

**Proceedings of the  
Society for Consumer Psychology  
2007 Winter Conference**



**February 22-24, 2007  
Bally's Las Vegas  
Las Vegas, NV**

**Editors**

Dawn Lerman, Fordham University  
David Luna, Baruch College

© Copyright 2007, Society for Consumer Psychology

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form, by any means (electronic, mechanical, photocopying, recording, or otherwise) without the prior written consent of the publisher.

Dawn Lerman and David Luna, Editors

### Acknowledgements

We would like to extend our sincerest thanks to the working paper track chairs Tom Kramer and Eric Yorkston as well as to the many reviewers and other volunteers who worked so diligently to make this conference a success. We are particularly grateful to Larry Compeau for his invaluable assistance and to Laura Peracchio, the SCP president, both for her extraordinary guidance and for trusting us with the task of organizing this conference. We also appreciate the time and energy devoted by the many graduate assistants who helped us in tracking papers and managing the review process. A special thanks goes out to Fordham GAs Anna Hollembeak and Sireen Hajj for their assistance with conference planning and logistics.

Finally, we would like to thank our conference sponsors for their support:

Sponsored by  
Lawrence Erlbaum Associates

**Lawrence Erlbaum Associates**



**American Marketing Association**



**Sheldon B. Lubar School of Business,  
University of Wisconsin-Milwaukee**



**Advertising Educational Foundation**



**Empirisoft Research Software**



## Working Paper Track Co-Chairs

Thomas Kramer, Baruch College  
Eric Yorkston, Texas Christian University

## Reviewers

Praveen Aggarwal, University of Minnesota  
Duluth  
Eduardo B. Andrade, UC Berkeley  
Beth Antonuk, Baruch College/CUNY  
Jennifer Argo, University of Alberta  
Dan Ariely, MIT  
Amier Ashkenazi, Unilever  
A. Selin Atalay, The Pennsylvania State  
University  
Rajesh Bagchi, University of Colorado  
Aysen Bakir, Illinois State University  
Tiffany Barnett White, University of Illinois at  
Urbana-Champaign  
Mike Barone, Iowa State University  
Daniel W. Barrett, Western Connecticut State  
University  
Mike Basil, University of Lethbridge (Canada)  
Alokpama (Sonia) Basu Monga, University of  
Texas at San Antonio  
Jennifer Kat Bechkoff, University of Cincinnati  
Colleen Bee, University of San Diego  
Aronte Bennett, NYU  
Christine M. Bennett, University of Minnesota  
Miriam Beruchashvili, University of Nebraska  
Namita Bhatnagar, University of Manitoba  
Pelin Bicen, Texas Tech University  
Lauren G. Block, Baruch College  
Onur Bodur, Concordia University  
Dave Boush, University of Oregon  
S. Adam Brasel, Boston College  
Terry Bristol, Arizona State University  
Anne Brumbaugh, Wake Forest University  
Frederic F. Brunel, Boston University  
Cenk Bulbul, New York University  
Jim Burroughs, University of Virginia  
Oliver Buttner, University of Gottingen  
Margaret Campbell, University of Colorado at  
Boulder  
Jay Carlson, Union Graduate College  
Les Carlson, Clemson University  
Ryall Carroll, Baruch College, CUNY  
Sergio Carvalho, University of Manitoba  
Elise Chandon, Virginia Tech  
Angela Chang, Shippensburg University  
Hannah Chang, Columbia University  
Anindya Chatterjee, Slippery Rock University  
Amar Cheema, Washington University in St.  
Louis  
Hsu-Hsien Annie Chi, Shih Hsin University  
Cecile Cho, Columbia University  
Eddie Clark, Saint Louis University  
Cathy Cole, University of Iowa  
Larry Compeau, Clarkson University  
Carolyn Conifield, University of Vermont  
June Cotte, University of Western Ontario  
Georgiana Craciun, Loyola College in Maryland  
Maria L. Cronley, Miami University  
Sandor Czellar, HEC-Paris  
Darren Dahl, UBC  
Neel Das, Indiana State University  
Kristin Diehl, University of Southern California  
Eric Dolansky, Richard Ivey School of Business  
Xavier Dreze, University of Pennsylvania  
Aimee Drolet, UCLA  
Shuili Du, Boston University  
Adam Duhachek, Indiana University  
Jane Ebert, University of Minnesota  
Kristine Ehrich, Washington State University  
Eric Eisenstein, Cornell University  
Bela Florenthal, Butler University  
Sue Fogel, Depaul University  
Roland Gau, University of Illinois at Urbana-  
Champaign  
Elizabeth Gelfand Miller, Boston College  
Sheri Geringer California, State University-  
Fresno  
Maggie Geuens, Ghent University  
Ayelet Gneezy, University of Chicago  
John Godek, University of Oregon  
Stephen Gould, Baruch College  
Elad Granot, Cleveland State University  
Jill Griffin, University of Evansville  
Julie Anna Guidry, LSU  
Reetika Gupta, Lehigh University

- Ryan Hamilton, Northwestern University  
Tracy Harmon, University of South Florida  
James E. Harris, Saint Norbert College  
Paul Herr, University of Colorado  
Donna L. Hoffman, Vanderbilt University  
Stephen Holden, Bond University  
Heather Honea, San Diego State University  
Jiewen Hong, Northwestern University  
David Houghton, Northwest Nazarene University  
Yanliu Huang, University of Pennsylvania  
Jesse Itzkowitz, University of Florida  
Shailendra Pratap Jain, Indiana University  
Narayan Janakiraman, University of Arizona  
Allison Johnson, Queen's University of Business  
Brian Jorgensen, Westminster College  
Susan Jung Grant, University of Colorado, Boulder  
Eric Karson, Villanova University  
Anat Keinana, Columbia University  
Tina Kiesler, California State University, Northridge  
Hakkyun Kim, University of Minnesota  
Hyeong Min Kim, Baruch College  
Lisa Klein Pearo, Cornell University  
Rob Kleine, Ohio Northern University  
Stephen Koernig, Depaul University  
Antonia Kronlund, University of Chicago  
Anand Kumar, University of Southern Florida, Tampa  
Monica LaBarge, University of Oregon  
Vishal Lala, Pace University  
Stacy Landreth Grau, Texas Christian University  
Rita Langteau, University of Minnesota  
Michel Laroche, Concordia University  
Loraine Lau, University of California-Irvine  
Robyn LeBoeuf, University of Florida  
Leonard Lee, Columbia University  
James H. Leigh, Texas A&M University  
Robert Levine, California State University  
Elison Lim, University of Melbourne  
Wendy Liu, UCLA  
Peggy Sue Loroz, Gonzaga University  
Tina M. Lowrey, University of Texas at San Antonio  
Igor Makienko, Loyola University, New Orleans  
Prashant Malaviya, INSEAD  
Selin A. Malkoc, University of Minnesota  
Naomi Mandel, Arizona State University  
Carolyn A. Massiah, University of Central Florida
- Shashi Matta, The Ohio State University  
Heather Maxwell, University of Minnesota  
Michael S. McCarthy, Miami University  
A. Peter McGraw, University of Colorado  
Timothy P. Meyer, University of Wisconsin Green Bay  
Kyeong Sam Min, University of South Dakota  
Arul Mishra, University of Iowa  
Risto Moisio, University of Arizona  
Ashwani Monga, University of Texas at San Antonio  
Detra Montoya, University of Washington  
Jill Mosteller, Georgia State University  
John Mowen, Oklahoma State University  
Ashesh Mukherjee, McGill University  
Anirban Mukhopadhyay, Hong Kong University of Science and Technology  
Paulo Henrique Muller Prado, Federal University of Parana-Brazil  
Nabil Mzoughi, University of Sousse, Tunisia  
Kent Nakamoto, Virginia Tech  
Myungwoo Nam, INSEAD  
Nada I. Nasr, Bentley College  
Gillian Oakenfull, Miami University  
James L. Oakley, Purdue University  
Ulrich Orth, Oregon State University  
Cornelia Otnes, University of Illinois  
Karen Page, University of Pittsburgh  
Yue Pan, University of Dayton  
John Peloza, Simon Fraser University  
Laura Peracchio, University of Wisconsin-Milwaukee  
Rajani Ganesh Pillai, University of Central Florida  
Steven S. Posavac, University of Rochester  
Joe Priester, USC  
Bas van den Putte, University of Amsterdam  
Rajagopal Raghunathan, University of Texas at Austin  
S. (Ratti) Ratneshwar, University of Missouri-Columbia  
Marsha Richins, University of Missouri  
Dan Riner, University of Arkansas  
Christopher Rogdakis, Baruch College, CUNY  
Catherine Roster, University of New Mexico  
Salvador Ruiz, University of Murcia  
Dale W. Russell, INSEAD  
Alan Sawyer, University of Florida  
David W. Schumann, University of Tennessee  
Narendra K. Sharma, IIT Kanpur, India

David Silvera, University of Texas at San Antonio  
Joe Simmons, Yale University  
Itmar Simonson, Stanford University  
David W. Stewart, University of Southern California  
Scott D. Swain, Boston University  
David Ching-I Teng, Chang Gung University  
Manoj Thomas, NYU  
Carlos Torelli, University of Illinois  
Remi Trudel, University of Western Ontario  
Linda Tuncay, Loyola University Chicago  
Ana Valenzuela, Baruch College  
Patrick Vargas, University of Illinois  
Madhu Viswanathan, University of Illinois  
Rebecca Walker Naylor, University of Southern California  
Echo Wen Wan, Northwestern University  
Fang Wan, University of Manitoba  
Kai-Yu Wang, University of Wisconsin-Milwaukee

Tony Ward, Central Queensland University  
Lisa Watson, University of Regina  
Kimberlee Weaver, Virginia Tech  
Mei-Ling Wei, York University  
Patti Williams, University of Pennsylvania  
Sooyeon Nikki-Lee Wingate, Rutgers University  
Jorge A. Wise, Campus Monterrey  
Arch Woodside, Boston College  
Chunyan Xie, Norwegian School of Economics and Business Administration  
Terry Yan, Colorado State University  
Sunghwan Yi, University of Guelph  
Song-Oh Yoon, Singapore Management University  
Gergana Yordanova, University of Pittsburgh  
Meng Zhang, Chinese University of Hong Kong  
Yinlong (Allen) Zhang, University of Texas at San Antonio  
Jing Zhang, University of Wisconsin-Milwaukee  
Senghui (Jerry) Zhao, University of Miami

## Table of Contents

|  |
|--|
| <p><b>Thursday, February 22</b></p> <p>5:00 pm – 8:00 pm Registration</p> <p>6:30 pm – 8:00 pm Opening Reception</p> |
|--|

|  |
|--|
| <p><b>Friday, February 23</b></p> <p>7:00 am – 8:15 am Continental Breakfast</p> <p>8:00 am – 5:00 pm Registration</p> |
|--|

|                                    |
|------------------------------------|
| <p>8:15 am – 9:30 am Session 1</p> |
|------------------------------------|

**1.1 Competitive Session: Self-Awareness, Self-Control and Ego**

Session Chair: Aronte Bennett, New York University

*The Influence of Self-Referencing and Change-Focused Advertising Appeals*.....2  
 Julie A. Ruth, Rutgers University-Camden  
 Cele C. Otnes, University of Illinois  
 Linda Tuncay, Loyola University Chicago  
 Atul Kulkarni, University of Illinois

*Exerting Self-Control Leaves Consumers with a Concrete Mindset*.....3  
 Sabrina Bruyneel, Carnegie Mellon University and Katholieke Universiteit Leuven  
 Siegfried Dewitte, Katholieke Universiteit Leuven

*Egotism and Distancing: How Implicit Self-Judgments Influence Seller Choice*.....6  
 Luke Kachersky, Baruch, CUNY Graduate Center  
 Hyeong Min Kim, Baruch College, CUNY

**1.2 Special Session: An Appeal to the Senses: Consumer Perceptions and Evaluations in Multiple Sensory Modalities**.....8

Session Chairs: Gina Slejko, University of Colorado, Boulder  
 Joann Peck, University of Wisconsin, Madison

*The Cognitive Processing of Unfamiliar Odors: Cue Familiarity and Congruency Effects in Alternative Sensory Modalities*

Gina Slejko, University of Colorado, Boulder

*If Just Feels Good: Customers' Affective Responses to Touch and Its Influence on Persuasion*

Joann Peck, University of Wisconsin  
Jennifer Wiggins Johnson, Kent State University

*Oh! The Smell of Spring: Consumer Memory for Product-Intrinsic Scent Versus Color*

Aradhna Krishna, University of Michigan  
May Lwin, Nanyang Technological University, Singapore  
Jochen Wirtz, National University of Singapore  
Maureen Morrin, Rutgers University

**1.3 Competitive Session: Contradiction and Conflict**

Session Chair: Catherine Cole, University of Iowa

*Feeling about Thinking: The Resolution of Simultaneous Conflicting Preferences.....*12

Samuel Bond, Duke University  
James R. Bettman, Duke University  
Mary Frances Luce, Duke University

*Affect and Asymmetric Association of Positive and Negative Judgments.....*14

Christine Page, Skidmore College  
Bruce E. Pfeiffer, University of Cincinnati  
Paul M. Herr, University of Colorado

*Repetition Aversion.....*16

Mauricio Mittelman, INSEAD  
Amitava Chattopadhyay, INSEAD  
Miguel Brendl, INSEAD

**1.4 Special Session: Behavioral Consequences of Regulatory Fit in Consumer Behavior.....**17

Session Chairs: Cecile K. Cho, Columbia University  
Jonathan Levav, Columbia University  
Discussant: Angela Y. Lee, Northwestern University

*Too Much Regulatory Fit? A Case of "Buridan's Ass" in Consumer Choice*

Jonathan Levav, Columbia University  
Ran Kivetz, Columbia University  
Cecile K. Cho, Columbia University

*The Fit Effect between Regulatory Goals and Mode of Decision Strategies*

Wen Wan, Northwestern University  
Jiewen Hong, Northwestern University



Brian Sternthal, Northwestern University

*Search for Gains for Search for Non-losses? The Impact of Regulatory Fit on Consumer Research*

Michel Tuan Pham, Columbia University

Hannah Chang, Columbia University

**1.5 Special Session: Motives for Charitable Giving.....19**

Session Chair: Deborah A. Small, University of Pennsylvania

Discussant: Dipankar Chakravarti, University of Colorado, Boulder

*Friends of Victims: Personal Experience and Prosocial Behavior*

Deborah A. Small, University of Pennsylvania

Uri Simonsohn, University of Pennsylvania

*Why Would I Feel Guilty For Giving A Homeless Guy A Dollar? How Endowment, Peer Pressure, And Guilt Affect Charity Preferences*

Michal Strahilevitz, Golden Gate University

*Aiding Victims of Hurricane Katrina: Helping when it Hurts (Me) the Most*

Michael I. Norton, Harvard University

Amy J.C. Cuddy, Rutgers University

9:30 am – 9:45 am Break

9:45 am – 11:00 am Session 2

**2.1 Competitive Session: New Perspectives on Information Processing**

Session Chair: Sunghwan Yi, University of Guelph

*Influence of Accuracy Motivated Information Processing on the Evaluation of Multiple Gains and Losses.....23*

Dorothea Schaffner, New York University

Durairaj Maheswaran, New York University

Andreas Herrmann, University of St.Gallen, Switzerland

Pragya Mathur, New York University

*Circles, Squares and Choice: Graphical Priming Effects on Uniqueness and Variety-Seeking.....25*

Michal Maimaran, Stanford University

Christian Wheeler, Stanford University

*Not All Dimensions are Created Equal: Feature Distributions Affect Dimensional Accessibility.....27*

Jesse Itzkowitz, University of Florida  
 Chris Janiszewski, University of Florida

**2.2 Competitive Session: Unexamined Influences on Consumption**

Session Chair: Frederic Brunel, Boston University

*The Effect of Superstitious Beliefs on Consumer Behavior*.....29  
 Thomas Kramer, Baruch College, CUNY  
 Lauren Block, Baruch College, CUNY

*The Luxury Of Art: How Luxury Perceptions Of Art Spill Over Onto Consumer Products*.....31  
 Henrik Hagtvedt, University of Georgia  
 Vanessa Patrick, University of Georgia

*From Small Slice to Big Picture: The Relationship Between Within-Category Variety Perceptions, Local Display Breadth, and Store Variety Inferences*.....33  
 Joseph K. Goodman, The University of Texas at Austin  
 Cait Poynor, University of South Carolina

**2.3 Competitive Session: Identity and Self-Construal**

Session Chair: Neel Das, Indiana State University

*Process Derived Satisfaction and Outcome Derived Satisfaction: The Role of Self-Construal*.....34  
 Xiaojing Yang, University of Wisconsin-Milwaukee  
 Huifang Mao, University of Central Florida

*The Effects of Self-Construal Priming on Consumers' Self-Presentational Goals*.....35  
 Ashok K. Lalwani, University of Texas at San Antonio  
 Sharon Shavitt, University of Illinois, Urbana-Champaign

*When Shift Happens: Social Identity Threat and Consumer Preferences*.....37  
 Katherine White, University of Calgary  
 Jennifer J. Argo, University of Alberta, Edmonton

**2.4 Special Session: Understanding Product Life After Purchase: Consumer Decisions to Repair, Return, or Replace Durable Goods**.....39

Session Chair and Discussant: Susan Broniarczyk, University of Texas

*Are Old Appliances Worth Repairing? The Optimality of Consumer Intuitions on Repair and Replacement*  
 João Assunção, Catholic University, Lisbon  
 Robert J. Meyer, University of Pennsylvania

*Stricter Return Policies: The Effect of Time to Return an Item on Product Returns*  
 Narayan Janakiraman, University of Arizona  
 Lisa Ordóñez, University of Arizona

*Return Policy Leniency and Assortment Attractiveness: An Information Processing Perspective*

Marcus Cunha, University of Washington, Seattle

D. Eric Boyd, James Madison University

**2.5 Special Session: Affect and Gambling**.....43

Discussant: Baba Shiv, Stanford University

*Dynamic Inconsistencies in Gambling: The Role of Feelings*

Eduardo B. Andrade, University of California, Berkeley

Ganesh Iyer, University of California, Berkeley

*The Unexpected Enjoyment of Expected Events: The Ill-Fated Pursuit of Excitement in Watching Televised Sporting Events*

Leif D. Nelson, New York University

Jeff Galak, New York University

Joachim Vosgerau, Carnegie Mellon University

*Probabilistic Discounts: When Retailing and Las Vegas Meet*

Nina Mazar, Massachusetts Institute of Technology

Dan Ariely, Massachusetts Institute of Technology

11:00 am – 11:15 am Break

11:15 am – 12:15 pm Distinguished Speaker  
Anthony G. Greenwald, University of Washington:  
*Using the Implicit Association Test in Consumer Research*

12:30 pm – 2:00 pm Lunch  
Business Meeting  
Awards  
Let's Do Lunch... and Research!

