extrinsic attribute which would undermine the perceived quality and value of the product (Day and Fox 1985).

All three major models of consumer decision making (Nicosia; Engel, Kollat and Blackwell; Howard and Sheth) recognize the post-purchase experience as feedback into the consumer decision making process. According to Zaltman (1965), a buyer, after the purchase of a relatively specialized and infrequently purchased product, often experiences cognitive dissonance in spite of a careful pre-decision evaluation of competing products. The offer of an extended warranty to insure against failure of a product already purchased adds undesirability to that product.

P7: For the consumer using a best-value strategy:

- (A) Exposure to information on extended warranty options and attempts to sell these contracts after the purchase of a brand would cause a decrease in the perceived quality and value of the chosen brand.
- (B) The post-purchase offer of an extended warranty would introduce cognitions dissonant with the satisfaction derived from the purchase, creating or further aggravating post-purchase cognitive dissonance in the buyer.
- (C) The creation or further aggravation of post-purchase cognitive dissonance would add to the perceived non-monetary sacrifice associated with the product, further diminishing the perceived value of the product.

Fear Appeals & Psychological Reactance. In the post-purchase approach, retailers typically use hard sell tactics, including fear appeals emphasizing the risk of non-performance, the attendant financial loss that may occur during the life of the product, and how the extended warranty can insure against such losses. However, increasing the threat of negative

consequences increases persuasion only when source credibility is high; when the credibility of the source is relatively low, any level of fear arousal is non-persuasive (Sternthal and Craig 1974). Pressure to purchase often results in a boomerang effect (Clee and Wicklund 1980; Brehm and Brehm 1981), and hard sell messages foster an inverse relationship between perception of persuasive intent and favorability toward the consumer products being promoted (Robertson and Rossiter 1974).

The presence of cognitive dissonance (in the post-purchase scenario) would likely affect source credibility and acceptance of such fear arousing messages. Given the presence of cognitive dissonance and the tendency to perceive new information selectively, there could be an increase in confidence in the decision just made and consequent discounting of the negative information being presented by the seller. The seller's effort to induce a protection motivation response would lead to attribution of persuasive intent, thereby further reducing source credibility and chances of acceptance of the recommendations. Given the already existing need for assertion of confidence in the product purchase to reduce dissonance, persistence and pressure from the seller would be construed as an attempt to curtail choice and force a particular behavior, thereby fostering reactance behavior.

- P8: For the consumer using the best-value strategy, the creation (or aggravation) of cognitive dissonance by the post-purchase offer of an extended warranty would lead to rejection of the extended warranty offer.

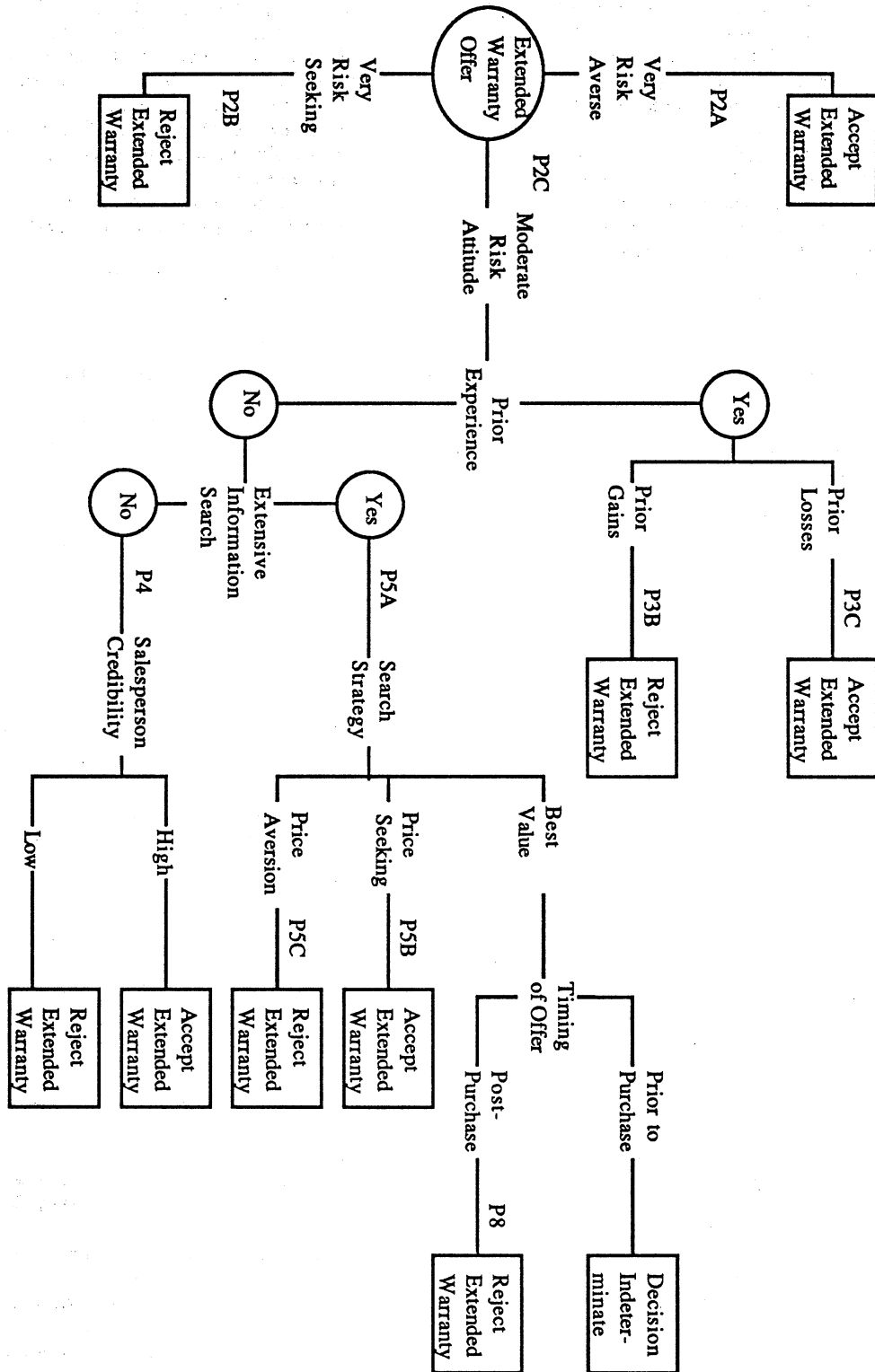
Figure 2 summarizes the propositions which have a direct impact on the extended warranty decision.

The Buyer's Experience

The preceding section discussed the possible outcomes of attempts to sell an extended warranty, and the influence of cognitive dissonance on the effectiveness of sales appeals. The appraisal of buyer characteristics and categorization of cues about the buyer have been proposed as determinants of selling effectiveness (Szymanski 1988), and depending on the accuracy of appraisal of buyer characteristics and suitable sales communication by the seller, a person may or may not buy the extended warranty. In either case, the buyer has been exposed to an additional element of risk, dissonance has been created immediately after the purchase, and s/he is likely to have been put through some emotional tension due to this exposure. This tension would cause a decrease in transaction utility and an increase in nonmonetary sacrifice leading to lower overall satisfaction with the purchase experience (Baker 1990).

- P9: The offer and rejection of an extended warranty after the purchase of a product would lead to lower overall satisfaction with the retail service experience.