2:15 pm – 3:30 pm Session 3

**3.1 Competitive Session: Consumer Ambivalence and Revenge**

Session Chair: Donna Hoffman, University of California-Riverside

|   |    |
|---|----|
| <i>Understanding the Role of Ambivalence in Consumption</i> ..... | 46 |
| Colleen C. Bee, University of San Diego                           |    |
| Robert Madrigal, University of Oregon                             |    |
| <i>Don't Get Mad, Get Even: On Consumers' Revenge</i> .....       | 48 |
| Ayelet Gneezy, University of Chicago                              |    |
| Dan Ariely, Massachusetts Institute of Technology                 |    |
| <i>Choosing Targets in Surrogate Boycotts</i> .....               | 50 |
| George Balabanis, City University of London                       |    |
| Violetta Winkworth, City University of London                     |    |
| Constantine Katsikeas, Leeds University                           |    |
| Vincent Wayne Mitchell, City University of London                 |    |

**3.2 Competitive Session: Money and Pricing**

Session Chair: Igor Makienko, Loyola University, New Orleans

|  |    |
|--|----|
| <i>Consumer Response to Spikes in Gasoline Prices: The Role of Mental Accounting</i> .....           | 52 |
| John Godek, University of Oregon   |    |
| Kyle Murray, University of Western Ontario   |    |
| <i>Symbolic Money Meanings: Conceptualization and Measurement</i> .....                              | 54 |
| Gregory Rose, University of Washington Tacoma  |    |
| Linda Foley, University of Akron   |    |
| <i>Trouble with the Gamble as Decision Metaphor (or How an Air Purifier is Not Like \$300)</i> ..... | 55 |
| A. Peter McGraw, University of Colorado, Boulder   |    |
| Eldar Shafir, Princeton University   |    |
| Alexander Todorov, Princeton University  |    |

**3.3 Special Session: SCP-Sheth Dissertation Award Winners**.....57

Session Chairs: Maria Cronley, Miami University  
Peggy Sue Loroz, Gonzaga University

**Winner:**

Anastasiya Pocheptsova, Yale University, with the proposal entitled “The Effect of Context and Real-time Evaluations on Retrospective Judgments of Hedonic Experiences.”  
Dissertation Chair: Nathan Novemsky.

**Runners-Up:**

Julia Belyavsky, University of Florida, with the proposal entitled “Letting Good Opportunities Pass By: Examining the Role of Mindset During Goal Pursuit.”  
Dissertation Chair: Joel B. Cohen.

Arul Mishra, University of Iowa, with the proposal entitled “The Role of Spatial Groupings on the Spread of Good and Bad Qualities.”  
 Dissertation Chair: Dhananjay Nayakankuppam.

**3.4 Special Session: Money Matters: Psychological Perspectives of Money and Product Valuation.....62**

Session Chairs: Marco Bertini, London Business School  
 Leonard Lee, Columbia Business School  
 Discussant: Dilip Soman, University of Toronto

*Money Muddles Thinking: The Effects of Price Considerations on Preference Consistency*  
 Leonard Lee, Columbia University  
 Marco Bertini, London School of Business  
 Dan Ariely, Massachusetts Institute of Technology

*Frugality in a World of Extravagance: Self/Other Discrepancies in Payment and Compensation Judgments*  
 Shane Frederick, Massachusetts Institute of Technology

*On the Perceived Value of Money: The reference Dependence of Currency Numerosity Effects*  
 Klaus Wertenbroch, INSEAD  
 Dilip Soman, University of Toronto  
 Amitava Chattopadhyay, INSEAD

**3.5 Special Session: When Consumers Judge a Book by Its Cover: Emergent Research in Packaging Design.....65**

Session Chairs: Barbara E. Kahn, University of Pennsylvania  
 Durairaj Maheswaran, New York University  
 Discussant: Peter Bloch, University of Missouri, Columbia

*The Perceptual Transfer of Product Package Haptic Cues*  
 Aradhna Krishna, University of Michigan  
 Maureen Morrin, Rutgers University

*Is Your Product on the “Right” Side? -- Measuring Package’s Visual Weight*  
 Xiaoyan Deng, University of Pennsylvania  
 Barbara E. Kahn, University of Pennsylvania

*Geometry in the Marketplace*  
 Eric Greenleaf, New York University  
 Priya Raghubir, University of California, Berkeley

3:30 pm – 3:45 pm Break

3:45 pm – 5:00 pm Session 4

**4.1 Competitive Session: New Topics in Brand Research**

Chair: Michael McCarthy, Miami University

*To be or not to be consistent: Should marketers always use the "Puma" approach to brand-logo consistency? .....*67  
 Sandor Czellar, HEC Paris  
 Bruno Kocher, University of Lausanne

*Brand Relationship Quality and Brand Extension Judgments: Importance of Consistency at Attribute Level.....*69  
 Kyeongheui Kim, University of Toronto  
 Jongwon Park, Korea University  
 JungKeun Kim, University of Minnesota

*How Do Brand Rumors Persuade? The Response is Automatic.....*71  
 Claudiu V. Dimofte, Georgetown University  
 Richard F. Yalch, University of Washington

**4.2 Competitive Session: Fun and Enjoyment**

Chair: Aimee Drolet, University of California, Los Angeles

*The "More Fun = Less Good" Intuition and Its Influence on Consumption Decisions.....*73  
 Rajagopal Raghunathan, The University of Texas at Austin  
 Rebecca Walker Naylor, University of South Carolina

*The Effect of Making a Prediction about the Outcome of a Consumption Experience on the Enjoyment of that Experience.....*75  
 Naomi Mandel, Arizona State University  
 Stephen M. Nowlis, Arizona State University

*Why Be Happy When You Can Stay Sad: Affect-Congruent Preference in Consumer Decision-Making.....*77  
 Nancy M. Puccinelli, Suffolk University

**4.3 Competitive Session: Navigating and Negotiating Relationships**

Chair: Lisa Klein Pearo, Cornell University

*I Have Enough Friends, I Just Want to Be a Customer: When Communal Company-Consumer Relationships Go Bad.....*79  
 Jennifer Wiggins Johnson, Kent State University  
 Joann Peck, University of Wisconsin-Madison

*The Benefit of the Doubt? The Role of Trustworthiness in Different Relationship Frames.....*81

Mirjam Tuk, RSM Erasmus University  
 Peeter Verlegh, RSM Erasmus University  
 Ale Smidts, RSM Erasmus University  
 Daniel Wigboldus, Radboud University Nijmegen

*The Influence of Facial Characteristics on the Interpretation of Concession Patterns in Marketing Negotiations*.....83  
 Rajesh Bagchi, University of Colorado, Boulder  
 Dipankar Chakravarti, University of Colorado, Boulder

**4.4 Special Session: Multiple-Stage Decision Processes: Cognitive and Motivational Effects on Consumer Choice**.....85

Session Chair: Michal Maimaran, Stanford University  
 Discussant: Alexander Chernev, Northwestern University

*The Effect of Choosing to Make a Choice on Consumers' Choices: The Making of Bold Decisions*  
 Michal Maimaran, Stanford University  
 Itamar Simonson, Stanford University

*The Licensing Effect of Two-Stage Decisions on Choices between Virtues and Vices*  
 Amitav Chakravarti, New York University  
 Ayelet Fishbach, University of Chicago  
 Chris Janiszewski, University of Florida  
 Gülden Ülkümen, New York University

*The Effect of Decision Interruption and Suspension on Preferences*  
 Wendy Liu, University of California, Los Angeles

**4.5 Competitive Session: Communications and Advertising Effects**

Session Chair: Carolyn Massiah, University of Central Florida

*Understanding the Contextual Effects of Advertising Values in Activating Self-Construals: Moderator and Underlying Processes*.....88  
 Jing Zhang, University of Wisconsin-Milwaukee

*The Effects of On-Pack Discount Information on Consumers' Price Perceptions*.....90  
 Devon DelVecchio, Miami University  
 H. Shanker Krishnan, Indiana University

*Behavioral Mimicry and Persuasion: Increased Attitude Change and Perceived Persuasiveness*.....92  
 Gunter Wessels, University of Arizona

5:00 pm – 6:00 pm JCP Editorial Board Meeting

6:00 – 7:00 Poster Session

P-1 *The Importance of Being Hedonistic: Consumer Responsiveness to Promotions for Hedonistic and Utilitarian Products*.....102  
 Keith Wilcox, Baruch, CUNY Graduate Center.  
 Kapil Bawa, Baruch College, CUNY

P-2 *How Human Values Influence Food and Beverage Choice Depends on Whether Consumers Examine the Front of the Package or the Back*.....104  
 Michael W. Allen, University of Sydney  
 Melanie Adam, National Engineer School for Food Industries & Management  
 Mathilde Lasnier National Engineer School for Food Industries & Management  
 Simon Le Deaut, National Engineer School for Food Industries & Management

P-3 *Cutting and Burning: On the Trait Predictors of Extreme Beauty-Enhancing Behaviors*.....107  
 Adelina Q. Longoria, Oklahoma State University  
 Amy Sallee, Oklahoma State University  
 John C. Mowen, Oklahoma State University

P-4 *Consumer Perceptions of Corporate Social Responsibility: The Case of Moderation Marketing*.....109  
 Chelsea Willness, University of Calgary  
 Katherine White, University of Calgary

P-5 *Regulatory Fit: Matching Regulatory Goals with Product Types*.....111  
 Camelia Micu, Fairfield University  
 Tilottama G. Chowdhury, Quinnipiac University

P-6 *What it Means to be an Adult: Points of Vulnerability for Youths in Transition*.....114  
 Natalie T. Wood, Saint Joseph's University  
 Helene Cherrier, University of Sidney  
 Caroline Munoz, Fairleigh Dickinson University

P-7 *The Impact of Interruption on the Consumer Decision Making Process*.....106  
 Rosellina Ferraro, University of Maryland  
 Olga Dorokhina, University of Maryland  
 Kurt Carlson, University of Duke

P-8 *How Does Persuasion Knowledge Influence Consumer Evaluation of Brands?* .....118  
 Mei-Ling Wei, York University  
 Eileen Fischer, York University  
 Kelley J. Main, York University

P-9 *Practice, Perceived Quality and Consumer Choice*.....119  
 Kyle B. Murray, University of Western Ontario  
 Kersi Antia, University of Wisconsin, Madison  
 Jianping Liang, University of Western Ontario



|      |   |     |
|------|---|-----|
| P-10 | <i>The Single Category Implicit Association Test (SC-IAT) as a Measure of Implicit Consumer Attitudes.....</i>  | 121 |
|      | Ross B. Steinman, Widener University<br>Andrew Karpinski, Temple University   |     |
| P-11 | <i>Category versus Branded: Examining the Effectiveness of the Direct-To-Consumer Advertising in the Pharmaceutical Industry.....</i>   | 123 |
|      | Sooyeon Nikki Lee-Wingate, Rutgers University<br>Ying Xie, Rutgers University   |     |
| P-12 | <i>Virtual Brand Development.....</i>   | 125 |
|      | Kyle B. Murray, University of Western Ontario<br>Kashef Majid, University of Western Ontario<br>Robin Ritchie, University of Western Ontario  |     |
| P-13 | <i>Sex, Youth and Beauty: An Analysis of Advertising Appeals Targeting Women of Different Age Groups.....</i>   | 128 |
|      | Kimberly A. Taylor, Florida International University<br>Katherine M. Beale, Florida International University  |     |
| P-14 | <i>My Kind of Brand: Exploring Brand Personality Projection through Morphing.....</i>   | 130 |
|      | Ronald J. Faber, University of Minnesota<br>Brittany R.L. Duff, University of Minnesota<br>Yulia Lutchyn, University of Minnesota   |     |
| P-15 | <i>Incidental Mood and Consumer Evaluation of Price.....</i>  | 132 |
|      | Yuliya A. Komarova, University of South Carolina<br>Kelly Haws, University of South Carolina  |     |
| P-16 | <i>Left Behind: Left-Digit Effects and Consumers' Reference Price Ranges.....</i>   | 133 |
|      | James R. Carver, University of Arizona  |     |
| P-17 | <i>Identification with Brand Community and Brand Knowledge: Individual Determinants and Behavioural Consequences.....</i>   | 135 |
|      | Kurt Matzler, Johannes Kepler University Linz, Austria<br>Todd A. Mooradian, College of William and Mary<br>Johann Füller, University of Innsbruck, Austria<br>Andrea Hemetsberger, University of Innsbruck, Austria<br>Elisabeth Pichler, University of Innsbruck, Austria |     |
| P-18 | <i>Impact of Price Sequence on Fairness and Choice.....</i>   | 137 |
|      | Eric Dolansky, University of Western Ontario<br>Kyle B. Murray, University of Western Ontario<br>Mark Vandebosch, University of Western Ontario   |     |
| P-19 | <i>How to Retain Credibility in the Case of Product Recalls: The Role of Linguistic Abstractness in Press Releases .....</i>  | 139 |
|      | Arnd Florack, University of Basel, Switzerland  |     |

|      |  |     |
|------|--|-----|
|      | Eva Büchel, University of Basel, Switzerland   |     |
| P-20 | <i>The Artistic Organization: The Influence of Visual Art in Shaping Consumer Perceptions of Corporate Image</i> .....   | 141 |
|      | Henrik Hagtvedt, University of Georgia<br>Vanessa M. Patrick, University of Georgia  |     |
| P-21 | <i>Environmental Evaluations, Emotion Priming, and Pro-environmental Consumer Choices</i> .....  | 143 |
|      | Leila Scannell, University of Victoria, Canada<br>Robert Gifford, University of Victoria, Canada<br>Christine Kormos, University of Victoria, Canada   |     |
| P-22 | <i>Environment-related Knowledge and Perceptions of Current and Future Environmental Conditions: Influences on Consumer Behavior</i> .....   | 145 |
|      | Christine Kormos, University of Victoria, Canada<br>Robert Gifford, University of Victoria, Canada<br>Leila Scannell, University of Victoria, Canada   |     |
| P-23 | <i>How Consumers Evaluate Products: Information Acquisition Strategy By Brand Names Or Attributes</i> .....  | 147 |
|      | Mototaka Sakashita, Sophia University, Japan   |     |
| P-24 | <i>Recollections and Impressions: The Role of Forgetting in Judgments and Decision Making</i> .....  | 149 |
|      | Benjamin C. Storm, University of California, Los Angeles<br>Elizabeth Ligon Bjork, University of California, Los Angeles<br>Jeremy Owen, University of California, Los Angeles   |     |
| P-25 | <i>Seeing Sounds, Hearing Words: Structural Correspondences In Modality Cross-Overs</i> .....  | 151 |
|      | Anil Thozhur, Columbia University<br>Bernd Schmitt, Columbia University  |     |
| P-26 | <i>Which Message to Deliver: Vantage Claim vs. Qualifying Claim? The Interaction Effect between Product Claim Type and Brand Strength on Product Evaluations</i> .....   | 152 |
|      | Wenbo Wang, Peking University  |     |
| P-27 | <i>Advice Taken but not Followed: Vividness, Identifiability and Word-of-Mouth Behavior</i> .....  | 154 |
|      | Rajesh Bhargave, University of Pennsylvania<br>Deborah Small, University of Pennsylvania   |     |
| P-28 | <i>Neural Correlates of Ad Liking</i> .....  | 155 |
|      | Peter Kenning, University of Münster, Germany<br>Hilke Plassmann, California Institute of Technology<br>Anna Pieper, University of Münster, Germany<br>Wolfram Schwindt, University of Münster, Germany<br>Harald Kugel, University of Münster, Germany<br>Michael Deppe, University of Münster, Germany |     |
| P-29 | <i>Bilingual Advertising and Language Domains</i> .....  | 156 |
|      | Ryall Carroll, Baruch, CUNY Graduate Center  |     |

P-30 *Language Stereotypes and Spontaneous Social Comparison: Understanding How Accents Impact Self-Perception and Brand Evaluations*.....158  
 Christine Bennett, University of Minnesota  
 Barbara Loken, University of Minnesota

P-31 *Improving Health Programs with Emotional Intelligence*.....159  
 Paula C. Peter, Virginia Tech  
 David Brinberg, Virginia Tech

P-32 *Finding & Utilizing Opinion Leaders: Social Networks & The Power Of Relationships*.....161  
 Rian van der Merwe, eBay, Inc  
 Leyland F. Pitt, Simon Frazer University  
 Pierre Berthon , Bentley College  
 Costas Katsikias, Leeds University  
 George Balabanis, City University of London  
 Nic Terblanche, University of Stellenbosch

P-33 *When Comparison Becomes Contrast: Choice in an Oppositional Framework*.....162  
 Anjala S. Krishen, Virginia Tech  
 Kent Nakamoto, Virginia Tech

|                             |
|-----------------------------|
| 6:30 pm – 8:00 pm Reception |
|-----------------------------|

**Saturday, February 24**

7:00 am – 8:15 am Continental Breakfast

8:00 am – 5:00 pm Registration

8:15 am – 9:30 am Session 5

**5.1 Competitive Session: Category and Brand Labels**

Chair: H. Onur Bodur, Concordia University

*It's All in the Brand or is it? Brand Centricity and Its Role in Brand Extension Evaluations*.....164  
 Sanjay Puligadda, The Pennsylvania State University  
 William T. Ross Jr., The Pennsylvania State University  
 Rajdeep Grewal, The Pennsylvania State University

*Advergaming: The Impact of Brand Prominence and Repetition on Brand Responses*.....166  
 Verolien Cauberghe, University of Antwerp  
 Patrick De Pelsmacker, University of Antwerp  
 Ati Coffernlis, Free University of Brussels

*The Psychology Of Category Design: Implications For Consumer Information Processing And Choice*.....168  
 Cait Poynor, University of South Carolina  
 Kristin Diehl, University of Southern California

**5.2 Competitive Session: Regulatory Focus and Goals**

Chair: Catherine Roster, University of New Mexico

*The Effect of Regulatory Focus on Time Discounting*.....170  
 Rongrong Zhou, Hong Kong University of Science and Technology  
 Shenghui Zhao, University of Miami

*Chronic Goal Orientation: Extending Prior Consumer Research and Regulatory Focus Theory*.....172  
 William O. Bearden, University of South Carolina  
 Kelly L. Haws, University of South Carolina

|  |     |
|--|-----|
| <i>Effects of Prior Outcomes in Sequential Choice: Goal Target or Generalized Mental Accounting?</i> ..... | 173 |
| Mauricio M. Palmeira, Indiana University   |     |

### 5.3 Competitive Session: Making Consumption Decisions

Chair: Gergana Yordanova, Boston College

|   |     |
|---|-----|
| <i>Predecisional Bias Among Fluid Choice Sets</i> ..... | 175 |
| Noah J. Goldstein, Arizona State University             |     |
| Vladas Griskevicius, Arizona State University           |     |
| Robert B. Cialdini, Arizona State University            |     |

|  |     |
|--|-----|
| <i>The Impact of Counterfactual Thinking on Customer Purchase Response</i> ..... | 177 |
| Kai-Yu Wang, University of Wisconsin-Milwaukee                                   |     |
| Minli Liang, State University of New York-Brockport                              |     |
| Laura A. Peracchio, University of Wisconsin-Milwaukee                            |     |

|   |     |
|---|-----|
| <i>Motivated Taste Change for Diet Coke</i> ..... | 179 |
| Jason Riis, New York University                   |     |
| Samuel McClure, Princeton University              |     |

### 5.4 Special Session: Advertising and Narrative Transportation.....180

Discussant: Dawn Iacobucci, University of Pennsylvania

|   |
|---|
| <i>Process-Focused Mental Simulation and Narrative Transportation</i> |
| Jennifer Edson Escalas, Vanderbilt University                         |

|   |
|---|
| <i>Narrative Transportation and Advertising</i> |
| Jing Wang, University of Iowa                   |
| Bobby J. Calder, Northwestern University        |

|   |
|---|
| <i>Transportation and Extrinsic Involvement with Media as Predictors of Advertising Effectiveness</i> |
| Edward M. Malthouse, Northwestern University  |
| Bobby J. Calder, Northwestern University  |