FIGURE 2
A Sequential Decision Making Model



IMPLICATIONS AND CONCLUSIONS

Extended warranties offer durable goods retailers a source of profits to supplement their main activity of product sales. Some retailers resort to high pressure sales tactics to sell extended warranties to customers who have just purchased a product by arousing protection motivation against possible losses due to product breakdown. Retailers need to understand consumers' decision-making processes and the impact of their efforts to sell an extended warranty in this perspective. This paper explored some of the individual difference variables which mediate the extended warranty decision process as well as behavioral aspects relating to the timing of the extended warranty offer and the use of fear tactics in that offer. Subject to verification, the preceding discussion suggests that there are three types of consumers who are predisposed to purchase an extended warranty: those who are inherently very risk averse; those who have experienced prior losses in the product category; and those who use a price-seeking search strategy. Two categories of consumers -- one who has no previous experience and conducts little or no search and one who uses a best value search strategy -- may be susceptible to salesperson persuasion if source credibility is high.

Even though probability of non-performance remains the most important feature considered in making the decision, Rogers and Mewborn (1975) found the efficacy of the coping response to be the largest influencing variable for adoption of the communicator's recommendations. Therefore, the salesperson's message should focus on the benefits of the extended warranty rather than the deleterious effects of product non-performance. The use of fear appeals runs the risk of decreasing the perceived value of the purchase transaction and the overall retail experience. The overall dissatisfaction with the shopping experience could discourage future patronage since significant correlation exists between (a) satisfaction with a shopping experience and post-shopping attitudes; and (b) post-shopping attitudes and future shopping intentions (Swan 1977). At a time when retailers need to focus on service quality and customer loyalty (Berry 1986), the jeopardizing of customer goodwill by the creation of dissatisfaction should be avoided.

Three conclusions regarding the timing of the extended warranty offer are offered: (1) *at least* for the consumer using a best-value strategy, a post-purchase offer introduces or aggravates cognitive dissonance, increases non-monetary sacrifice and decreases the perceived quality and value of the product; (2) it is likely that this dissonance leads to source derogation diminishing the salesperson's efficacy; and (3) it is likely that this added aggravation is attributed to the retailer, thereby reducing the likelihood of future patronage. In the long term interest of continued patronage (especially relevant to retailers of products with quicker obsolescence), the practice of offering extended warranties, particularly in conjunction with fear appeals, is questionable.

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Subject Index

Subject	Session Numbers
ACR History	6.7
Advertising Effects	1.1, 1.4, 3.4, 3.5, 3.7, 4.1, 5.3, 7.3, 8.2, 10.1, 10.4
Advertising Research	1.3, 1.7, 8.2, 8.6, 9.3, 9.4
Aesthetics	6.4, 8.2, 9.4, 9.6
Affect	1.7, 3.4, 4.1, 4.6, 5.3, 6.4, 7.6, 8.2
Attitudes	4.1, 5.3, 7.3, 10.3
Attribution Theory	4.1, 8.6, 9.2, 10.6
Behavioral Intention Models	10.4
Brand Loyalty	4.6, 8.1
Brand Preference and Choice	2.3, 3.6, 8.6, 10.1
Buyer-Seller Interaction	10.4
Categorization	4.6, 10.3
Causal Modeling Issues	3.6, 6.3, 9.3
Charity and Gift Giving	2.4, 7.1
Clothing and Fashion	7.1, 3.7
Cognitive Processing	2.5, 3.7, 4.4, 10.1, 10.2, 10.4
Cognitive Response	3.1, 10.1, 10.4
Cognitive Structure	10.2
Comparative Advertising	10.2
Compulsive Consumption	6.2, 7.5
Conjoint Analysis	9.3
Consideration Sets/Evoked Sets	2.2, 3.5
Consumer Behavior Theory	2.4, 3.3, 3.4, 3.5, 6.6, 7.3, 7.6
Consumer Choice Models	2.2, 2.7, 6.6, 8.1, 8.6
Consumer Culture	2.4, 2.6, 3.2, 8.2, 9.4, 10.5
Consumer Education and Information	3.1
Consumer Expenditure Surveys	7.6
Consumer Socialization	3.4
Content Analysis	1.3, 2.6
Contextual Effects	1.5, 9.5, 1.7
Cross-Cultural Research	1.3, 4.7, 6.3, 6.4, 8.1, 9.3, 10.5
Decision Making	2.5, 2.7, 7.3, 7.4, 8.6, 9.5, 10.6
Economic Psychology	3.5
Emotional and Fear Appeals	3.4
Energy	7.1, 7.5
Ethnicity	10.5
Ethnography	3.3, 8.5
Experiential Consumption	3.3, 4.4, 5.4, 8.5, 9.6
Families and Marital Dissolution	7.4, 7.5
Family Decision Making	4.7, 7.4
Family Life Cycle	7.5
Feminist Issues	6.6, 10.5
Health and Safety	9.2
Hedonic Consumption	4.4, 9.4
Imagery	2.6, 8.2, 9.6
Implicit Memory	10.2
Impression Formation	6.4, 1.7
Inference	4.1
Information Processing	1.7, 3.7, 4.1, 5.3, 7.3, 9.5, 10.1, 10.4
Information Search	7.1, 7.3, 9.6
Innovation and Diffusion	2.4
Introspective Methods	10.5
Involvement	1.7, 2.3, 9.2, 10.1
Leisure and Recreation	9.6
Life Cycle	7.4
Lifestyle and Psychographics	4.7
Literary Criticism and Cons. Research	2.6, 5.4, 6.4
Market Segmentation	4.7, 6.3
Memory	1.7, 2.2, 3.1, 5.3, 5.4, 8.2, 10.2
Mental Workload	10.1

Multi-Attribute Models	3.5, 8.6
Music	9.4, 10.3
Negative Information	5.3, 10.6
Nostalgia	5.4
Perceived Risk	2.7, 10.6
Personality	4.7
Persuasion	1.4, 3.4
Philosophy of Science	10.5
Photography	6.4
Physiological Measures	10.3
Post Modern Research	2.6, 3.2, 5.4, 6.2, 8.2
Presidential Address	
Price Research	8.4
Product Disposition	7.1
Product Knowledge and Expertise	3.1
Product Perception	2.3, 4.1
Promotion	8.1
Proxy Reporting	1.5
Psycholinguistics	3.7
Psychometric Tests/Measures	10.4
Public Policy	6.2, 7.5
Public/Not for Profit Issues	1.1
Reference Groups	7.6, 2.4
Retailing and Store Image	2.3
Ritual	3.3
Schemata	10.2
Scripts	6.4, 4.4
Self-Perception	2.6, 6.2, 10.5
Self-Referencing	4.1, 4.4, 9.1
Semiotics	2.4, 2.6, 5.4, 6.2, 6.4, 9.6
Sensory Perceptions	5.4
Services	7.6, 6.4, 9.2
Sex and Consumption	4.4
Sex Roles	1.7, 6.6, 7.4, 9.4
Situational Effects	6.3, 6.6, 7.6, 10.3
Social Class	8.1
Social Influence	10.6
Social Issues	1.1, 2.6, 7.5
Sociocultural Analysis	3.2, 3.3, 4.7, 6.3, 7.5
Source Credibility	5.3
Spatial Research	4.4
Survey Research Issues	4.7, 10.4
Symbolism	1.5, 2.4, 2.6, 4.4, 6.2, 9.6, 10.6
Television Advertising	9.4, 9.3
Time	2.7, 5.4, 9.4, 10.3
Validity and Reliability	2.3, 6.6, 8.4, 8.6, 9.2, 9.3, 10.5
Values and Beliefs	3.4, 4.7, 5.4, 9.3
Warranties	10.6
Word-of-Mouth	7.6

Author Index (Conference Sessions)