### 5.5 Special Session: New Insights into Post-Experience Memory Distortion.....182

Session Chair: Kunter Gunasti, Pennsylvania State University

Discussant: Dipankar Chakravarti, University of Colorado, Boulder

|   |
|---|
| <i>A Reexamination of Post-Experience Advertising Effects: The Moderating Roles of Accuracy and Impression Motivation</i> |
| Kunter Gunasti, Pennsylvania State University   |
| Hans Baumgartner, Pennsylvania State University   |
| Min Ding, Pennsylvania State University   |

|  |
|--|
| <i>Fact or Fiction: Accuracy of Consumption Memory in an Interactive Context</i> |
| Arun Lakshmanan, Indiana University  |

Shanker Krishnan, Indiana University

*Consumers Generating Their Own Misinformation: How Passing on Work-of-Mouth Affects Autobiographical Memory*

Elizabeth Cowley, University of Sydney

9:30 am – 9:45 am Break

9:45 am – 11:00 am Session 6

**6.1 Competitive Session: Unexamined Influences in Consumption**

Chair: Eric Eisenstein, Cornell University

*The “Shaken Self:” Product Choices as a Means of Restoring Self-View Confidence.....*184  
 Leilei Gao, Stanford University  
 Christian Wheeler, Stanford University  
 Baba Shiv, Stanford University

*Conspicuous Consumption and Blatent Benevolence: When Romantic Motives Elicit Costly Displays.....*186  
 Vldas Griskevicius, Arizona State University  
 Joshua M. Tybur, University of New Mexico  
 Jill M. Sundie, University of Houston  
 Robert B. Cialdini, Arizona State University  
 Geoffrey F. Miller, University of New Mexico  
 Douglas T. Kenrick, Arizona State University

*The Effects of Category Labels and Overall Similarity on Consumer Preferences for New Products.....*193  
 Maria Saaksjarvi, Hanken School of Economics and Business Administration  
 Ewa Pulkinnen, Hanken School of Economics and Business Administration

**6.2 Special Session: Delineating the Influence of Metacognition in Judgments.....**195

Session Chair: Manoj Thomas, Cornell University  
 Discussant: Geeta Menon, New York University

*The Role of Ease in Consumers’ Emotional Judgments*  
 Derek D. Rucker, Northwestern University  
 Pablo Briñol, Universidad Autonoma de Madrid  
 Richard E. Petty, Ohio State University

*The Ease of Computation Effect*

Manoj Thomas, Cornell University  
Vicki Morwitz, New York University

*Perceptual Fluency, Attitudes and Choice*

She-Woong Chung, Singapore Management University  
Andy Mitchell, University of Toronto

**6.3 Competitive Session: Consumer Health**

Session Chair: Tina Kiesler, California State University-Northridge

*Eating with a Purpose: Consumer Responses to Functional Food Health Claims*.....199

Courtney M. Droms, University of South Carolina  
Rebecca Walker Naylor, University of South Carolina  
Kelly L. Haws, University of South Carolina

*Smoking Related Cognitions, Activist Inclinations, Motivations, and the Impact of Gender and Group-Membership on Anti-Smoking Beliefs and Activism*.....201

Namita Bhatnagar, University of Manitoba  
Sridhar Samu, Indian School of Business

*Factors Influencing Healthy Eating Habits among College Students: Application of Health Belief Model*.....203

Sameer Deshpande, University of Lethbridge, Canada  
Michael Basil, University of Lethbridge, Canada  
Debra Basil, University of Lethbridge, Canada

**6.4 Special Session: The Psychology of Bonding with Brands: Who, What, and Why**.....205

Session Chair: S. Ratti Ratneshwar, University of Missouri-Columbia

Discussant: Peter Dacin, Queens University

*The Safety of Objects: An Examination of Materialism and Brand Connections*

Aric Rindfleisch, University of Wisconsin-Madison  
James E. Burroughs, University of Virginia  
Nancy Wong, Georgia Institute of Technology

*Strengthening Consumer-Brand Relationships through Social Initiatives*

Shuili Du, Boston University  
C. B. Bhattacharya, Boston University  
Sankar Sen, City University of New York

*Exploring the Antecedents and Consequences of Consumer-Brand-Identification*

Nicola Stokburger-Sauer, University of Mannheim  
S. Ratneshwar, University of Missouri-Columbia  
Sankar Sen, City University of New York  
Hans H. Bauer, University of Mannheim

**6.5 Special Session: Emotion Regulation: Three Paths That Go Beyond Feeling Better.....210**

Session Chairs: Adam Duhachek, Indiana University  
Nidhi Agrawal, Northwestern University

*The Use of Self Control for the Regulation of Specific Emotions*  
Yael Zemack Rugar, Virginia Polytechnic Institute/State University

*Avoiding Threat or Seeking Nurturance? Goal-seeking Tendencies of Distinct Negative Moods and Preferred Positive Outcomes*  
Aparna Labroo, University of Chicago  
Derek Rucker, Northwestern University

*Emotions, (In)Compatible Frames, and Persuasion: The Case of Guilt, Shame, and Drinking*  
Adam Duhachek, Indiana University  
Nidhi Agrawal, Northwestern University

11:00 am – 11:15 am Break

11:15 am – 12:15 pm Distinguished Speaker  
Nalini Ambady, Tufts University:  
*Thin Slice Judgments: Accuracy and Boundaries*

12:30 pm – 2:00 pm Lunch  
Awards  
Presidential Address: Laura Peracchio, University of Wisconsin-Milwaukee

2:15 pm – 3:30 pm Session 7



**7.1 Competitive Session: Consumer Consensus and Word of Mouth**

Session Chair: David Stewart, University of Southern California

- Love and the World Loves with You? Asymmetry in the False Consensus Effect*.....216  
 Ashesh Mukherjee, McGill University  
 Andrew D. Gershoff, University of Michigan  
 Anirban Mukhopadhyay, Hong Kong University of Science/Technology
- The Effects of the Dual Roles of Online Consumer Reviews on Purchasing Intention Depending on the Level of Expertise*.....218  
 Do-Hyung Park, Korea Advanced Institute of Science and Technology  
 Sara Kim, Korea Advanced Institute of Science and Technology  
 Ingoo Han, Korea Advanced Institute of Science and Technology
- When the Marketer Decides What the Consumer Buys: The Moderating Influence of Relationship Norms on Satisfaction with Self-Versus Marketer-Selected Outcomes*.....220  
 Pankaj Aggarwal, University of Toronto  
 Simona Botti, Cornell University

**7.2 Competitive Session: New Research in Advertising**

Session Chair: Ana Valenzuela, Baruch College

- Consumer Marketplace Intelligence and Vulnerability: Advertising Deception, Deception Knowledge and Expectancies*.....222  
 Guang-Xin Xie, University of Oregon  
 David M. Boush, University of Oregon  
 Courtney N. Boerstler, University of Oregon
- The Differential Effects of Scarcely Dressed Male and Female Models in Advertising*.....223  
 Nathalie Dens, University of Antwerp  
 Patrick De Pelsmacker, University of Antwerp  
 Wim Janssens, University of Antwerp
- A Hierarchical Model of Consumers' Response to Advocacy Advertising: Consumers Skepticism, Empathetic Response, Empathetic Emotions, and Prosocial Behavior*.....225  
 Robert Madrigal, University of Oregon  
 Monica LaBarge, University of Oregon  
 Johnny Chen, University of Oregon

**7.3 Competitive Session: Exercising Self-Control and Controlling Risks**

Session Chair: Aysen Bakir, Illinois State University

- The Justification Heuristic: The Impact of Effort and Income Stinginess on the Decision to Indulge*.....227  
 Ran Kivetz, Columbia University  
 Yuhuang Zheng, Fordham University

|   |     |
|---|-----|
| <i>Tightwads and Spendthrifts</i> .....   | 229 |
| Scott Rick, Carnegie Mellon University  |     |
| Cynthia Cryder, Carnegie Mellon University  |     |
| George Loewenstein, Carnegie Mellon University  |     |
| <i>At Your Own Risk: The Influence Of Self-Identity On Perceived Vulnerability To Identity-Specific Risks</i> .....                                       | 230 |
| Steven Sweldens, RSM Erasmus University   |     |
| Stefano Puntoni, RSM Erasmus University   |     |
| Nader Tavassoli, London Business School   |     |
| <b>7.4 Special Session: The Nonconscious Nature of Everyday Consumer Behavior</b> .....   | 232 |
| Session Chair: Manoj Thomas, Cornell University   |     |
| Discussant: Baba Shiv, Stanford University  |     |
| <i>It's a Matter of Focus: Situational and Individual Difference Moderators of Prime-to-Behavior Mechanisms</i>   |     |
| Christian Wheeler, Stanford University  |     |
| Dirk Smeesters, Tilburg University  |     |
| Aaron C. Kay, University of Waterloo  |     |
| <i>Anchoring in Numerical Judgments: Is it Volitional or Unintended?</i>  |     |
| Manoj Thomas, Cornell University  |     |
| Vicki Morwitz, New York University  |     |
| <i>Who's the Boss? Evidence for Nonconscious Reactance</i>  |     |
| Amy Dalton, Duke University   |     |
| Tanya Chartrand, Duke University  |     |
| Gavan Fitzsimons, Duke University   |     |
| <b>7.5 Competitive Session: Cultural and Cross-Cultural Effects on Persuasion</b>   |     |
| Session Chair: Sergio Carvalho, University of Manitoba  |     |
| <i>Culture and Mental Representations of Power: Implications for Consumers' Information-Processing Strategies, Judgments and Influence Attempts</i> ..... |     |
|   | 235 |
| Carlos J. Torelli, University of Illinois at Urbana-Champaign   |     |
| <i>Cross-Cultural and Intergenerational Differences in the Brand Personality Construct</i> .....  | 237 |
| Lerzan Aksoy, Koç University  |     |
| Ayşegül Özsoy, Koç University   |     |
| <i>The Impact of Culture on Persuasiveness of Health Messages on Self and Others</i> .....  | 239 |
| Sukki Yoon, Cleveland State University  |     |
| Ashok K. Lalwani, University of Texas at San Antonio  |     |
| Patrick Vargas, University of Illinois at Urbana-Champaign  |     |
| Yung Kyun Choi, Dongguk University  |     |
| Hyun Soon Park, Sungkyunkwan University   |     |

3:30 pm – 3:45 pm Break

3:45 pm – 5:00 pm Session 8

**8.1 Competitive Session: Promotions: Perceptions and Responses**

Session Chair: Georgiana Craciun, Loyola College, Maryland

*A Little Something for Me and Maybe for You, Too: Promotions that Relieve Guilt*.....242  
 Sooyeon Nikki Lee-Wingate, Rutgers University  
 Kim P. Corfman, New York University

*The Impact Of Sales Promotions On Children’s Purchase Decisions*.....245  
 Wendy Attaya Boland, University of Arizona  
 Lance-Michael Erickson, University of Arizona

*The Role of Narrative Immersion and Perceived Self-Protagonist Similarity in Cognitive and Affective Responses to Product Placements* .....247  
 Namita Bhatnagar, University of Manitoba  
 Fang Wan, University of Manitoba

**8.2 Competitive Session: Learning and Involvement**

Session Chair: Prashant Malaviya, INSEAD

*When Feasibility Elevates Involvement and Intention*.....249  
 Yael Steinhart , University of Haifa  
 David Mazursky, The Hebrew University of Jerusalem

*Prior Relevance and Prior Irrelevance in Multiple Outcome Learning*.....250  
 Marcus Cunha, Jr., University of Washington  
 Chris Janiszewski, University of Florida  
 Juliano Laran, University of Florida

*Temporal Response to Opportunities: A Look at the Last Name Effect*.....252  
 Kurt A. Carlson, Duke University  
 Jacqueline Conard, Vanderbilt University

**8.3 Special Session: A Behavioral Perspective on Differential Effectiveness of Promotions**.....254

Session Chairs: Uzma Khan, Carnegie Mellon University

Discussant: Yuhuang Zheng, Fordham University  
 Baba Shiv, Stanford University

*Justification and Promotion Effectiveness*

Yuhuang Zheng, Fordham University  
 Ran Kivetz, Columbia University

*Product Bundles and Differential Effectiveness of Price Discounts*

Uzma Khan, Carnegie Mellon University  
 Ravi Dhar, Yale University

*Preference For Receiving An Immediate Reward When Buying Hedonic Products*

Jiao Zhang, University of Miami  
 Dilip Soman, University of Toronto

**8.4 Special Session: Restricted Exposure to Diversity.....259**

Session Chair: Anne Brumbaugh, Wake Forest University  
 Discussant: David W. Schumann, University of Tennessee

*The Future of Race In America: Racism vs. Ignoracism*

Nat Irvin, Wake Forest University

*Restricting Exposure and Attention within Internet Searches: What Determines Where One Doesn't Go on the Web?*

David W. Schumann, University of Tennessee  
 Karen Hood, University of Tennessee

*Diversity Seeking in a Diversity Avoiding Society*

Anne M. Brumbaugh, Wake Forest University  
 Sonya A. Grier, University of Pennsylvania

**8.5 Competitive Session: Experiences with Channels and at Point-of-Purchase**

Session Chairs: Carolyn Bonifield, University of Vermont

*Understanding Consumer Experiences in Different Channels: The Critical Factors.....264*

Moutusi Maity, University of Wisconsin, Whitewater  
 George M. Zinkhan, University of Georgia

*Social Norms and Shelf Space Strategies: Influencing Consumer Preferences for High and Low Tier Brands at the Retail Shelf.....266*

Detra Y. Montoya, University of Washington  
 Naomi Mandel, Arizona State University  
 Stephen M. Nowlis, Arizona State University

*Bayesian Belief Updating: The Role of Frequency versus Percentage Formats.....267*

Dipayan Biswas, Bentley College  
 Terry Zhao, University of Kansas

## **Papers Presented at the 2007 Winter SCP Conference**

## The Influence Of Self-Referencing And Change-Focused Advertising Appeals

Julie A. Ruth, Rutgers University – Camden

Cele C. Otnes, University of Illinois

Linda Tuncay, Loyola University Chicago

Atul Kulkarni, University of Illinois

### ABSTRACT

Advertisers often argue that incorporating self-referencing linguistic elements in ads should produce more persuasive messages. Increasingly, ads incorporate second-person references such as “you” or “your” (e.g., “Your choice. Your Chase”). Self-referencing, or processing information in light of the self and one’s past experiences, has been studied due to its impact on persuasion. Self-referencing can occur spontaneously in individuals exposed to advertising messages. Activation of the self when processing a message provides more linkages in memory between the message and the self. These increased linkages in turn facilitate elaboration and ultimately affect persuasion.

Our understanding of the effectiveness of self-referencing, however, would be enhanced by acknowledging that this ad element is typically accompanied by, or embedded within, a broader semantic category known as the advertising appeal. One prevalent appeal whose effects are underexplored is one we term the “change-focused appeal” that promises a temporary or permanent

change if consumers use the good or service being advertised. Such appeals can use second-person voice (e.g., your life will be changed if you use this product or service) or third-person voice (e.g., their lives will be changed if they use this product or service).

We explore the combined impact of self-referencing ad copy and change-focused appeals. We review the literature in order to propose that second-person ad copy taps into an individual’s propensity to self-reference and, in turn, affects acceptance of change-focused appeals compared to product-focused superiority appeals (e.g., “Brand A is best”). An experiment was developed to test several hypotheses centered on the interaction effects of self-referencing ad elements, change-focused appeals, and an individual’s propensity to self-reference. The findings of our research have implications for self-referencing, change-focused appeals, and advertising theory and practice.

For further information contact: Julie A. Ruth; 227 Penn Street; School of Business; Rutgers University; Camden, NJ 08102; jaruth@camden.rutgers.edu

## Exerting Self-Control Leaves Consumers With A Concrete Mindset

Sabrina Bruyneel, Carnegie Mellon University and Katholieke Universiteit Leuven  
Siegfried Dewitte, Katholieke Universiteit Leuven

### ABSTRACT

Although the capacity to exert self-control is a prominent feature of human nature and consumers are thus often able to override their natural responses to instigating cues, they also lose control sometimes (e.g., Baumeister, 2002; Baumeister, Bratslavsky, Muraven, & Tice, 1998). Loss of self-control has been found to lead to poor consumer decision-making (e.g., Bruyneel, Dewitte, Vohs, & Warlop, 2006; Vohs & Faber, in press; Vohs & Heatherton, 2000). In this paper, we focus on the cognitive mechanism that underlies this distortion. Besides other aspects of the processes involved in self-control (e.g., Bandura, 1991; Bargh & Chartrand, 1999; Baumeister et al., 1998; Fujita, Trope, Liberman, & Levin-Sagi, 2006; Loewenstein, 1996; Metcalfe & Mischel, 1999; Wertebroch, 1998), we propose that exerting self-control evokes concrete processing, inducing a concrete mindset.

Previously, *mindsets* have been defined as a heightened accessibility of cognitive operations (Gollwitzer, 1990), whereby recently used cognitive operations are assumed to have temporarily higher activation levels, thus increasing their likelihood of being used to interpret new information (cf. Higgins, 1996) or steering behavior (Gollwitzer & Bayer, 1999). We propose that, much in the same way as how challenging situations in general benefit from concrete processing (e.g., Mischel, Cantor, & Feldman, 1996; Norman & Shallice, 1986; Scheier & Carver, 1988; Vallacher & Wegner, 1987; Vallacher, Wegner, & Somoza, 1989), situations requiring self-control will also lead to concrete processing, and will even induce a concrete *mindset*, in that the state of concrete processing lingers and influences how people deal with subsequent situations. We tested our hypothesis in four experiments in which we manipulated self-control and subsequently assessed the concreteness of participants' mindsets.

In Study 1, participants engaged in a task that either required self-control or not. They were asked to list their thoughts and to avoid thinking about a white bear or to think about anything they wanted, including a white bear, respectively (cf. Muraven & Slessareva, 2003). Subsequently, participants watched a series of slides that displayed centrally and peripherally presented information, and performed an unexpected recognition test containing the

information presented (cf. Gollwitzer & Bayer, 1999). As predicted, we found that participants who had exerted self-control recognized fewer peripherally, but more centrally presented words correctly than participants who had not exerted self-control. This suggests that exerting self-control induces a concrete mindset.

In Study 2, participants engaged in the same thought-listing task that either required self-control or not as in Study 1. Subsequently, they imagined themselves in one of three situations (i.e., going on a camping trip, moving into a new apartment, and having a yard sale) and classified 38 products related to each situation (e.g., tent and matches in the camping scenario, VCR and computer in the moving out scenario, and roller blades and board games in the yard sale scenario) in as many categories as they deemed suitable (cf. Liberman, Sagristano, & Trope, 2002). Forming fewer product categories means applying more abstract categorization, whereas forming more product categories means applying more concrete categorization. As predicted, participants who had exerted self-control formed more product categories than participants who had not exerted self-control. This suggests that exerting self-control induces a concrete mindset.