Name	Session #	Name	Session #
Ahmed, Irfan	10.6	Hattwick, Patricia	1.3
Altsech, Moses B.	9.4	Havlena, William J.	5.4
Antes, David	4.7	Higham, Fiona	7.1
Arce, Carlos H.	6.3	Hill, Ronald Paul	7.5
Babin, Laurie A.	8.2	Hiroshi, Kashio	9.3
Babin, Barry J.	10.6	Hirsch, Alan R.	5.4
Baddoura, Daisy	5.3	Hirschman, Elizabeth C.	2.4, 6.2, 7.5
Baer, Rob	9.2	Holak, Susan L.	5.4
Bahn, Kenneth D.	10.2	Holden, Stephen J.S.	2.2
Baker, Sara M.	10.1	Holt, Douglas	3.3
Balch, Tamara	7.1	Hughes, G. David	8.6
Baumgartner, Hans	8.2	Hulland, John S.	3.5
Bearden, William O.	8.4	Hyatt, Eva M.	4.4
Beaumier, Glenn	4.7	Iacobucci, Dawn	7.6
Bickart, Barbara A.	1.5	Jaffe, Françoise	7.4
Biswas, Abhijit	8.2	Jill, Donna J.	9.2
Blair, Elizabeth	9.4	Kahle, Lynn R.	4.7
Blair, Johnny	1.5	Kaicker, Ajit	8.4
Bone, Paula	7.6	Kanetkar, Vinay	3.5
Boninger, David S.	10.1	Kanwar, Rajesh	8.1
Boyd, Thomas C.	8.6	Kaufman, Carol	4.7
Bridges, Sheri	3.6	Kellaris, James J.	9.4
Brill, Jonathan E.	10.4	Kernan, Jerome B.	6.2, 6.7
Bristor, Julia M.	10.5	Kim, Young Chan	7.1
Brown, Tom J.	10.2	Kleine, Robert E.	6.2
Burns, Alvin C.	8.2	Kleine, Susan	6.2
Carsky, Mary	6.6	Klenosky, David B.	8.6
Celsi, Richard L.	8.5	Kosenko, Rustan	9.2
Chebat, Jean-Charles	5.3	Laroche, Michel	5.3
Chi, Annie	5.3	Leavitt, Clark	5.3
Claiborne, C. B.	4.4	Lee, Wei-Na	6.3
Cohen, Judy	4.7	Levenson, Stacey	3.3
Cooper-Martin, Elizabeth	9.6	Liu, Ruiming	4.7
Dabholdar, Pratibha A.	7.6	Lord, Kenneth	10.4
Darden, William R.	10.6	Louie, Therese A.	1.7
Debevec, Kathleen	4.1, 7.4	Lowrey, Tina M.	3.7, 7.1
Deighton, John	6.4	Luce, Mary Francis	2.5, 8.1
DeMoss, Michelle	2.4	Lutz, Richard J.	2.2
Dhar, Ravi	9.5	Machleit, Karen A.	4.1
Dickson, Peter R.	10.4	MacInnis, Deborah J.	7.3
Dub*, Laurette	3.6	Mack, Stacey	3.3
Ellis, Seth R.	9.3	Manria, Lalita A.	1.1
Engleberg, Mosha	9.3	Mavis, Brian E.	9.2
Feick, Lawrence	3.1	McAlexander, James H.	7.5
Fellerman, Ritha	7.4	McCarthy, John A.	1.3
Filiatrault, Pierre	5.3	McGill, Ann	7.6
Firat, A. Fuat	3.2	McKeage, Kim K. R.	3.4
Fisk, Raymond P.	6.4	McQuarrie, Edward F.	2.3
Fournier, Susan	4.7	Menon, Geeta	1.5
Gardner, Meryl P.	1.1	Mick, David	2.4
Golden, Linda L.	2.3	Mothersbaugh, David L.	3.1
Goodwin, Cathy	7.4, 9.6	Mowen, John C.	2.7
Gould, Stephen J.	1.4, 4.4, 10.5	Munson, J. Michael	2.3
Gray, Ken	4.6	Najjar, Debbie	3.4
Griffin, Mitch	10.6	Natarajan, Rajan	6.6
Grove, Stephen J.	6.4	Nedungadi, Prakash	3.5
Guiry, Michael	9.2	Oliver, Richard L.	3.4
Han, Jin K.	10.1	Otnes, Cele	7.1
Hansen, David E.	2.7	Owen, Robert S.	10.1
Hatala, Mark N.	9.4	Pagiavlas, Notis	8.1