In Study 3, participants engaged in a task that either required self-control or not. They engaged in a Stroop color-naming task in which colors and color names were mismatched or matched, respectively (cf. Wallace & Baumeister, 2002). Subsequently, participants watched a series of five cartoons and described what they saw in writing, using one single word for each cartoon (cf. Semin, Higgins, Gil de Montes, Estourget, & Valencia, 2005). Words were analyzed for abstractness of language, using coding schemes developed for the Linguistic Categorization Model (Semin & Fiedler, 1988). More abstract ways of thinking should be revealed through the use of more abstract language, whereas more concrete ways of thinking should be revealed through the use of more concrete language. As predicted, participants who had exerted self-control used more concrete language than participants who had not exerted self-control. This suggests that exerting self-control induces a concrete mindset.

In Study 4, participants engaged in a task that either required self-control or not. They engaged in a difficult or an easy anagram task, respectively, in which they were asked to construct as many existing five-letter words as they could with eight characters. Subsequently, they had to rate the appropriateness of two action identifications describing their activity during the previous task. The action identification was either low or high (Vallacher & Wegner, 1987). If exerting self-control induces a concrete mindset, those who have exerted self-control should rate low action identifications as more appropriate than those who have not exerted self-control. Our findings supported this prediction.

Overall, our studies showed that exerting self-control induces a concrete mindset. Based on the current results, we can draw the general prediction that consumers in a concrete mindset might make decisions that differ from the ones made by consumers in an abstract mindset. Consumers in a concrete mindset might make myopic choices because they fail to see how repeated shortsighted decisions might have detrimental long-term consequences (cf. Read, Loewenstein, & Rabin, 1999). Compared to consumers in an abstract mindset, they might also more rigidly classify expenses into mental accounts because they fail to make broad classifications (cf. Cheema & Soman, 2006).

We found that a concrete mindset consistently occurs after various instances of self-control. These results might have implications for research about another consequence of exerting self-control, namely, self-control depletion (i.e., a reduction in self-control capacity after previous exertion of self-control, Baumeister et al., 1998; Muraven, Tice, & Baumeister, 1998). Self-control depletion might result from carry-over effects of the concrete mindset that is induced during the first self-control situation on the second self-control situation.

For further information contact Sabrina Bruyneel, Tepper School of Business, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213-3890, Tel.: +1-412-268-9619, Fax: +1-412-268-7357, E-mail: bruyneel@andrew.cmu.edu

#### REFERENCES

- Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes*, 50, 248-287.
- Bargh, J. A., & Chartrand, T. L. (1999). The unbearable automaticity of being. *American Psychologist*, 54, 462-479.
- Baumeister, R. F. (2002). Yielding to temptation: Self-control failure, impulsive purchasing and consumer behavior. *Journal of Consumer Research*, 28, 670-676.
- Baumeister, R. F., Bratslavsky, E., Muraven, M., & Tice, D. M. (1998). Ego depletion: Is the active self a limited resource? *Journal of Personality and Social Psychology*, 74, 1252-1265.
- Bruyneel, S., Dewitte, S., Vohs, K.D., & Warlop, L. (2006). Repeated choosing increases susceptibility to affective product features. *International Journal of Research in Marketing*, 23, 215-225.
- Cheema, A., & Soman, D. (2006). Malleable mental accounting: The effect of flexibility on the justification of attractive spending and consumption decisions. *Journal of Consumer Psychology*, 16, 33-44.
- Fujita, K., Trope, Y., Liberman, N., & Levin-Sagi, M. (2006). Construal levels and self-control. *Journal of Personality and Social Psychology*, 90, 351-367.
- Gollwitzer, P. M. (1990). Action phases and mindsets. In E. T. Higgins & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition: Foundations of social behavior, volume 2* (pp. 53-92). New York: The Guilford Press.
- Gollwitzer, P. M., & Bayer, U. (1999). Deliberative versus implemental mindsets in the control of action. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 403-422). New York: The Guilford Press.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and Salience. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133-168). New York: The Guilford Press.
- Liberman, N., Sagristano, M. D., & Trope, Y. (2002). The effect of temporal distance on level of mental construal. *Journal of Experimental Social Psychology*, 38, 523-534.
- Loewenstein, G. F. (1996). Out of control: Visceral influences on behavior. *Organizational Behavior and Human Decision Processes*, 65, 272-292.
- Metcalf, J., & Mischel, W. (1999). A hot/cold-system analysis of delay of gratification: Dynamics of will power. *Psychological Review*, 106, 3-19.
- Mischel, W., Cantor, N., & Feldman, S. (1996). Principles of self-regulation: The nature of willpower and self-control. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social Psychology. Handbook of basic principles* (pp. 329-360). New York: The Guilford Press.
- Muraven, M., & Slessareva, E. (2003). Mechanisms of self-control failure: Motivation and limited



- resources. *Personality and Social Psychology Bulletin*, 29, 894-906.
- Muraven, M., Tice, D. M., & Baumeister, R. F. (1998). Self-control as limited resource: Regulatory depletion patterns. *Journal of Personality and Social Psychology*, 74, 774-789.
- Norman, D. A., & Shallice, T. (1986). Attention to action. Willed and automatic control of behavior. In R. J. Davidson, G. E. Schwartz, & D. Shapiro (Eds.), *Consciousness and self-regulation, Volume 4* (pp. 1-18). New York: Plenum Press.
- Read, D., Loewenstein, G., & Rabin, M. (1999). Choice bracketing. *Journal of Risk and Uncertainty*, 19, 171-197.
- Scheier, M. F. & Carver, C. S. (1988). A model of behavioral self-regulation: Translating intention into action. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology*, 21 (pp. 303-346). New York: Academic Press.
- Semin, G. R., & Fiedler, K. (1998). The cognitive functions of linguistic categories in describing persons: Social cognition and language. *Journal of Personality and Social Psychology*, 54, 558-568.
- Semin, G. R., Higgins, E. T., Gil de Montes, L., Estourget, Y., & Valencia, J. (2005). Linguistic signatures of regulatory focus: How abstraction fits promotion more than prevention. *Journal of Personality and Social Psychology*, 89, 36-45.
- Vallacher, R. R., & Wegner, D. M. (1987). What do people think they're doing? Action identification and human behavior. *Psychological Review*, 94, 3-15.
- Vallacher, R. R., Wegner, D. M., & Somoza, M. P. (1989). That's easy for you to say: Action identification and speech fluency. *Journal of Personality and Social Psychology*, 56, 199-208.
- Vohs, K. D., & Faber, R. J. (in press). Spent resources: Self-regulatory resource availability affects impulse buying. *Journal of Consumer Research*.
- Vohs, K. D., & Heatherton, T. F. (2000). Self-regulatory failure: A resource depletion approach. *Psychological Science*, 11(3), 249-254.
- Wallace, H. M., & Baumeister, R. F. (2002). The effects of success versus failure feedback on further self-control. *Self and Identity*, 1, 35-41.
- Wertenbroch, K. (1998). Consumption self-control by rationing purchase quantities of virtue and vice. *Marketing Science*, 17, 317-337.

## Egotism And Distancing: How Implicit Self-Judgments Influence Seller Choice

Luke Kachersky, Baruch College, Cuny Graduate Center  
Hyeong Min Kim, Baruch College, Cuny

### ABSTRACT

Hardware stores owners are more likely to have names beginning with the letter H, compared with R, whereas the reverse is true for roofing company owners (Pelham, Mirenberg, and Jones 2002). People are disproportionately likely to marry others whose first names are similar to their own (Jones et al. 2004). People have a tendency to choose fictitious products with brand names that resembled their own names (Brendl et al. 2005). These findings show that people's decisions, both major and mundane, are influenced by subtle self-resemblance to stimuli – an effect called *implicit egotism*. In this paper, we provide a first demonstration of a reversal of implicit egotism due to anticipation of a self-threat, an effect that we call *implicit distancing*.

People actively try to maintain positive feelings about themselves. This activity comes in two forms – enhancement and protection. First, people actively try to enhance their positive self-evaluations by attaching themselves to other positive things (Cialdini et al. 1976). Second, people protect their current state of positive self-evaluations by distancing themselves from things that reflect poorly on them (Schimmel et al. 2000; Snyder, Lassegard, and Ford 1986). It has been noted that there is a temporal difference between these two forms of self-concept maintenance (Blaine and Crocker 1993; Sommer 2001). Specifically, it appears that self-enhancement is a *reaction* to immediately self-threatening stimuli. Self-protection, however, is *anticipatory* in nature and is employed to prevent future loss of self-esteem.

These temporal notions are in harmony with previous research on implicit egotism where an enhancement strategy, seeking out self-resembling stimuli, was employed in response to self-concept threats (Jones et al. 2004; Brendl et al. 2005). In contrast, we propose that if people anticipate a self-concept threat from a self-resembling stimulus, then they will employ a self-protection strategy by distancing themselves from the stimulus. Josephs et al. (1992) demonstrated that risky decisions are potentially, but not immediately, threatening to self-esteem. Thus, we expect that when choosing among risky sellers, consumers will implicitly avoid those sellers that bear resemblance to themselves. We call this effect *implicit distancing*.

A field study demonstrated the influence of implicit egotism and implicit distancing in Internet auction participant behavior. We examined the likelihood of bidding in an auction when only the first character of the seller's screen name matched the first character of the bidder's screen name. Indeed, in such cases bidders had a greater than chance likelihood of participating in the auction. To examine whether implicit distancing occurred, we looked at the likelihood of bidders winning high-priced auctions in which the seller's screen name had the same first character as the winner's. We expected implicit distancing because negative seller characteristics should be more salient in high-priced auctions. Consistent with our theorizing, for auctions with high bids over \$50, bidders had a less than chance likelihood of winning an auction when the first character of the seller's screen name matched their own.

In an experimental study, we replicated the findings in our field data. In fictional auctions with a buy-it-now option, participants rated their intention purchase a handbag. Using price as a manipulation of risk, the experiment used a 2 (name letter seller vs. non-name letter seller) x 2 (low risk vs. high risk) design. As expected, in the low risk condition participants had greater purchase intentions for name letter sellers, while in the high risk condition participants had lower purchase intentions for name letter sellers.

Another experiment demonstrated that the risk that induces implicit distancing extends beyond financial risk. Participants were asked to choose between a name letter and a non-name letter seller for either vitamins (low risk) or cigarettes (high risk). In the vitamin condition, participants chose the name letter seller at a rate greater than chance. In the cigarette condition, participants chose the name letter seller at a rate less than chance. Thus, it appears that multiple forms of risk can induce implicit distancing.

This research extends the literature on implicit egotism and self-concept by adding the concept of implicit distancing. It is also the first to demonstrate implicit egotism and implicit distancing in real transactions. Last, we show that implicit egotism and distancing can occur via non-birth given characteristics (i.e., screen names). In sum, this paper

provides new insights into how the self implicitly influences people's decision making.

For further information contact Luke Kachersky, Baruch College - CUNY, One Bernard Baruch Way, B12-240, New York, NY 10010-5585. E-mail: [luke\\_kachersky@baruch.cuny.edu](mailto:luke_kachersky@baruch.cuny.edu)

## An Appeal to the Senses: Consumer Perceptions and Evaluations in Multiple Sensory Modalities

Special Session Chairs: Gina Slejko, University of Colorado, Boulder  
Joann Peck, University of Wisconsin, Madison

### The Cognitive Processing Of Unfamiliar Odors: Cue Familiarity And Congruency Effects In Alternate Sensory Modalities

Gina Slejko, University of Colorado, Boulder  
Dipankar Chakravarti, University of Colorado,  
Boulder

Although scents and smells pervade the consumption environment, relatively little consumer research addresses how olfactory stimuli are processed during consumption. The memory and information processing literatures in psychology (e.g., Tulving and Craik 2000; Schooler, Fiore, and Brandimonte 1997) and consumer behavior (e.g., Bettman, Luce and Payne 2002; McQuarrie and Mick 1999) focus mainly on information in the visual, semantic and auditory modalities. The perception, encoding, storage and retrieval of olfactory experiences are less well understood.

Recent research on the cognitive and neurological processes involved in odor perception and identification (e.g., Doty 2001) shows that although previously encountered odors are accurately recognized, odor *identification* and *labeling* are often impeded by an inability to retrieve a mental image of odors (e.g., as for a visual stimulus). A familiar odor that fits a rich associative network of contextual, episodic and cultural information produces a memory match and hence is identified relatively easily and accurately. An unfamiliar odor provides no such memory match and external cues may be needed for identification. While some external cues may facilitate identification, others (e.g., related objects from the same category) may interfere with identification processes and cause source misattributions. The associated cognitive effort may be measured using a simultaneous secondary task.

We report three studies that examine the processing associated with odor identification. The first study motivates the primary hypotheses presented in studies 2 and 3 by investigating individuals' ability to identify odors that are paired with cues in varying sensory modalities. Study 1 first measures attitudes toward and identification accuracy of fragrances that vary in familiarity and presentation modality. Specifically, subjects are asked to identify and evaluate a set of target odors that are paired with either a visual cue (a picture of the object) or not. In

addition the identification task varied in type of recall (cued or uncued).

The results reveal that the modality in which an item is presented influences how the item is evaluated. Specifically, when an unfamiliar fragrance is paired with a visual cue subjects, on average, provide higher evaluations toward the item than those who are not presented with a visual cue. We find that this effect is mediated by subjects' subjective evaluations of their own accuracy in identifying the item. In other words, when individuals are able to use additional cues to assist in identifying an items' fragrance, regardless of their objective accuracy, merely believing that they have labeled the fragrance correctly leads to greater liking for the item.

In Study 1 we also find interactive effects of multisensory processing. In particular, the above mediation was moderated by the presence of a verbal cue in the recall task among those subjects who were provided with an odor and no visual cue. Specifically, the presence of a verbal cue in the identification task (cued) resulted in higher evaluations than those asked to complete an uncued identification task. These findings suggest that verbal cues invoke subjective certainty which in turn enhances evaluations toward an unfamiliar object. We discuss the implications of these findings for the presentation of fragrances in the consumer environment. Specifically, a familiar and identifiable product fragrance may play a role in enhancing product choice and evaluation.

Based on the above findings, in studies 2 and 3, we explore whether individuals spontaneously draw upon cues in their environment to facilitate with identification. In Studies 2 and 3 we explore multisensory processing that occurs upon perceiving an unfamiliar fragrance. We examine the interactive effects of cue familiarity and congruity on correct identification of a target odor when the external cue is presented in the visual and olfactory modalities, respectively. More specifically, we manipulate the external cues to vary on familiarity and category congruency relative to the target odor, creating four study conditions (1) familiar/congruent; (2) unfamiliar/congruent; (3) familiar/incongruent; and (4) unfamiliar/incongruent.

We hypothesize that external cues will be used to aid in odor identification when they are familiar and category congruent. The findings show direct and interactive effects of external cue familiarity, category congruency and cue modality on evaluations of the item, identification accuracy and the nature of misattributions of the target odor. We draw the implications for how such phenomena may alter anticipated and actual consumption experiences.

### **It Just Feels Good: Customers' Affective Response to Touch and Its Influence on Persuasion**

Joann Peck, University of Wisconsin-Madison  
Jennifer Wiggins, Kent State University

In prior research, the opportunity to touch has been found to have a persuasive effect only if it provides attribute or structural information about a product. Under this view, the role of touch as a persuasive tool is quite limited. The main purpose of this research was to investigate the persuasive influence of touch as an affective tool in the absence of useful product-related information.

In three studies, we found that the incorporation of touch into marketing messages can have a positive effect on persuasion for individuals who enjoy touching for fun (those that are high in Autotelic NFT). The first study was a 2 (Autotelic NFT: high versus low) x 2 (touch element: present versus absent) experiment. Nested within the touch element condition were two levels of congruence between the touch element and message (congruent and incongruent) and three levels of sensory feedback (positive, neutral and negative). When using a touch element, a positively valenced or neutral valenced element was more persuasive than using a touch element that provided negative sensory feedback. For high Autotelic NFT, compared to a no-touch element control condition, a positive or neutral valenced touch element increased persuasion while a negatively valenced touch element did not influence persuasion. However, for those individuals low in Autotelic NFT, a touch element providing negative feedback decreased persuasion while touch elements providing positive or neutral feedback did not influence persuasion compared to the no touch element condition.

Besides the types of sensory feedback provided by the touch element, we also examined the influence of the congruency of the touch element with the overall message. For high Autotelic NFT individuals, a touch element increased persuasion regardless of

whether the touch element was congruent with the overall marketing message. However, for low Autotelic NFT individuals, incorporation of a touch element that was not congruent with the message actually decreased the persuasiveness of the message.

In Study 2, we examined the *process* by which a touch element that provided positive sensory feedback influenced persuasion. We found that the persuasive effect occurred due to an affective or emotional response to the experience of touch. High Autotelic NFT individuals experienced an emotional response due to the touch element while individuals low in Autotelic NFT did not exhibit this same response. This emotional response to the touch element mediated the relationship between the presence of the touch element and persuasion.

In Study 3, we tested whether the findings could be replicated in a real-world situation and investigated the generalizability of our experimental findings. The design was a 2 (Autotelic NFT: high, low) x 2 (touch element: present, absent). We chose to partner with a Midwestern Children's Museum, a "hands-on" museum targeted to children aged 8 and under. Working with the fundraising staff at the museum, a brochure was designed to solicit new memberships. The cover of the brochure featured a picture of a cuddly-looking, spotted cartoon dinosaur with a child reaching to touch it. We then incorporated a touch element into half of the brochures. Since Studies 1 and 2 suggested that touch elements that provide positive sensory feedback are more persuasive, we used a touch element that was soft and pleasant to touch.

Study 3 replicated the results of Study 1 in a real-world setting, using a more heterogeneous population than the previous studies. Because of this, we have more confidence that our results will generalize to the general population. A touch element that provided positive sensory feedback incorporated into a real marketing brochure with a congruent message was able to increase attitude toward the brochure and behavioral intentions among recipients who were high in Autotelic NFT without diminishing attitude toward the brochure or behavioral intentions among recipients who were low in Autotelic NFT. This demonstrates that incorporating a touch element into a message does result in a net increase in persuasion, even if the touch element does not provide any additional instrumental information.

We find in three studies that for individuals who are motivated to touch because it is fun or interesting, marketing communications that incorporate touch do

lead to increased affective response and increased persuasion, even when the touch does not provide useful product-related information. This persuasive effect occurs particularly when the touch provides neutral or positive sensory feedback. Individuals who are not as motivated to touch for fun will also be persuaded by a communication that incorporates touch when they are able to make sense of how the touch relates to the message. This research suggests that the marketing implications of touch are much more substantial than previously thought and that touch can be incorporated into marketing in a broad variety of contexts. Individuals that enjoy touch are drawn to opportunities to touch, and are likely to respond to opportunities to touch clothing, paper goods, and other products that provide positive sensory feedback even if they are not in the process of evaluating the product. Creating a display that encourages touch may lead customers to interact with products that they otherwise would have ignored, and may increase impulse and unplanned purchases. In the area of product packaging, this research suggests that the packaging opportunities are not limited to providing information about attributes of a product through touch. New print technologies that provide tactile effects encourage consumers to touch. A product package that is interesting to touch may increase sales of the product even if the opportunity to touch does not provide additional product attribute information.

Finally, this research suggests that touch can be used as a persuasive tool in direct mail and print advertising. Incorporating touch that provides positive sensory feedback into an ad increases attitude toward the ad and persuasion even if the touch provides no useful information about the product. Recent trends in advertising have focused on the experiential and aesthetic aspects of communication. Incorporating touch may be the next step in adding a hedonic or experiential aspect to advertising and other marketing communications.

### **Oh! The Smell Of Spring: Consumer Memory For Product-Intrinsic Scent Versus Color**

Aradhna Krishna, University of Michigan  
May Lwin, Nanyang Technological University,  
Singapore  
Jochen Wirtz, National University of Singapore  
Maureen Morrin, Rutgers University

Firms have long used color to help create strong and favorable brand associations in consumers' long-term memories. For example, McDonalds has come

to be strongly associated with the yellow color of its arches, and Tiffany jewelers has come to be strongly associated with the blue color of the boxes it uses for packaging. The purpose of the present research is to a) examine the extent to which a less-well-understood type of product characteristic, namely, product-intrinsic scent, improves brand memory and to b) compare its effectiveness relative to that of visual cues (such as product color). By product-intrinsic scent, we refer to scent that is part of the product itself (i.e. a moisturizer that emits a product scent). Thus, the type of scent we investigate in this research differs from the focus of most prior work in the consumer literature, which has largely looked at the impact of ambient odors (e.g., Mitchell, Kahn and Knasko 1995; Morrin and Ratneshwar 2003; Spangenberg, Crowley and Henderson, 1996).

We first draw upon research in psychology that suggests memory traces linked to scent may be more resistant to decay over time compared to traces encoded with cues from other modalities such as visual and verbal cues (Herz 2000, Lawless and Engen 1977). Scent-based memory traces may exhibit less retroactive interference than those based on visual and verbal cues (Zucco 2003). We also draw upon research on cue congruity and expect that memory cues that are semantically congruent with the target information will be more effective at enhancing retrieval. Thus, we expect that product-intrinsic scent cues will be more effective than product-intrinsic color cues at enhancing memory a) over longer periods of time and b) when it is semantically congruent with the target.

We present the results of three experiments in which we manipulate the scent and color of products (e.g., facial tissues, pencils, moisturizers) and subsequently test consumers' memories for brand name and attribute information. We find strong support for the expectation that scent tends to be more effective at enhancing consumer memory over longer periods of time (from 3 to 5 weeks) and partial support for the notion that cue congruity moderates this effect.

The first study was a small-scale, exploratory effort to see whether product-intrinsic scent is indeed capable of enhancing consumer memory for brand information over time (in this case, after a two-week delay from the time of exposure) and whether scent-based retrieval cues are at least as effective as color-based retrieval cues. In this study, we used facial tissues that had been infused with a lime scent (or not) and contained a peach color (or not) and found

that the scent at least directionally improved brand name recall, whereas the color did not.

In study 2, we infused pencils with either a congruent or incongruent scent and tested participants' memories for both the brand name and ad claim recall after different lengths of delay from the time of encoding. We found that the scented pencils exhibited higher brand name and ad claim recall, and that the congruent scent was generally more effective than the incongruent scent.

In study 3, we infused a body moisturizer with either a congruent or incongruent scent and also infused this product with either a congruent or incongruent color.

We again measured brand name and ad claim recall after different lengths of time delay from the point of encoding. Replicating the results of study 2, we found again that the product infused moisturizers resulted in higher brand name and ad claim recall levels, especially after time delays. Here we found that color was relatively ineffective at enhancing recall.

For further information contact: Aradhna Krishna, Stephen M. Ross School of Business, University of Michigan, 701 Tappan St., Ann Arbor, MI 48109-1234.

## Feeling About Thinking: The Resolution Of Simultaneous Conflicting Preferences

Samuel D. Bond, Duke University  
James R. Bettman, Duke University  
Mary Frances Luce, Duke University

### ABSTRACT

Consumers often face conflict between what ‘makes sense’ and what ‘feels right’ – between logical analysis and intuition. Extending dual-systems approaches to human cognition, we suggest that consumers often resolve this conflict by their subjective assessment of ‘reason’ versus ‘instincts’ as a basis for deciding.

A number of recent theories postulate the existence of two broad-based systems of judgment and reasoning (e.g., Epstein 1991, Slovic 1996, Smith & Decoster 2000). One system (*system-1*) is relatively automatic, affect-laden, and based on recognition of patterns or associations; outputs of system-1 may be achieved without understanding the underlying process (“it just feels right”). The other system (*system-2*) is consciously directed, effortful, and based on rules or computation. Outputs of system-2 take the form of conclusions arrived at intentionally (“it makes sense”). Importantly, although the two systems operate in parallel, their relative contributions vary widely across situations.

We focus on decisions for which the output of experiential processing is distinct from the output of analytical processing (i.e., the systems imply different choices), and we use the term *simultaneous conflicting preferences* to capture the tension inherent in these situations. In such settings, we suggest the following: 1) choices will be guided by the relative weighting of outputs from each system, and 2) this weighting will be determined (in part) by the individual’s assessment of each system as a basis for judgment. This paper postulates two mechanisms that may affect the weighting process.

In the first of our mechanisms, affect may be associated with a processing system itself, distinct from properties of the stimuli being considered (e.g., if individuals consider reliance on intuition to be unfavorable, they will weight experiential outputs less heavily). Study 1 examined this mechanism using the *ratio-bias* problem (Epstein et al. 1992), a game of chance in which participants choose between two gambles: one is perceptually appealing, while the other offers superior odds. Prior work has established that the perceptually appealing gamble appeals to the experiential system, while the probabilistically superior gamble appeals to the analytical system. We

predicted that by manipulating affect associated with each system, we could influence choice of the normative option.

In order to make valenced representations of experiential or analytical processing more accessible, we utilized a semantic priming procedure (Higgins et al. 1977). We first developed and pretested four lists of words: 1) *experiential-positive*, 2) *experiential-negative*, 3) *analytical-negative*, and 4) *analytical-positive*. Using these lists, four versions of a scrambled sentence task (Srull and Wyer 1979) were created and administered in a between-subjects design. Participants undertook the priming task and then took part in an adapted version of the ratio-bias problem. They were presented with two trays containing red and white jellybeans, asked to draw a bean from the tray of their choice, and told they could win a small prize by drawing a red bean. In each of four target trials, one tray contained a greater *number* of winning beans but a smaller *ratio* (e.g., 9/100 vs. 1/10). Later, participants completed a short form of the Rational-Experiential Inventory (REI) scale (Pacini & Epstein 1999), which measures chronic thinking style (and was used as a covariate).

The data revealed a pattern consistent with our hypothesis. A significant primed-system\*valence interaction revealed that the effect of valence on choices depended on the processing mode being primed. Compared to negative experiential primes, positive experiential primes were associated with less normative responses ( $M = 1.14$  vs.  $1.66$  draws from the inferior tray). However, compared to negative analytical primes, positive analytical primes were associated with more normative responses ( $M = 1.44$  vs.  $0.87$ ). These findings are consistent with our model and inconsistent with other accounts (e.g., behavioral priming, mood effects.)

Our second mechanism borrows from the notion of metacognitive ‘fit,’ by which individuals utilize processing approaches that are compatible with features of the task (Higgins 2000; Nowlis & Simonson 1997). Study 2 examined the possibility that utilitarian judgment domains possess better ‘fit’ with analytical processing, while hedonic domains are conducive to reliance on experiential processing (Pham 1998). A second motivation for Study 2 was contemporary research suggesting that prior-formed,



*implicit* attitudes may continue to exist alongside newly-formed, *explicit* attitudes (Wilson et al. 2000; Petty et al. 2006). We conjectured that it should be possible to vary the impact of implicit attitudes on behavior by manipulating the ‘fit’ of a decision task with reliance on instinct.

Our procedure involved a process of induced attitude change (Petty et al. 2006). Participants formed positive or negative attitudes toward two target brands via a conditioning procedure in which brand names were paired with valenced images. The brands were drawn from either hedonic or utilitarian product categories (chocolate bars or alkaline batteries). Next, participants encountered objective information that either *agreed with* or *contradicted* their conditioned associations, rated each brand, and indicated which one they would choose. Finally, participants related their decision process using two measures: Task-Specific-Thinking-Style (TSTS – Novak and Hoffman 2006) and Heart vs. Mind (Shiv and Fedorikhin 1999).

The rating and choice measures were combined to form a measure of *combined preference*. Predictor variables included: 1) product domain and 2) the

presence or absence of conflict between conditioned attitudes and objective information. As predicted, the conflict and domain variables interacted to affect relative preference: in the utilitarian domain, participants preferred the objectively superior brand regardless of their conditioned attitude; however, preferences in the hedonic domain were dramatically affected by conditioning. Further analyses revealed that within the conflict conditions, effects of product domain were mediated by both the TSTS measure and Heart vs. Mind scale.

This paper sheds light on situations where instincts and reason produce contradictory responses. We have created a framework for understanding how situational variables influence the weight accorded each processing mode and tested two of these variables empirically. The theme to our framework is that temporary, malleable construals of experiential and analytical processing (“feeling about thinking”) are critical determinants of consumer decision making.

For further information contact: Samuel Bond; Fuqua School of Business; Duke University; Box 90120; Durham, NC 27708; E-mail: samuel.bond@duke.edu

## Affect and Asymmetric Association of Positive and Negative Judgments

Christine Page, Skidmore College  
Bruce E. Pfeiffer, University of Cincinnati  
Paul M. Herr, University of Colorado

### ABSTRACT

Herr and Page (2004) investigated the cognitive structure of affective judgments by measuring their accessibility, using response latencies to direct attitudinal queries. Participants responded faster to liking queries than disliking queries, suggesting that the process of making liking judgments may be more spontaneous and require less cognitive effort than making disliking judgments. Their results support prior research suggesting that positive and negative affect may be more appropriately considered separable dimensions (Cacioppo and Berntson 1994), but fails to explain the *source* of the structural asymmetry.

A possible source of the structural asymmetry is mood. In line with mood congruency research (e.g. Kamins and Marks 1991), consistency between an individual's mood and processed material may lead to faster responses than when an inconsistency exists. Hence, the faster responses to liking queries than disliking queries found by Herr and Page (2004) may reflect participants generally being in positive moods (Diener and Diener, 1996). Given this theoretic stance, participants in negative moods should have slower responses to liking queries and faster responses to disliking queries compared to those in positive or neutral moods. Hence, the asymmetry between the liking and disliking judgments may be attenuated or reversed for persons in a negative mood. This is examined in two experiments.

*Experiment 1.* Isen's research has demonstrated that even mild mood-inducing events are sufficient to influence evaluations (e.g., Isen and Shalcker, 1982). In line with this view, Experiment 1 examines the possibility that the valence of the stimuli induces transitory moods. Moreover, to investigate possible stimulus-induced mood effects, we measure both response latencies and scaled responses. The response latencies measure the *accessibility* of the affect linked to the stimulus. The impact is predicted to be in a mood congruent direction; positive moods influence people's evaluations in a positive way (e.g., Berkowitz, 1987) and negative moods influence people's evaluations in a negative way (e.g., Isen and Shalcker, 1982). Consequently, we expect latencies for the negative adjectives (e.g., dislike) to be faster than the latencies for the positive adjectives (e.g., like) in response to a negative (e.g., python) vs.

positive (e.g., puppy) stimulus. Likewise, responses should be faster for positive than negative adjectives when presented with positive vs. negative stimuli. Both should be faster than responses to neutral stimuli, which presumably do not evoke a valenced mood.

If, however, positive and negative moods are asymmetric in their activation of material in memory, then extremely negative stimuli may not be strong enough to produce these response latency differences. Hence, we also measure scaled responses of participants' self-report of their emotions toward the stimuli. This provides another measure of the effect of the stimuli on emotion to compare with the response latencies.

With respect to response latencies, we found responses to extremely positive stimuli (e.g., puppy) to be faster than responses to extremely negative stimuli (e.g., Hitler), regardless of the valence of the judgment (e.g., like or dislike). Hence, the extremity of the stimuli appeared to influence responding in a manner consistent with a fleeting mood produced by the stimuli, whereby a positive mood led to fairly effortless responses to *all* descriptors, while a negative mood triggered more effortful (slower) responses. We also found responses to positive adjectives (like) to be faster than responses to negative adjectives (dislike), irrespective of stimulus valence. These findings are inconsistent with tenets of mood congruency but are wholly consistent with the asymmetry reported by Herr and Page (2004) whereby positivity appears to be dominant in reporting affective judgments.

With respect to the scaled response data, participants responded with greater agreement to positive adjectives when presented with extremely positive stimuli than extremely negative stimuli. Similarly, participants responded with greater agreement to negative adjectives when presented with extremely negative stimuli than extremely positive stimuli. These results contrast the response latency findings. That is, when forced to provide rapid evaluations, individuals demonstrated a positivity bias, consistent with the asymmetry reported by Herr and Page (2004). However when given time to think, individuals reported their evaluations in a mood congruent manner.

*Experiment 2.* That mood congruent effects were *not* found in the response latency data may imply that the transient mood induced by the stimuli was not strong enough to influence individual's automatic responses. Consequently, to further assess the impact of mood on affective evaluations, Experiment 2 uses a more overt mood manipulation, using film clips prior to the response latency task. If a stronger mood manipulation is able to reverse the asymmetry, we may not only implicate mood as a source of the asymmetry, but also assume that mood congruence is not an artifact.

The results for Experiment 2 were similar to Experiment 1. We replicate the stimulus extremity effect; the extremity of the stimuli appeared to influence responding in a manner consistent with a fleeting mood produced by the stimuli. We also replicate the affective evaluation effect. Overall responses to positive adjectives were faster than

responses to negative adjectives, irrespective of stimulus valence. Again, these results are *not* consistent with mood congruency in which adjectives congruent with the stimuli are responded to faster.

*Discussion.* Experiments 1 and 2 demonstrated that, regardless of mood (positive or negative), faster responses were provided for positive than negative queries. This does not, however, mean that mood isn't implicated in responding. We, and Herr and Page (2004) find a main effect for stimulus extremity. Participants respond faster to positive stimuli than negative stimuli regardless of judgment valence, judgment task, and mood. The extremity (valence) of the stimulus appears to influence responding, as expected if the stimuli themselves create a transitory, weak mood. Future research should further investigate possible mood effects on affective processing.

### Repetition Aversion

Mauricio Mittelman, INSEAD  
Amitava Chattopadhyay, INSEAD  
Miguel Brendl, INSEAD

#### ABSTRACT

Consumer researchers have provided strong evidence that preferences often are constructed at the time consumers make choices. In particular, it has been shown that consumers are influenced by the way choices are framed (Slovic 1995). Following this path, this research explores how two ways of choosing multiple items affect preferences for more diversified sets.

People can choose multiple items either by selecting each item individually or by indicating which group of items (that were previously arranged together) they want. For example, three candy bars can be chosen by selecting three single units or by selecting from among packages that contain three units. If the set of potential combinations is identical in both types of choice, then any difference in how much diversified the chosen set of items is can only be attributed to the way the choice is framed.

In this research we posit that, when making a series of choices, people have an urge to switch away from what has just been chosen. Therefore, we predict that choosing multiple items individually results in more diversified sets than choosing multiple items from among pre-specified sets (the urge to switch cannot arise when choosing from among grouped options because grouping eliminates having to make several choices). In study 1 we provide support for the hypothesis by testing this prediction directly; in study 2 we provide an additional test by manipulating the salience of previous choices.

In study 1, respondents chose two candy bars. We found that those who chose a pair of candy bars were more likely to pick two different brands than those who chose two single candy bars individually. In addition, we found that it does not make a difference whether the choice of two individual candy bars was

unconstrained or forced to be done sequentially, which suggests that when people choose items freely, they do make the decisions in steps. In study 2, respondents chose three candy bars in three different points in time: now, in one week, and in two weeks. We found that by simply reminding respondents about what they have chosen (half had the previous choices displayed while making subsequent choices and half did not), the set of selected three items became more diversified. When previous choices were salient, respondents felt the urge to choose something different; when previous choices were not salient, there was nothing in their minds to switch away from, so they were more likely to choose what they liked most.

In summary, this research investigated the effect of framing the simultaneous choice of multiple items in two different ways. It showed that people are more likely to choose diversified sets of items when choosing from among single items rather than from among pre-grouped items. Existing theories of variety-seeking behavior suggest that people seek variety as a means to achieve a goal. That is, people may seek stimulation (Berlyne 1960); avoid satiation (McAlister 1982); minimize the risk of consuming something undesirable (Simonson 1990); or portray themselves as open-minded (Ratner and Kahn 2002) by choosing a diversified set of items. What all these explanations have in common is the focus on the value of the choice outcome. In contrast, but not to the necessary exclusion of these theories, we demonstrated that the way the choice is framed also affects the likelihood of choosing a more diversified set of items.

For further information contact: Mauricio Mittelman ; INSEAD, Marketing Department ; Boulevard de Constance ; 77305 Fontainebleau Cedex, France ; mauricio.mittelman@insead.edu

### **Behavioral Consequences Of Regulatory Fit In Consumer Behavior**

Session Chairs: Cecile K. Cho, Columbia University

Jonathan Levav, Columbia University

Discussant: Angela Y. Lee, Northwestern University

#### **Too Much Regulatory Fit? A Case Of “Buridan’s Ass” In Consumer Choice**

Jonathan Levav (Columbia University)

Ran Kivetz (Columbia University)

Cecile Cho (Columbia University)

Lewin (1933) and Miller’s (1944) classic treatments of goal conflict as competing approach and/or avoidance forces would imply that having multiple means to achieving a goal would be analogous to an approach-approach conflict. We raise the possibility that having two equally attractive means to fulfilling the goal may heighten the decision maker’s experienced conflict and hence increase context dependence. Drawing on the literature on regulatory orientation and fit, we propose that when there is a fit between the salient regulatory goal and the nature of attributes (i.e., means to the goal), the tradeoff conflict experienced becomes heightened. Specifically, we predicted that given a fit between one’s regulatory orientation and the nature of the attributes being considered, one’s context dependence in choice would increase as compared to when this fit is absent. We test this prediction using the compromise, asymmetric dominance effect and deferral framework in four studies (Huber, Payne, Puto 1982; Simonson 1989).

Studies 1 and 2 tested the main hypothesis using the compromise and asymmetric dominance effect paradigms, respectively. In both, we created conflict by using tradeoffs involving attributes that are both high in promotion strength (or both high in prevention strength), and priming participants with either ideal (promotion) or ought (prevention) goals (Higgins, Roney, Crowe and Hymes 1994). It was predicted that preference for the compromise or the asymmetrically dominant option would be higher when one’s goal state is promotion-oriented (fit) than when one’s goal state is prevention-oriented (nonfit). Results showed robust support for the hypothesized fit effect; choice share of compromise and asymmetrically dominant options were consistently higher under fit than under nonfit conditions for thirteen out of sixteen decision categories. Study 3 showed participants reporting greater experienced conflict under fit than under nonfit condition. Study 4 demonstrated that when given the chance to resolve the conflict (one attribute high in promotion and one high in prevention), respondents chose the option which was more attractive on the attribute that fit their regulatory orientation.