Name	Session #	Name	Session #
Pandya, Anil M.	2.4	Sirdeshmukh, Deepak	4.1
Parameswaran, Ravi	9.3	Sirgy, M. Joseph	4.4
Park, C. Whan	3.1	Smith, Melinda	8.4
Peltier, James W.	1.7	Solomon, Michael R.	2.6
Perkins, W. Steven	8.6	Srinivasan, Narasimhan	7.3
Petkus, Ed	10.6	Stern, Barbara	2.6, 5.4, 6.4
Pham, Michel T.	1.7	Stinerock, Robert N.	10.5
Pierson, Rosalind	9.3	Stoffelmayr, Bertram	9.2
Pincus, Jeremy D. R.	3.4	Strathman, Alan	10.1
Pisharodi, R. Mohan	9.3	Suarez, Helen	3.3
Prakesh, Ved	10.4	Sudman, Seymour	1.5
Price, Lydia J.	5.3	Thorson, Esther	5.3
Punj, Girish	7.3	Tikoo, Surinder	7.3
Qualls, William	7.4	Tucker, Elizabeth	9.2
Ray, Michael L.	10.3	Ulhaque, Ehsan	10.2
Reinhardt, Daniel	3.3	Um, Koog-Hyang Ro	6.3
Richins, Marsha L.	3.4	Unnava, H. Rao	4.1
Rifon, Nora J.	9.2	Urbany, Joel E.	8.4
Roberts, Scott D.	7.5	Vacker, Barry	9.6
Romeo, Jean B.	4.1	VandenBergh, Bruce G.	2.6
Rucker, Margaret	7.1	Venkatesh, A.	2.4
Sahni, Arti	4.1	Voss, Glenn B.	10.6
Saliba, Slimen	3.7	Walker, Beth	9.1
Sanyal, Abhijit	10.2	Wansink, Brian	10.3
Sauer, Paul L.	10.4	Warshaw, Paul R.	6.6
Schenter, Kimberly	7.1	Watkins, Harry	4.7
Schibrowsky, John A.	1.7	Williams, Jerome D.	10.5
Schmitt, Bernd	3.6	Wright, Newell D.	4.4
Schouten, John W.	7.5	Yalch, Richard F.	4.1
Scott, Linda M.	8.2	Yeh, Grace	3.3
Sewall, Murphy	7.4	Yi, Youjae	4.6
Shanteau, James	2.7	Zmud, Johanna P.	6.3
Shapiro, Stewart	7.3	Zuckerman, Mary Ellen	6.6
Sirdesai, Mayur	2.3		

Author Index (Volume XIX)

Name	Page	Name	Page
Ahmed, Irfan	879	Filiatrault, Pierre.....	353
Altsech, Moses B.	725	Fisk, Raymond P.....	455
Antes, David	329	Fournier, Susan.....	329
Arce, Carlos.....	443	Firat, A. Fuat.....	203
Babin, Barry J.....	870	Gardner, Meryl P.....	15
Babin, Laurie A.....	621	Golden, Linda L.....	123
Baddoura, Daisy	353	Goodwin, Cathy.....	532, 739
Baer, Robert.....	673	Gould, Stephen J.....	56, 304, 857
Bahn, Kenneth D.....	782	Gray, Ken.....	319
Baker, Sara M.....	777	Green, Paul E.....	9
Balasubramanian, Siva K.....	489	Griffin, Mitch.....	870
Balch, Tamara.....	488	Grove, Stephen J.....	455
Baumgartner, Hans.....	613	Guiry, Michael.....	666
Bearden, William O.....	629	Haberland, Gabriele S.....	817
Beaumier, Glenn.....	329	Han, Jin K.....	762
Belch, Michael A.....	642	Hansen, David E.....	175
Bergh, Bruce G. Vanden.....	174	Hatala, Mark N.....	719
Bickart, Barbara.....	62, 64	Hattwick, Patricia M.....	34
Biswas, Abhijit.....	621	Havlena, William J.....	380
Bjork, Robert A.....	155	Higham, Fiona.....	488
Blair, Johnny.....	64	Hill, Donna J.....	673
Blair, M. Elizabeth.....	719	Hill, Ronald Paul.....	550
Bless, Herbert.....	72	Hirsch, Alan R.....	390
Bone, Paula Fitzgerald.....	579	Hirschman, Elizabeth C.....	129, 424, 541
Boninger, David S.....	777	Holak, Susan L.....	380
Boyd, Thomas C.....	649	Holbrook, Morris B.....	417
Bridges, Sheri.....	255	Holden, Stephen J. S.....	101
Brill, Jonathan E.....	835	Holt, Douglas B.....	213
Bristor, Julia M.....	843	Hughes, G. David.....	649
Brown, Tom J.....	787	Hulland, John S.....	253
Burns, Alvin C.....	621	Hyatt, Eva M.....	299
Calfee, John E.....	557	Iacobucci, Dawn.....	570
Carsky, Mary.....	464	Jaffe, Françoise.....	522
Castellano, Nadine M.....	489	Jimenez, Rosemary.....	28
Celsi, Richard L.....	636	Kahle, Lynn R.....	346
Chebat, Jean-Charles.....	353	Kaicker, Ajit.....	629
Chi, Annie.....	366	Kanetkar, Vinay.....	251
Claiborne, C. B.....	311	Kanwar, Rajesh.....	589
Cohen, Judy.....	338	Kardes, Frank R.....	407
Cole, Catherine.....	489	Kashio, Hiroshi.....	696
Cooper-Martin, Elizabeth.....	756	Kaufman, Carol.....	338
Costa, Janeen Arnold.....	39	Kellaris, James J.....	725, 730
Cox, Anthony D.....	554	Kernan, Jerome B.....	7, 411, 416
Cox, Dena.....	554	Kim, John.....	407
Dabholkar, Pratibha A.....	563	Kim, Young Chan.....	482
Dacin, Peter A.....	817	Kleine III, Robert E.....	411
Darden, William R.....	870	Klenosky, David B.....	657
Dawar, Niraj.....	116	Kosenko, Rustan.....	673
de Borrero, Melinda Smith.....	629	Laroche, Michel.....	353
de Pyssler, Bruce.....	437	Leavitt, Clark.....	366
Debevec, Kathleen.....	290, 514	Lee, Wei-Na.....	429
Deighton, John.....	462	Levinson, Stacey.....	219
DeMoss, Michelle.....	140	Levy, Sidney J.....	1
Dhar, Ravi.....	735	Liu, Ruiming.....	346
Dickson, Peter R.....	826	Lord, Kenneth R.....	826
Dubé, Laurette.....	255	Louie, Therese A.....	81
Ellis, Seth R.....	688	Lowrey, Tina M.....	270, 323, 482
Engelberg, Moshe.....	696	Luce, Mary Frances.....	161, 584
Feick, Lawrence.....	190, 193	Lutz, Richard J.....	101
Fellerman, Ritha.....	514	Machleit, Karen A.....	279
Fennell, Geraldine.....	28	MacInnis, Deborah J.....	260, 505