For further information contact: Cecile K. Cho; Columbia Business School; 3222 Broadway, 311 Uris Hall; New York, NY 10027; Phone: (917) 690-8362; E-mail: kc179@columbia.edu

#### **The Fit Effect Between Regulatory Goals And The Mode Of Decision Strategies**

Wen Wan (Northwestern University)

Jiewen Hong (Northwestern University)

Brian Sternthal (Northwestern University)

In the present research, we examine the impact of the fit between regulatory goals and certain decision strategies on individuals’ liking of a decision outcome. Individuals can approach the same goal with either a promotion focus, which is concerned with advancement and growth; or with a prevention focus, which is concerned with the attainment of safety and security (Higgins 1997). Previous research suggests that regulatory fit occurs when promotion-focused people adopt eagerness strategy and when prevention-focused people adopt vigilance strategy. We extend the previous research by identifying other decision strategies that generate regulatory fit. Specifically, we propose that locomotion decision strategies (strategies involving goal-related movement) fit with a promotion focus; whereas assessment decision strategies (strategies involving goal-related comparison) fit with a prevention focus. Furthermore, the fit between decision makers’ regulatory goals and the strategy they use to make a decision can affect their liking of the decision outcome.

Results from four experiments provide convergent evidence for our predictions. The regulatory fit effect on individuals’ liking of the decision outcome was obtained by using different manipulations of regulatory goals including an owl and cheese prime (Study 1) and a word fragment completion task (Studies 2-4), and different decision strategies including simultaneous versus sequential information display to induce locomotion versus assessment decision strategy (Studies 1 and 3), instructing participants to be quick versus accurate in their decision making (Study 2), or asking participants to use an elimination-by-alternative versus elimination-by-aspect decision strategy (Study 4). We also show that the subjective experience of “feeling right” mediates the effect of regulatory fit on judgment.

For further information contact: Wen Wan; Northwestern University; 2001 Sheridan Rd.; Evanston, IL 60208; Phone: (847) 491-5896; Email: wwan@kellogg.northwestern.edu

### **Effects Of Regulatory Focus And Regulatory Fit On Consumer Search And Consideration Sets**

Michel Pham (Columbia University)  
Hannah Chang (Columbia University)

This research examines how consumers' regulatory focus states influence information search behaviors and consideration set sizes of consumers. We hypothesize that under promotion-focus, consumers will search information in a more global, "top-down" manner and generate a bigger consideration set. In contrast, under prevention-focus, consumers will search information in a more local, serial fashion and generate a smaller consideration set (see Pham and Higgins, 2005). Moreover, consumers will experience regulatory fit when the information structure presented matches their underlying search orientations and consideration set sizes.

Results from three studies with 276 participants provide initial support for our speculations. After

priming regulatory focus states using hypothetical dining scenarios, we presented participants a hypothetical prix-fixe menu on the computer and asked them to select their three-course prix-fixe meals (study 1). We found that promotion-focus participants searched proportionally more pages and spent proportionally more time viewing pages in the top-level (e.g., culinary subcategories: salads, appetizers, soups), whereas prevention-focus participants searched proportionally more pages and spent proportionally more time viewing bottom-level pages (e.g., specific dishes: minty cucumber soup). Prevention-focus participants also opened menu pages at the subcategory level more serially than did promotion-focus participants. In subsequent studies, we modified the restaurant menu and varied its consideration set size (study 2) or its information structure (study 3). Participants in the fit conditions gave higher monetary evaluations and evaluated the menu more positively than did those in the nonfit conditions. In addition, the observed fit effects were mediated by participants' evaluations of menu interface. We are in the process of replicating our results in a different product domain.

For further information contact: Hannah Chang; Columbia Business School; 3022 Broadway, 515 Uris Hall; New York, NY 10027; Phone: (951) 565-0570; E-mail:hc2126@columbia.edu.

## Motives for Charitable Giving

Session Chair: Deborah A. Small, University of Pennsylvania  
 Discussant: Dipankar Chakravarti, University of Colorado, Boulder

### Friends Of Victims: Personal Experience And Prosocial Behavior

Deborah A. Small, University of Pennsylvania  
 Uri Simonsohn, University of Pennsylvania

Economic theory assumes that people are motivated exclusively by self-interest. However, abundant experimental evidence, and charitable donations totaling \$250 billion in the United States in 2004 (Giving USA Foundation 2005) all demonstrate that people give generously, sometimes with personal sacrifice, to help others. What drives people to give to charity, and how do they choose among competing causes?

The existing literature on charitable giving choices has focused not on consumers' motivation for giving and preferences for causes, but has instead emphasized solicitation strategies. In this paper, we focus on what drives consumers to care about and donate to particular causes. Because much real-world charity outside the laboratory goes to organizations that target specific misfortunes rather than individuals, understanding prosocial behavior towards misfortunes is therefore fundamental for gaining an understanding of real-world charitable giving.

Why do some people donate money to researching Alzheimer's disease and others to nourishing children in Africa? Why do some people 'Race for the Cure®' of breast cancer while others walk to cure multiple sclerosis? We begin to address this question by examining how knowing someone with a specific misfortune affects prosocial behavior towards others with that same misfortune.

Although in our studies we examine a variety of relationships with victims (friends, colleagues, relatives, significant others, etc.), for simplicity of exposition, we refer to people who have any kind of personal relationship with a victim as "friends of victims" and to their relationships as "friendships."

Anecdotal evidence suggests that friends of victims are particularly generous to other victims of their friends' misfortune. Celebrities such as former First Lady Nancy Reagan (Alzheimer's disease), soccer star Mia Hamm (Bone marrow disease), and actor Rob Lowe (Breast cancer), actively participate

in efforts to help others who share their loved ones' misfortunes. Similarly, all national presidents of Mothers Against Drunk Driving (MADD) have joined the organization after a family member was killed by a drunk driver.

Pairing anecdotal evidence with recent research showing that experienced information is more likely than observed information to lead to action (Simonsohn et al. 2004), we hypothesize that friends of victims will behave more prosocially towards other victims of the same misfortune. This effect could arise for a variety of reasons. In particular, an association between knowing people with a given misfortune and prosocial behavior towards others with the same misfortune could be explained by (i) a spurious association due to unobservables, (ii) a self-interested motive on the part of givers, and/or (iii) differences in informational content or salience between people who do and do not know a victim. We argue that, above and beyond these possible mechanisms, friendship with a victim affects social preferences.

We present four studies: In Study 1 we seek to establish empirically that friends of victims act more prosocially towards other victims. Study 1 surveyed volunteers at various organizations and found that friends of victims tend to volunteer at organizations that target their friends' misfortunes. Study 2 examined the causal nature of the prosocial effect of friendship with a victim, with an experiment in which (i) friendship, (ii) victimhood and (iii) the identity of the potential aid recipient were randomly assigned, replicating the findings from Study 1.

Study 3 sought to distinguish caring from perceived suffering as the mechanism behind the friend-of-victims effect. We surveyed individuals about their reactions to hypothetical victims and their relationships with actual victims. The results show that friendship with a victim increases caring for other victims, but that it has no effect on their perceived suffering. Finally, Study 4 found that the increased caring documented in Study 3 fully mediates the effect on prosocial behavior.

The results of the four studies presented in this paper support the hypotheses that friends and relatives of victims are especially prosocial toward other people with the same misfortune. More

importantly, by replicating these results in an experiment with random assignment of friendship, victimhood and potential recipient of charitable giving, we demonstrate that the relationship is causal.

After ruling out the possibilities of spurious association, self-interested motives, and asymmetric information, we further sought to isolate the precise mechanism by which friendships influence prosocial preferences. We found that friendship with a victim is not related to perceived suffering of others. Rather, it is related to variables associated with caring (i.e., the weight placed on the utility of other victims), particularly social responsibility and social distance, and that “caring” variables mediate the relationship between knowing a victim and prosocial behavior.

In addition to advancing the understanding of consumer behavior in this domain, these findings have important practical implications. To increase donations, charities could strive to create personal relationships between victims and potential benefactors. Charities do often describe or show images of specific victims to potential donors in their advertising campaigns, but such attempts seem designed to benefit from the identifiable victim effect (Kogut and Ritov 2005a, b; Small et al. 2006), rather than to create “friendship” between donors and victims. Our findings suggest that above and beyond making victims identifiable, creating a personal link with the victim would likely be an effective intervention. If, as our results show, a relationship created in the lab in a few minutes can significantly increase giving, then surely a charity can inspire a connection between a victim and a benefactor through its solicitations.

Perhaps an even more direct implication of our findings is that charitable organizations could target individuals who are connected to victims. The success of fundraising events such as the Race for the Cure® or the MS Walk may be explained in part by the fact that for such events, participants are typically victims or friends of victims who solicit money from their friends, effectively reducing the social distance between donors and other victims of the same misfortunes. This type of fundraising, then, uses a special form of viral marketing that taps victims’ social networks for donation requests, thereby identifying high yield donors.

In sum, the results show that having a personal relationship with a victim has a powerful impact on prosocial motivation towards other people with the same misfortune. More generally, they highlight the important impact of unique life experiences on behavior.

For further information contact:

Deborah Small; The Wharton School; 215.898.6494; deborahs@wharton.upenn.edu

### **Aiding Victims Of Hurricane Katrina: Helping When It Hurts (Me) The Most**

Michael I. Norton, Harvard Business School  
Amy J.C. Cuddy, Northwestern University

Perhaps the most shocking development in the aftermath of the Hurricane Katrina disaster was the sluggish and inadequate response to victims who were clearly in dire need of assistance. Because of insufficient water, food, and medical supplies, stranded infant and elderly survivors of the storm died of heat exhaustion and dehydration (Breed, 2005). Even after extensive mainstream news coverage of the miserable conditions at the Convention Center and Superdome in New Orleans, days passed before water, food, and medical supplies were delivered and before victims were finally evacuated. Michael Brown, the Director of the Federal Emergency Management Agency, famously joked in emails about how his clothing looked on television as he failed to respond to emails which – with increasingly frantic tones – described the unfolding crisis. Why was Brown’s response, and the response of those responsible for handling the crisis, so muted and so delayed? Was there something about those responsible for helping that led them to withhold aid? Was there something about those who needed help that failed to motivate those responsible to engage? We suggest that it was a combination of the two: The particular mix of those responsible for helping and those in need of help contributed to the response.

This research examines how differences in observer’s beliefs about the emotional anguish of victims may have contributed to the inadequate helping response to Katrina victims, who disproportionately were Black, Latino, and poor. After encountering tremendous stress and loss, many of these victims were likely experiencing complex and intense emotions such as grief, mourning, and dismay. We propose that the modal consumer of news coverage of Katrina – middle-class White Americans – failed to perceive Katrina victims as experiencing those emotions, and that this denial enervated the overall helping response. In real-life emergencies, people more generously help ingroup members than outgroup members (Levine, Prosser, Evans, & Reicher, 2005). The present research examines how people’s inferences about the emotional states of victims may both trigger and reduce helping responses to outgroups. We



emphasize the role of intergroup bias in this process, predicting that (a) people will believe that outgroup victims will experience less anguish than ingroup victims (both Whites observing Black victims, and non-Whites observing White victims), and (b) these differences will predict willingness to come to the aid of members of outgroups.

In Study 1, two weeks after Hurricane Katrina struck the southern United States, we assessed White and non-White participants' impressions of the emotions experienced by victims, as well as their willingness to help such victims. Participants believed that outgroup victims experienced fewer "uniquely human" emotions (e.g., anguish) than ingroup victims. These differences in inferences about the emotions experienced by victims predicted time volunteered for hurricane relief efforts. In particular, participants who did not dehumanize members of outgroups were more likely to volunteer than those who did dehumanize. But why would a failure to infer emotions lead to less helping? Study 2 demonstrated that sympathy mediates this effect. When White participants read about Black victims, they failed to attribute human emotions to these victims, and this failure prevented them from feeling sympathy, which in turn made them less supportive of government-administered hurricane relief programs. When White participants read about White victims, on the other hand, they viewed them as experiencing these human emotions, reported sympathetically feeling these emotions themselves as a result, and were more likely to support these government programs. The impact of these differences in inferences about the emotions experienced by Black and White victims on helping were similar in scope to the impact on helping of participants' dispositional empathy. In other words, participants helped White victims as if everyone in the sample was highly empathic, while participants helped Black victims as though everyone in the sample was low in empathy.

Taken together, these results suggest a complex path by which characteristics of helpers and those in need of help interact to produce altruistic responses. When witnessing similar individuals in need, observers perceive their suffering, leading them to experience those emotions themselves, which then motivates efforts to help. When viewing dissimilar individuals in need, on the other hand, observers fail to perceive their suffering, fail to experience that suffering, and therefore fail to act. Our current work explores interventions to change these processes, in an effort to motivate increased altruism toward those in need – regardless of who they are.

For further information contact: Michael I. Norton, Harvard Business School, 617.496.4593, mnorton@hbs.edu

### **Why Would I Feel Guilty For Giving A Homeless Guy A Dollar? How Endowment, Peer Pressure, And Guilt Affect Charity Preferences**

Michal Strahilevitz, Golden Gate University

This paper explores the endowment effect in the context of charitable giving. Kahneman and Tversky (1979) demonstrated the phenomenon known as loss aversion – that losses loom larger than gains. In this research, a series of experiments will be presented that demonstrate a phenomenon that can best be described as "take-aversion" -- that taking away (from a charity) looms larger than not giving (to that same charity). The studies presented control for status-quo bias and charity preference. I also examine the effects of peer awareness (whether the decision to donate is made in the presence of fellow students) and guilt on the take-aversion.

Data is also presented that compares take aversion (with donations) to loss aversion (with various objects as well as with money). It is found that take-aversion can be even more powerful than loss aversion, regardless of whether the endowment in question is monetary, hedonic, or utilitarian. For example, even with a population that prefers receiving a self-endowment (e.g., money, keychain, candy) over having money donated to a charity in a pure choice condition, subjects who are initially endowed with a donation to charity are less likely to trade that donation for a self-endowment (e.g., money, keychain or candy) than subjects endowed with receiving something for themselves (e.g., money, keychain, candy) are to trading that in for a charitable donation. While aversion to un-doing a donation is stronger when others are aware of the subjects' decisions, it exists even when the decision of taking for oneself or giving to charity is made privately (i.e., not in the presence of one's peers).

Take-aversion is also observed in cases where subjects are endowed with a donation to one charity and given the option of moving that donation to another charity. For example, subjects endowed with a donation to March of Dimes tend to stick to that charity when given the option of switching to the World Wildlife fund, and subjects endowed with a donation to the World Wildlife Fund tend to prefer to keep the donation with the World Wildlife Fund rather than switch it over to the March of Dimes).

Guilt is demonstrated to play a key mediating role in the aversion respondents demonstrate to switching from charitable giving to getting something for oneself, and as well as the aversion they demonstrate to switching from donating to one charity (i.e., the endowed donation) to donating to another charity.

After presenting the results, as well as a theoretical explanation for the findings, I will discuss how the guilt of taking (from a good cause), the pain of losing (one's own wealth), the joy of giving (to a good cause), and the fun of gaining or acquiring (for oneself) differ from one another in terms of both the nature and intensity of the emotions experienced.

Implications to fund-raising that arise from having a better understanding of what take-aversion and loss aversion share in common, and how they differ, will also be examined. Specifically, the phenomenon "charity contracts" where donors sign long term commitments to sponsor a specific "unit of need" (be it a child, school, or stray animal) will be discussed. This fund-raising tool allows charities to play on the negative emotions of undoing a charity commitment, and may lead donors to end up making larger contributions to a specific charity over time than they had originally intended.

For further information contact: Michal Strahilevitz,  
Golden Gate University, 415.442.7877,  
MarketingProfessor@gmail.com

## Influence of Accuracy Motivated Information Processing on the Evaluation of Multiple Gains and Losses

Dorothea Schaffner, New York University  
 Durairaj Maheswaran, New York University  
 Andreas Herrmann, University of St.Gallen  
 Pragya Mathur, New York University

### ABSTRACT

This study investigates the perception of values and more specifically how individuals form preferences for integrating or segregating multiple gains and losses. Inspired by Kahneman and Tversky's (1977) prospect theory a large body of literature has investigated the patterns of preference formation when evaluating consolidated versus segregated gains and losses. On the basis of prospect theory's value function Thaler developed the hedonic editing rules: People will prefer a segregation of gains and an integration of losses (Thaler, 1999). Theoretical and empirical evidence comprehensively explain the preference patterns of judgment of multiple gains and losses (Linville & Fischer, 1991; Thaler & Johnson, 1990). However, we argue that the previous findings on the valuation of gains and losses are a result of heuristic processing motivated by feelings and that the mode of information processing - heuristic vs. systematic - takes a significant impact on how values are perceived. There are two stances that support this notion. First, the hedonic editing rules on the basis of prospect theory and subsequent research by Linville and Fischer (1991) and Thaler and Johnson (1990) emphasize emotional aspects of preference formation that may foster a heuristic mode of information processing. They explicitly ask subjects to judge segregated gains or losses on the basis of their feelings, stressing happiness as the goal of the preferred outcome. Additionally, in the context of gains and losses emotions are caused by the events itself: Gains make people feel happy, whereas losses make people feel upset (Kahneman & Tversky, 1979; Linville & Fischer, 1991; Thaler & Johnson, 1990). Second, research by Hsee and Rottenstreich (2004) demonstrates that heuristic processing causes the value function to be shaped as found in prospect theory whereas systematic processing leads to a linear value function (Hsee & Rottenstreich, 2004). Based on this reasoning we conclude that preferences formed under systematic processing and other motivations such as accuracy motivation remain unclear. Therefore, this study attempts to enhance the understanding of how motivation and subsequently the way of information processing will influence the perception of values.

The study will rely on the logic of the heuristic-systematic model (HSM) and its assumptions on the

impact of motivation on information processing (Chen & Chaiken, 1999). The HSM differentiates two modes of information processing. *Heuristic processing* is based on heuristic cue information and is an emotional and cognitively minimally demanding way of information processing. *Systematic processing* is marked by a more cognitively demanding, logical, and analytical scrutiny of information processing (Chen, Duckworth, & Chaiken, 1999). Which mode predominates depends on the individual's motivation (Chen & Chaiken, 1999). *Accuracy motivation* reflects a perceiver's goal to judge on the basis of objectively valid arguments and therefore induces in most cases systematic processing (Agrawal & Maheswaran, 2005; Chen & Chaiken, 1999).

Building on this reasoning two hypotheses are developed to predict the preferences for segregated versus integrated gains and losses under valuation by feelings compared to valuation by accuracy.

**H1:** Valuation by feelings (as opposed to valuation by accuracy) will trigger heuristic processing (systematic processing) resulting in a higher (lower) preference for a segregation of multiple gains.

**H2:** Valuation by feelings (as opposed to valuation by accuracy) will trigger heuristic processing (systematic processing) resulting in a higher (lower) preference for an integration of multiple losses.

To test the hypothesis we conducted a 2 (motivation: valuation under accuracy motivation vs. valuation by feelings) by 2 (type of event: gain vs. loss) between subjects experiment. 170 undergraduate students participated in two purportedly unrelated studies. The first part of the study was a priming task to trigger either a valuation by feelings or a valuation by accuracy (Chen et al. 1996; Hsee & Rottenstreich, 2004). In the second part of the study subjects were asked to indicate their preferences for either segregation or integration comparing two scenarios: One scenario describing an integrated gain or loss, the other scenario describing a segregated gain or loss situation (Thaler, 1990; Linville and Fischer, 1991).