Name	Page
Mack, Stacey.....	219
Mani, Gayathri.....	260
Manrai, Lalita A.....	15
Mavis, Brian E.....	679
McAlexander, James H.....	555
McCarty, John A.....	34
McGill, Ann L.....	570
McKeage, Kim K. R.....	229
McQuarrie, Edward F.....	108
Menon, Geeta.....	62, 64
Mick, David Glen.....	140
Mothersbaugh, David L.....	190, 193
Mowen, John C.....	182
Munson, J. Michael.....	108
Najjar, Debbie.....	229
Nakamoto, Kent.....	260
Natarajan, Rajan.....	472
Nedungadi, Prakash.....	251
Newman, Joseph W.....	12
Oliver, Richard L.....	237
Otnes, Cele.....	482
Owen, Robert S.....	770
Ozanne, Julie L.....	396
Pagiavlas, Notis.....	589
Pandya, Anil.....	147
Parameswaran, Ravi.....	706
Park, C. Whan.....	190, 193
Pavia, Teresa M.....	39
Peltier, James W.....	94
Percy, Larry.....	268
Perkins, W. Steven.....	644, 657
Petkus, Jr., Ed.....	861
Pham, M. Tuan.....	85
Pierson, Rosalind M.....	696
Pincus, Jeremy D. R.....	245
Piron, Francis.....	28
Pisharodi, R. Mohan.....	706
Prakash, Ved.....	813
Price, Lydia J.....	359
Punj, Girish.....	491
Qualls, William J.....	522
Ratneshwar, S.....	116
Ray, Michael L.....	806
Reinhardt, Dan.....	219
Richins, Marsha L.....	229
Rifon, Nora J.....	679
Ringold, Debra Jones.....	557
Roberts, Scott D.....	555
Romeo, Jean B.....	290
Rucker, Margaret.....	488
Saegert, Joel.....	28
Sahlins, M.....	78
Sahni, Arti.....	279
Saliba, Slimen.....	275
Sanyal, Abhijit.....	795
Sauer, Paul L.....	826
Sawyer, Alan G.....	116
Schenter, Kimberly.....	488
Schibrowsky, John A.....	94
Schmitt, Bernd H.....	255
Schouten, John W.....	555
Schultz-Kleine, Susan.....	411
Schwarz, Norbert.....	72

Name	Page
Scott, Linda M.....	596
Shanteau, James.....	177
Shapiro, Jon.....	404
Shapiro, Stewart.....	505
Shavitt, Sharon.....	323
Sirdesai, Mayur.....	123
Sirdeshmukh, Deepak.....	284
Sirgy, M. Joseph.....	311
Smith, Ruth Ann.....	296
Solomon, Michael R.....	166, 169
Srinivasan, Narasimhan.....	491, 498
Srull, Thomas K.....	23
Stern, Barbara B.....	169, 388, 450, 452
Stinerock, Robert N.....	857
Stöffelmayer, Bertram E.....	679
Strathman, Alan.....	777
Suarez, Helen.....	219
Sudman, Seymour.....	64
Suerdem, Ahmet.....	207
Thorson, Esther.....	366
Tikoo, Surinder.....	498
Tucker, Elizabeth.....	679
Ulhaque, Ehsan.....	782
Um, Koog-Hyang Ro.....	429
Umiker-Sebeok, Jean.....	46
Unnava, H. Rao.....	284
Urbany, Joel E.....	629
Vacker, Barry.....	746
Vanhuele, Marc.....	155
Venkatesh, Alladi.....	147, 199
Voss, Glenn B.....	879
Walker, Beth Ann.....	664
Wansink, Brian.....	715, 806
Warshaw, Paul R.....	472
Watkins, Harry.....	346
Williams, Jerome D.....	850
Wright, Newell D.....	311, 404
Yalch, Richard F.....	276
Yeh, Grace.....	219
Yi, Youjae.....	319
Zmud, Johanna.....	443
Zuckerman, Mary Ellen.....	464