Results yielded a significant motivation by type of event interaction effect. Results of the single effect analysis supported our predictions on preferences for integration or segregation of gains: For subjects primed for valuation by feeling the preference for a segregation of gains was significantly higher than for subjects primed to value by accuracy. However, contrary to our predictions, in the case of losses motivation did not influence preference: All subjects preferred an integration of losses. The higher emotional impact for losses as compared to gains due to loss aversion could explain this finding. The negative emotion elicited by a loss may have caused subjects to process information more heuristically. In general, the current research establishes that motivation and subsequent information processing influences preferences when people value segregated versus integrated gains. Attention to this finding seems essential if valuation of gains and losses is to be fully understood. However, further work is needed to scrutinize the effects of emotions in the context of the valuation of losses.

#### REFERENCES

- Agrawal, N., & Maheswaran, D. (2005). Motivated reasoning in outcome-bias effects. *Journal of Consumer Research*, 31(4), 798-805.agraval\_2005
- Chen, S., & Chaiken, S. (1999). The heuristic-systematic model in its broader context. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology*. (pp. 73-96). New York: Guilford Press.chen\_1999\_1
- Chen, S., Duckworth, K., & Chaiken, S. (1999). Motivated heuristic and systematic processing. *Psychological Inquiry*, 10(1), 44.chen\_1999\_2
- Hsee, C. K., & Rottenstreich, Y. (2004). Music, pandas, and muggers: On the affective psychology of value. *Journal of Experimental Psychology: General*, 133(1), 23-30
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263-292
- Linville, P. W., & Fischer, G. W. (1991). Preferences for separating or combining events. *Journal of Personality and Social Psychology*, 60(1), 5-23
- Thaler, R. H. (1999). Mental accounting matters. *Journal of Behavioral Decision Making*, 12(3), 183-206
- Thaler, R. H., & Johnson, E. J. (1990). Gambling with the house money and trying to break even: The effects of prior outcomes on risky choice. *Management Science*, 36(6), 643-661

## Circles, Squares, and Choice: Graphical Priming Effects on Uniqueness and Variety Seeking

Michal Maimaran, Stanford University  
S. Christian Wheeler, Stanford University

### ABSTRACT

Research on human information processing shows that people are quite adept at disambiguating ambiguous stimuli and making generalizations from limited information (e.g., Higgins 1996; Schank & Abelson 1977). These processes can occur spontaneously, without the intention or awareness of the perceiver (e.g., Uleman, Newman, & Moscovitz 1996). In this paper, we test the limits and implications of these processes by examining whether people will extract higher-order constructs from impoverished stimuli that have no inherent meaning, such as arrays of geometrical shapes, and whether exposure to such arrays will systematically affect consumers' choices without their awareness or intention.

Specifically, we propose that individuals spontaneously and unintentionally extract abstract concepts from simple arrays of shapes, such as OOOXOO (Throughout this abstract 'O' represents a circle, 'X' a square and 'V' a triangle. In the description of Study 3, 'X' stands for an actual 'X'). Being primed with these types of arrays, we argue, can lead to activation of abstract concepts (in the above example, the concept of uniqueness), making them more accessible. We further propose that exposure to these arrays can affect consumer choice in a manner congruent with the activated construct. In contrast to most prior research on priming and automatic behavior, which has employed words (e.g., Bargh, Chen, & Burros 1996) or pictures or objects with inherent meaning or existing associations as the priming stimuli (e.g., Kay, Wheeler, Bargh, & Ross 2004; Aarts & Dijksterhuis 2003), our paradigm uses novel arrays of shapes without any inherent meaning or preconditioned associations.

We conducted four studies in which we found effects on cognitive accessibility of uniqueness concepts, preference for uniqueness, and preference for variety seeking. We initially focused on these concepts because of their importance and centrality to consumer behavior. Nevertheless, we believe our findings can be generalized to other concepts, such as friendship and separation in social contexts.

In Study 1, we presented participants (N=66) with either "uniqueness" arrays (e.g., OOOXOO) or "homogeneity" arrays (e.g., OOOOOO). These and subsequent arrays were pretested to ensure that they

conveyed the appropriate concepts. During the priming procedure, participants were instructed to count the number of squares in each stimulus array. The presentation of arrays was combined with a lexical decision task, in which participants were asked to identify as quickly as possible whether a string of letters is a real word or not. As hypothesized, we found that participants shown uniqueness arrays were faster in recognizing "uniqueness" words (e.g., 'unique', 'single') than either "homogeneity" words (e.g., 'similar', 'uniform') or "neutral" words (e.g., 'review', 'thirsty'), indicating a greater accessibility of the uniqueness concept. Importantly, in all studies, careful debriefing revealed that no participants consciously perceived any pattern in the stimulus arrays or believed that exposure to the arrays affected their behavior.

In Study 2, participants (N=37) were presented with either "uniqueness" or "homogeneity" arrays and were asked to count shapes as in Study 1. As compensation, participants were given the opportunity to select one from a set of milk chocolates. As hypothesized, those shown uniqueness arrays were significantly more likely to choose the unique chocolate (a milk Hershey's Kiss wrapped in a different color) than those shown homogeneity arrays.

In Study 3 we tested whether these arrays affect choice when exposure is only incidental (i.e., when participants do not count the shapes) and examined possible mechanisms driving the effect of these arrays. Specifically, participants (N=95) completed a standard lexical decision task, where the words (none of them was related to either uniqueness or homogeneity) were interspersed with supposedly neutral strings (e.g., XXXXOXX or XXXXXX). Participants were told these strings are designed to clear their vision and were asked to simply look at the computer screen at all times, including when these 'neutral' strings were presented. In fact, these strings served as the priming stimuli: half of the participants saw 'uniqueness' strings (e.g., OOXOOOO) and half saw 'homogeneity' strings (e.g., OOOOOOO). In addition, we included the standard time-delay manipulation in order to dissociate the perceptual and motivational accounts for these priming effects (e.g., Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trotschel 2001). After

choosing among unique and common objects (differently colored memo-pads), and completing unrelated tasks, participants completed the Need for Uniqueness (NFU) scale (Snyder & Fromkin 1977).

Overall, those primed with uniqueness arrays were more likely to choose the uniquely colored memo-pad compared to those primed with homogeneity arrays, even when exposure to these arrays was only incidental. Although the time-delay manipulation did not interact with the priming manipulation, we did find an interaction with NFU scores, such that low NFU individuals primed with homogeneity arrays were less likely to choose the unique memo-pad than either high NFU individuals or low NFU individuals primed with uniqueness arrays. This finding shows that subtle activation of uniqueness (through exposure to the uniqueness arrays) and chronic motivation (NFU) are each sufficient to induce uniqueness seeking in choice.

In Study 4, we extended our examination to variety seeking. We presented participants with either “variety” arrays (e.g., OVOXOVXO) or “homogeneity” arrays (see above). As compensation, participants were offered a choice of three chocolates.

As hypothesized, those shown variety arrays were significantly more likely to exhibit variety seeking in their choices (i.e., choose three different types of chocolates) than those shown homogeneity arrays.

Taken together, these studies show that individuals spontaneously extract meaning from ambiguous stimuli and their choice behavior unintentionally follows in kind. These studies reflect two key themes in the study of human perception and behavior: that individuals extract concepts beyond those inherent in the stimuli they encounter and that individuals’ behavior is driven by factors of which they are unaware. That these studies used impoverished stimuli for which individuals had no prior associations illustrates the pervasiveness of these tendencies and suggests that the applicability of these broad principles to consumer behavior processes may be greater than suggested by prior research and theorizing.

For further information contact: Michal Maimaran;  
Graduate School of Business, Stanford University;  
518 Memorial Way, Stanford, CA 94305-5014 ;  
[maimaran@stanford.edu](mailto:maimaran@stanford.edu)

**NOT ALL DIMENSIONS ARE CREATED EQUAL:  
FEATURE DISTRIBUTIONS AFFECT DIMENSIONAL ACCESSIBILITY**

Jesse Itzkowitz; University of Florida  
Chris Janiszewski; University of Florida

**ABSTRACT**

Brand managers seek to differentiate their products from competing products. Historically, this differentiation has been achieved by advertising a product's competitive advantage. This active approach to product differentiation has provided motivation for research on positioning, market structure, and market evolution.

This research investigates a more passive source of product differentiation. As a market grows, additional products enter the market. Each additional product occupies a position (i.e., has a value) on each dimension that defines the current set of products. We propose that the distribution of values on each dimension is a source of information. This distributional information can encourage the consumer to put more or less emphasis on each dimension as a source of product differentiation.

The distributional characteristics of product dimensions can be illustrated using the laptop computer category. When consumers view a set of brands from a similar product category, it is often the case that the brands share many of the same product dimensions (e.g., processing speed), but that the feature values are unique to each brand (e.g., 1.8 Ghz, 2.2 Ghz, 3Ghz). On other shared dimensions, the feature value may be similar between some brands, but not others (e.g., Bluetooth wireless, Wi-Fi wireless). Finally, for some dimensions, a feature value may be common among all of the products in the category (e.g., R/W drive).

Lurie (2004) demonstrated that the distribution of feature values along a dimension impacts information overload, decisional accuracy, and type of processing. However, there has been no research on how the distribution of feature values (across brands) along a shared product dimension affects its accessibility. Accessibility is critical if a product dimension is to be included in decision (Lynch, Marmorstein, and Weigold 1988) and/or a representation.

We begin with the assumption that categorization is inherent in object perception (Goldstone and Barsalou 1998; Murphy 2002). Categorization presents a significant conflict for the perceptual

system. While one goal of categorization is to simplify information, conceptual representations must be accurate and thus contain information that differentiates between individual types. This conflict has been referred to as the problem of cognitive economy (Rosch, Mervis, Grey, Johnson, and Boyles-Braem 1976).

If simplicity is the dominant goal of the perceptual system, then dimensions which allow the entire group of objects to be classed as a whole may be preferentially represented. In structural alignment terms, individuals would first instantiate dimensions consisting of commonalities. Thus, dimensions consisting of common feature values (or types) may gain prominence in the product representation. The results of Schyns and Murphy (1994) and Schyns and Rodet (1997) confirm this expectation. Subjects in both studies preferentially represented common features rather than other stimulus dimensions.

If accuracy is the dominant goal of the perceptual system, then dimensions composed of unique feature values should be prominent in representation. Dimensions consisting of unique features allow differentiation between individual brands within a product category. Moreover, these dimensions contain the most information (Lurie 2004). Pirolli and Card (1999) speculate that individuals tend to match attention to the amount of information present in particular areas of a stimulus. This implies that product dimensions composed of unique features should capture attention to a larger degree than other product dimensions. Indeed, Lurie (2004) finds that the presence of unique features alters time spent viewing other product dimensions.

If simplicity and accuracy goals are equally dominant in the perceptual system, then dimensions composed of features that afford the creation of sub-categories will be most prominent in representation. This describes the "Basic level category" effect (Rosch et al. 1976). Experiments by Fink and Ullman (2005) demonstrate that features predictive of basic-level category membership were recalled most frequently. Similarly, Goldstone (1994) found that dimensions which afforded categorization were prominent in representation.

One explanation for these disparate results lays in the differing task goals between studies. Consumers often view product information with different goals. Whereas some consumers are casually browsing at product information, others may be preparing to purchase an item. These goals may impact which dimensions are more accessible (Hommel, Musseler, Aschersleben, and Prinz 2001; Janiszewski 2007). When information is casually observed, such as in Schyns and Murphy (1994) and Schyns and Rodet (1998), dimensions with common features will be more accessible. However, when consumers must choose, they utilize dimensions that are alignably different (Johnson 1989), possess distinctive features (Payne and Bettman 1992), and allow distinction between specific features (Slovic 1975). Thus, goals and feature distributions may jointly affect the accessibility of product dimensions.

This study tests these propositions experimentally. We find that the distribution of feature values along a product dimension affects the dimension's accessibility. Further, we document the interaction between task goals and feature distributions on dimensional accessibility. When product information is casually browsed, people tend to represent dimensions that describe the product category in general. However, when individuals think about possible purchase, dimensions that differentiate between individual products are more accessible (unique features). We conclude with a discussion of the limitations of our experimental procedure, managerial implications, and possibilities for future research.



## The Effect Of Superstitious Beliefs On Consumer Behavior

Thomas Kramer, Baruch College, The City University of New York  
Lauren Block, Baruch College, The City University of New York

### ABSTRACT

“\$888 to Beijing. Lucky You.” This recent Continental Airlines ad, prominently featuring a number that is perceived to be lucky in Chinese cultures, exemplifies the use of cultural superstitious beliefs in marketing practice. However, individuals’ superstitious beliefs and their impact on consumer behavior have received surprisingly little attention in the marketing literature. This lack of investigation into superstitious beliefs is all the more surprising given its strong impact on the marketplace. For example, between \$800 and \$900 million is lost in business in the United States each Friday the 13<sup>th</sup> because people do not want to go to work or tend to business in general that day. The current paper seeks to address this shortcoming.

Superstitions are beliefs that are inconsistent with the known laws of nature or with what is generally considered rational in a society. Belief in superstition dates back thousands of years and continues to the present (Jahoda 1969; Vyse 1997). Superstitions may be invoked to fend off bad luck, as Michael Jordan did when he changed the number on his uniform to “change his luck” after several inferior performances (USA Today, reported in Darke and Freedman 1997a). Superstitions are also invoked to bring about good luck; for example, deep-sea fishermen in New Guinea often perform elaborate magical rituals to ensure a successful fishing trip (Malinowski 1954).

While superstitions can be found the world over, superstitious beliefs are most often culturally specific. For example, superstitions have a large influence on daily life for the Chinese (Simmons and Schindler 2003; Tsang 2004). In Chinese cultures, the color red and the number 8 are associated with prosperity and good luck; therefore, the Bank of China opened its doors in Hong Kong on 8/8/88 – considered to be the luckiest day of the century (Lip 1992). Colors and numbers (e.g., the number 4 and the color black) are also associated with unlucky consequences (Wiseman and Watt 2004). Conversely, individuals from many Western cultures subscribe to superstitions to a relatively lesser degree (Darke and Freedman 1997b). Examples of common superstitious beliefs in the United States include horseshoes and knocking on wood bringing good luck; and the number 13, walking under a ladder, or breaking a mirror bringing bad luck.

While many superstitions are culturally shared and socially transmitted from generation to generation, others consist of relatively more idiosyncratic beliefs or rituals. For example, an athlete may not change his socks during a tournament, and a job applicant may wear a lucky outfit for a job interview. Each of these superstitious beliefs and behaviors are associated with desired positive outcomes; that is, people expect to do well on a subsequent task.

Superstitious rituals and beliefs often increase in periods of stress or uncertainty (Keinan 2002; Malinowski 1954). For example, Keinan (2002) found that residents living in areas more likely to be exposed to missile attack during the Gulf War were more superstitious than those living in safer zones. Such an increase in proclivity toward superstitious thought has been found in times of economic uncertainty as well, for example during the great depression (Padgett and Jorgenson 1982). The prevailing view is that resorting to superstitions provides a sense of control, or at least explains why control is not possible (Dudley 1998). The consistent finding across studies was that the more salient failure is, the more people use superstitious strategies to explain the failed outcome. However, to date this research has been limited to studies of personal failure. The current research investigates the use of superstitious explanations for non-personal or inanimate object failure, such as product failures.

With this paper, we therefore add to the nascent body of knowledge by examining how superstitious beliefs influence product satisfaction, purchase intentions, and consumers’ risk-taking behavior. We suggest that the superstitious associations that individuals hold concerning an object’s attributes (e.g., color) will influence how well they believe the object itself should perform. For example, since red is a lucky color, Chinese consumers might expect a red rice cooker to perform better than a green one. More generally, superstitious beliefs may be a source of information relied upon in evaluation and satisfaction judgments.

Accordingly, we begin with the impact of superstitious beliefs on consumer satisfaction following product failure by showing that consumers are less (more) satisfied with a product for which they hold positive (negative) superstitious

associations based on its color, the product quantity, or the digits used in its price. We then demonstrate instances when superstitious beliefs cause consumers to make purchase decisions that run counter to economic rationality. That is, we find that Taiwanese consumers are more likely to purchase a product at a higher “lucky” price, are less likely to purchase a product at a lower “unlucky” price, and are more likely to purchase a “lucky” product with fewer units contained in the package (e.g., 8 tennis balls compared to 10). In contrast, U.S. consumers, for whom no such superstitious associations with the number 8 exist, adhere to the more rational choice paradigm.

However, we find that these effects are only observed when superstitious beliefs are allowed to work unconsciously. In these studies, we also show that the effects of superstitious beliefs are not limited to Asian consumers. In particular, participants from the United States make significantly more risk-averse choices when a negative (vs. neutral) superstition is made salient. Lastly, we demonstrate that the effects of superstitious beliefs are greater under conditions of high uncertainty.

For further information, contact Thomas Kramer, Department of Marketing and International Business; Baruch College, The City University of New York; One Bernard Baruch Way, Box 12-240; New York, NY 10010; thomas\_kramer@baruch.cuny.edu.

#### REFERENCES

- Darke, Peter R., and Jonathan L. Freedman (1997a), “Lucky Events and Beliefs in Luck: Paradoxical Effects on Confidence & Risk-Taking,” *Personality and Social Psychology Bulletin*, 23 (4), 378-88.
- (1997b), “The Belief in Good Luck Scale,” *Journal of Research in Personality*, 31, 486-511.
- Dudley, R. Thomas (1998), “The Effect of Superstitious Belief on Performance Following an Unsolvable Problem,” *Personality and Individual Differences*, 26, 1057-1064.
- Jahoda, Gustav (1969), *The Psychology of Superstition*, New York: Penguin.
- Keinan, Giora (2002), “The Effects of Stress and Desire for Control on Superstitious Behavior,” *Personality and Social Psychology Bulletin*, 28 (1), 102-108.
- Lip, Evelyn (1992), *Chinese Numbers: Significance, Symbolism, and Traditions*, Times Books International, Singapore.
- Malinowski, Bronislaw (1954), *Magic, Science, and Religion*, Garden City, NY: Doubleday.
- Padgett, Vernon R., and Dale O. Jorgenson (1982), “Superstition and Economic Threat: Germany 1918-1940,” *Personality and Social Psychology Bulletin*, 8, 44-57.
- Simmons, Lee C., and Robert M. Schindler (2003), “Cultural Superstitions and the Price Endings Used in Chinese Advertising,” *Journal of International Marketing*, 11 (2), 101-111.
- Tsang, Eric W. K. (2004), “Superstition and Decision-Making: Contradiction or Complement?” *Academy of Management Executive*, 18 (4), 92-104.
- Vyse, Stuart A. (1997), *Believing in Magic: The Psychology of Superstition*, New York: Oxford University Press.
- Wiseman, Richard, and Caroline Watt (2004), “Measuring Superstitious Beliefs: Why Lucky Charms Matter,” *Personality and Individual Differences*, 37, 1533-1541.

## The Luxury Of Art: How Luxury Perceptions Of Art Spill Over Onto Consumer Products

Henrik Hagtvedt, University of Georgia  
Vanessa M. Patrick, University of Georgia

### ABSTRACT

#### THE ART INFUSION PHENOMENON

Several theoretical perspectives shed light on how the properties of art may spill over on products, including classical conditioning (Gorn 1982), mere exposure (Zajonc 2000), spontaneous trait transference (Brown and Bassili 2002), contagion (Rozin, Millman, and Nemeroff 1986), and halo effects (Balzer and Sulsky 1992). In line with such perspectives, we propose that visual art may influence consumers' evaluations of the products with which the art is associated, and the type of influence will follow from how art itself is perceived. At a general level, art is associated with a heritage of culture, it has historically represented a special kind of quest for excellence, and it has connotations of luxury and exclusivity (Hoffman 2002; Margolin 1992; Martorella 1996; Tansey and Kleiner 1996). We propose that a product infused with art will take on those connotations, causing more favorable product evaluations and higher monetary valuations. Further, we expect the holistic evaluation of an art-infused product will influence the attribute-based analytic evaluation of the product.

#### STUDY 1: ESTABLISHING THE PHENOMENON

An experiment was conducted, with 106 undergraduates, using a soap dispenser as the stimulus with four experimental conditions (plain vs. decorative non-art image vs. artwork pre-tested to elicit positive affect vs. artwork eliciting negative affect). The art-conditions of differing valence were incorporated to control for an alternative explanation that the content of the artwork could be driving the results rather than the general connotations of art, and the non-art image was included to rule out that the effect was a result of ordinary product embellishment (MacInnis and Price 1987). Consistent with a definition of art as that which is categorized by consumers as such (Bourdieu and Darbel 1997), a pretest was conducted with 99 undergraduate students to select artworks (vs. non-art images) for use as stimuli. All images were equally pretty and decorative, and equally unfamiliar to participants.

Results revealed that across all measures (general product evaluation, monetary valuation, product-specific attributes (e.g. fragrance, cleansing power), and perceptions of luxury) there were no differences between the two art conditions (positive vs. negative)

and none between the non-art conditions (non-art image vs. plain), but the products in the art conditions were rated significantly higher than those in the non-art conditions. Further, full mediation was confirmed by the perception of luxury index of the relationship between the presence of art and all the other dependent variables.

#### STUDY 2: HEDONIC VERSUS UTILITARIAN PRODUCTS

A close alignment with hedonic products may explain why marketing professionals tend to use art to promote hedonic rather than utilitarian products (Hetsroni and Tukachinsky 2005; Hoffman 2002). However, based on the theory of art infusion, if art itself is hedonic, then an art-infused product should be perceived as more hedonic than it would be without art. Further, we would expect that *changes* in this perception will be greater for utilitarian products than for hedonic ones, since the latter are already viewed as hedonic and consequently have less potential for change.

Study 2 was a 2 (art vs. non-art) x 2 (wine vs. soap dispenser) between-subjects experiment in which 108 undergraduate students participated. Results revealed that the utilitarian product (soap dispenser) was "transformed" into a hedonic product by the presence of art. For the other measures, i.e. product evaluation, monetary evaluation, and perceptions of luxury, results revealed the hypothesized main effects and interactions, showing that art had a significant favorable influence, and that the effect of art was greatest for the utilitarian product. Further, mediation was again confirmed by the perceptions of luxury index.

#### STUDY 3: RELEVANCE AND MODIFICATION OF ART

When employing art to promote products, marketers may use the artwork in its original form or modify it to fit their purposes (Hoffman 2002). We assert that a modified artwork is no longer categorized as art, and therefore the positive connotations of luxury associated with art are diminished or lost completely, reducing or eliminating the art infusion effect. Further, when a relevant link is established between the product and the artwork, we would expect an interaction of relevance and modification such that when relevance

is high we would expect polarized responses to modification.

A 3 x 2 between-subjects experiment, with 191 undergraduate participants, manipulated modification of the art (unmodified vs. slightly modified vs. highly modified) and relevance (established via the copy of the ad: relevant vs. irrelevant). A fictitious advertisement, using the Mona Lisa by Leonardo da Vinci, was created for a real product: Prince Spaghetti Sauce.

Results revealed that general evaluations and perceptions of luxury for both product and advertisement were higher for the unmodified artwork, and the expected polarization caused by the relevance was confirmed by the expected interactions. Further, mediation was confirmed by the luxury perceptions for both the ad and the product, indicating that the art infusion effect operates through both the ad and the advertised product.

#### STUDY 4: THE PROCESS MECHANISM

In this study, 67 undergraduate participants were randomly assigned to three conditions (high cognitive load vs. low cognitive load vs. forced elaboration) and reported evaluations based on an ad using the unmodified Mona Lisa. Results revealed that the high cognitive load did not cause diminished evaluations, while the forced elaboration did. Both these results indicate an automatic process.

#### REFERENCES

- Balzer, William K. and Lorne M. Sulsky (1992), "Halo and Performance Appraisal Research: A Critical Examination," *Journal of Applied Psychology*, 77 (6), 975-85.
- Bourdieu, Pierre and Alain Darbel (1997), *The Love of Art: European Art Museums and Their Public*. Oxford: Blackwell.
- Brown, Rick D. and John N. Bassili (2002), "Spontaneous Trait Associations and the Case of the Superstitious Banana," *Journal of Experimental Social Psychology*, 38 (1), 87-92.
- Gorn, Gerald J. (1982), "The Effects of Music In Advertising On Choice Behavior: A Classical Conditioning Approach," *Journal of Marketing*, 46 (1), 94-101.
- Hetsroni, Amir and Riva H. Tukachinsky (2005), "The Use of Fine Art in Advertising: A Survey of Creatives and Content Analysis of Advertisements," *Journal of Current Issues and Research in Advertising*, 27 (1), 93-107.
- Hoffman, Barry (2002), *The Fine Art of Advertising*. New York: Stewart, Tabori and Chang.
- MacInnis, Deborah and Linda Price (1987), "The Role of Imagery in Information Processing: Review and Extensions," *Journal of Consumer Research*, 13 (4), 473-91.
- Margolin, Victor (1992), "Product Appeal and the Aura of Art," in *Objects and Images: Studies in Design and Advertising*, Susann Vihma, Ed. Helsinki: University of Industrial Arts.
- Martorella, Rosanne Ed. (1996), *Art and Business: An International Perspective on Sponsorship*. Westport, CT: Praeger.
- Rozin, P., L. Millman, and C. Nemeroff (1986), "Operation of the Laws of Sympathetic Magic in Disgust and Other Domains," *Journal of Personality and Social Psychology*, 50 (4), 703-12.
- Tansey, R. and F. Kleiner (1996), *Gardner's Art Through the Ages*. Orlando: Harcourt Brace.
- Zajonc, Robert B. (2000), "Feeling and Thinking: Closing the Debate over the Independence of Affect," in *Feeling and Thinking: The Role of Affect in Social Cognition*, J.P. Forgas, Ed. Cambridge: Cambridge University Press.

For further information contact: Henrik Hagtvedt; 132 Brooks Hall; Terry College of Business; University of Georgia; Athens, GA 30602; Phone: (706) 254-6456; Email: hhagtvedt@yahoo.com

## From Small Slice To Big Picture: The Relationship Between Within-Category Variety Perceptions, Local Display Breadth, And Store Variety Inferences

Joseph K. Goodman, The University of Texas at Austin  
Cait Poynor, University of South Carolina

### ABSTRACT

Consumers routinely make inferences about the variety of entire stores, and they use such inferences as grounds for future store choices. Certain cues, such as the size of a display or the presence of a favorite option, influence consumers' perceptions of both overall store variety and within-category variety (commonly called "assortment"; Broniarczyk, McAlister, and Hoyer 1998; Hoch, Bradlow, and Wansink 1999). A stream of work illustrates that store variety inferences are influenced by factors as diverse as schema-display congruency (Morales et al. 2005), assortment structure and symmetry (Hoch et al. 1999, Kahn and Wansink 2004), the availability of particular items in an assortment (Broniarczyk et al. 1998), and relationships between product attributes (Hoch et al. 1999, Van Herpen and Pieters 2002). Despite a wealth of literature focused on store variety inferences, little is known about how these two factors—judgments of assortment and display breadth—impact one another and how they in turn affect judgments of store variety. We investigate the impact of display breadth on perceptions of within-category assortment and judgments of overall store variety.

Across two studies, we find that range effects (Parducci 1968; Yeung and Soman 2005) driven by local display breadth consistently drive perceptions of within-category assortment: When consumers make only one choice from a single display, choosing from a low (high) breadth display—i.e., displays containing very similar items to the focal item—*increases* (decreases) perceived within-category assortment compared to moderate and high breadth displays. These perceptions of greater within-category assortment, in turn, impact perceptions of entire store variety and lead to the counterintuitive result that low (high) breadth displays lead consumers to perceive *less* (more) variety in the store as a whole. We also find that the relationships between perceived within-category assortment and perceived entire store variety change when consumers make multiple, rather than single, purchases.

In the first study we manipulated the display breadth surrounding a focal category (i.e., handsoap)

with five product categories that have high (e.g., hand sanitizer), moderate (e.g., toothpaste), or low (e.g., baseball caps) levels of similarity to the focal category. Participants made a single choice in the focal category in one of the three display breadth conditions. After their choice, participants rated the within-category assortment of the focal category and the variety of the store (order counterbalanced, measures adapted from Broniarczyk et al. 1998). Consistent with the predictions made by research in range effects, the results show that as display breadth (i.e., less similar product categories) adjacent to a focal category increases, consumers' within-category assortment perceptions decrease. In turn, this increase in judgments of within-category assortment leads to an increase in entire-store variety inferences.

The second study replicates these findings and shows that the effect of display breadth on within-category assortment and store variety is moderated by the number of discrete purchases which consumers make. When making several purchases, consumers are more likely to use a holistic impression of the various displays and not make range-effect comparisons. Study 2 manipulated the number of purchases by having participants make either a single choice from one display or three choices from three displays. Specifically, the results show that when making a single purchase, greater display breadth leads to perceptions of lower within-category assortment and lower store variety. However, when consumers make multiple purchases across several displays, greater display breadth no longer drives within-category assortment perceptions, but instead directly drives inferences that a store contains more variety as a whole.

The effect of adjoining display breadth contributes to the assortment and variety literature and can be added to the list of heuristics that influence consumers' perceptions of assortment, store variety, and, ultimately, store choice. The type of product category similarity and further boundaries of these range effects is discussed for future research.

## Process Derived Satisfaction And Outcome Derived Satisfaction – The Role Of Self-Construal

Xiaojing Yang, University of Wisconsin-Milwaukee  
Huifang Mao, University of Central Florida

### ABSTRACT

Consumer satisfaction is one of the most intensively studied topics in consumer research. The dominant conceptual paradigm reflected in the satisfaction literature is based on the cognitive consistency model, in which the confirmation/disconfirmation of preconsumption product standards is the essential determinant of satisfaction (Erevelles and Leavitt 1992; Oliver 1993). Four types of comparison standards—expectations, desires, equity, and experience-based norms—and their relationship with satisfaction are extensively researched in the literature (cf. Fournier and Mick 1999). Other approaches to study consumer satisfaction also exist. For instance, affect-based satisfaction model acknowledges that emotion or affect contributes to consumer satisfaction in addition to the cognitive orientation assumed by consistency models (Fournier and Mick 1999).

The varying antecedents brought forth by the existent models of satisfaction mainly focus on the outcomes of a consumption experience (i.e., product performance or affect resulted from the consumption). We, however, expect that the process of the experience is also an important antecedent that drives satisfaction. Thus an important goal of this paper is to study how, in addition to consumption outcomes, the process through which such outcomes are achieved may influence consumers' overall satisfaction of the entire consumption experience. In addition, the current paper aims to contribute to the literature by examining one important variable in determining the relative weights of outcome and process antecedents in driving overall satisfaction—self-construal.

Two major types of self-construal are well established in the literature (Markus and Kitayama 1991). Independents tend to construe themselves in terms of their own personal traits and attributes, interdependents tend to focus more on how the self is related to other people (Markus and Kitayama 1991).

Interdependent (as compared to independent) consumers are more context-dependent, and consequently their satisfaction is more likely to be derived from the process of the consumption. The two groups, however, are expected to both view the outcome as important and be equally affected by the outcome in their satisfaction judgment.

A 2 (self-construal: independent vs. interdependent) x 2 (process: positive vs. negative) x 2 (outcome: positive vs. negative) full factorial design was employed to examine our theory. Subjects primed with different self-construal levels were told to read a sports-consumption scenario with varying outcomes and processes. The results supported our theory. Specifically, process is an important determinant of satisfaction toward the consumption experience, especially for interdependent (vs. independent) consumers, whereas outcomes drive satisfaction for both independent and interdependent consumers.

For further more information contact: Xiaojing Yang, Lubar School of Business, University of Wisconsin-Milwaukee, P.O. Box 742, Milwaukee, WI 53201. Email: yangxiao@uwm.edu

### REFERENCES

- Erevelles, Sunil and Clark Leavitt (1992), "A Comparison of Current Models of Consumer Satisfaction/Dissatisfaction," *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, 5, 104-114
- Fournier, Susan and David Glen Mick (1999), "Rediscovering Satisfaction," *Journal of Marketing*, 63(4), 5-23
- Markus, Hazel R. and Shinobu Kitayama, (1991), "Culture and the Self: Implications for Cognition, Emotion, and Motivation," *Psychological Review.*, 98 (April), 224-253.
- Oliver, Richard L. (1993), "Cognitive, Affective, and Attribute Bases of the Satisfaction Response," *Journal of Consumer Research*, 20 (3), 451- 466.

## The Effects of Self-Construal Priming on Consumers' Self-Presentational Goals

Ashok K. Lalwani, University of Texas at San Antonio  
Sharon Shavitt, University of Illinois at Urbana-Champaign.

### ABSTRACT

Self-presentational goals shape a broad variety of social judgments and decisions. Indeed, many consumption decisions are made in the service of self-presentation (Belk 1981). Consumers seek to appear more intelligent, skillful, normatively appropriate, and generally more desirable through the strategic presentation of their consumption decisions (e.g., Dahl, Manchanda and Argo 2001; Mick 1996).

The literature contrasts two distinct forms of self-presentation: One in which consumers provide inflated assessments of their skills and abilities, and another in which they downplay their shortcomings in order to appear normatively appropriate. These are referred to, respectively, as self-deceptive enhancement and impression management (e.g., Gur and Sackeim 1979; Paulhus 1984; 1991; 1998; Sackeim and Gur 1979). Self-deceptive enhancement (SDE) refers to the tendency to describe oneself in an inflated yet honestly held manner (Paulhus 1991). SDE is motivated by the desire to see the self as competent and self-reliant (Lalwani, Shavitt, and Johnson 2005). It is a predisposition to see oneself in a positive, overconfident light (Paulhus 1998). On the other hand, impression management (IM) refers to an attempt by respondents to present their self-reported actions in the most positive manner in order to maintain a favorable image (Paulhus 1998; Schlenker and Britt 1999; Shavitt, Lalwani, Zhang, and Torelli), and is closely related to faking and dissimulation (Mick 1996). Concerns about one's social relationships likely give rise to a tendency to present the self in ways designed to harmoniously "fit in" and gain social approval.

Consumers are also known to have multiple "selves" that coexist in memory. Only a subset of these are active in memory at any given time, depending on situational cues that make them accessible (Bargh 2002). In particular, the *independent* and *interdependent* selves have been linked to broad and important differences in social judgments and processes (e.g., Briley and Wyer 2002). The independent self is concerned about establishing its uniqueness, standing out from the group, and being self-reliant, whereas the interdependent self is concerned about maintaining connectedness and harmony with others, as well as saving face (e.g., Markus and Kitayama 1991).

Although both types of selves are present within each of us, they can be differentially activated by a given context (e.g., Brewer and Gardner 1996).

How might one's salient self-construal activate one's self-presentational goals and behaviors? A defining characteristic of the independent self is the construal of the self as being autonomous. Indeed, being able to function independently is a key culturally valued goal associated with this self-construal (Markus & Kitayama, 1991). To successfully achieve such independence, however, one needs to build a view of the self as being skillful and capable of self-reliance. Accordingly, research suggests that an inflated and unrealistically positive view of the self is adaptive to the functioning and goal attainment of the independent self (Taylor, 1989), and is associated with better mental health (Sackeim & Gur, 1979). We contend, therefore, that a key self-presentational goal of the independent self is maintaining and expressing a self-reliant, confident, and skillful self-view. Thus, when the independent self is salient, people will strive to present themselves in such terms.

We expect the interdependent self to be related to a different set of self-presentational goals. A defining characteristic of the interdependent self is the construal of the self as interconnected with others and sharing a common fate with them. To successfully achieve such closely interdependent relations with others, however, one needs to build and convey a view of the self as being socially appropriate and interpersonally sensitive. We argue, therefore, that a key self-presentational goal of the interdependent self is creating and maintaining the impression of a normatively appropriate and sociable self. Thus, when the interdependent self is salient, people will strive to present themselves in such terms.

Our findings provide converging support for these predictions. For instance, when the independent (vs. interdependent) self was made salient, people were more willing to take a hypothetical "test" purportedly measuring "self-reliance" and lesser readiness to take a test purportedly measuring "social-appropriateness," and scored higher on self-deceptive enhancement (SDE) and lower on impression

management (IM), as measured by multiple instruments.

#### REFERENCES

- Bargh, J. A. (2002). Losing consciousness: Automatic influences on consumer judgment, behavior, and motivation. *Journal of Consumer Research*, 29(September), 280-285.
- Belk, R. W. (1981). Determinants of Consumption Cue Utilization in Impression Formation: An Associational Derivation and Experimental Verification. In K. B. Monroe (Ed.), *Advances in Consumer Research* (Vol. 8). Ann Arbor, MI: Association for Consumer Research.
- Brewer, M. B., & Gardner, W. (1996). Who is this "We"? Levels of collective identity and self representations. *Journal of Personality & Social Psychology*, 71(1), 83-93.
- Briley, D. A., & Wyer, R. S., Jr. (2002). The effect of group membership salience on the avoidance of negative outcomes: Implications for social and consumer decisions. *Journal of Consumer Research*, 29(3), 400-415.
- Dahl, D. W., Manchanda, R. V., & Argo, J. J. (2001). Embarrassment in consumer purchase: The roles of social presence and purchase familiarity. *Journal of Consumer Research*, 28(December), 473-481.
- Gur, R. C., & Sackeim, H. A. (1979). Self-deception: A concept in search of a phenomenon. *Journal of Personality and Social Psychology*, 37(2), 147-169.
- Holden, R. R., & Fekken, C. G. (1989). Three common social desirability scales: Friends, acquaintances, or strangers? *Journal of Research in Personality*, 23(2), 180-191.
- Lalwani, A. K., Shavitt, S., & Johnson, T. (2006). What is the relation between cultural orientation and socially desirable responding? *Journal of Personality and Social Psychology*, 90(1), 165-178.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98(2), 224-253.
- Mick, D. G. (1996). Are studies of dark side variables confounded by socially desirable responding? The case of materialism. *Journal of Consumer Research*, 23(September), 106-119.
- Paulhus, D. L. (1984). Two-component models of socially desirable responding. *Journal of Personality and Social Psychology*, 46(3), 598-609.
- Paulhus, D. L. (1991). Measurement and control of response bias. In J. P. Robinson & P. R. Shaver (Eds.), *Measures of personality and social psychological attitudes* (pp. 17-59). San Diego: Academic Press, Inc.
- Paulhus, D. L. (1998). Interpersonal and intrapsychic adaptiveness of trait self-enhancement: A mixed blessing? *Journal of Personality and Social Psychology*, 74(5), 1197-1208.
- Sackeim, H. A., & Gur, R. C. (1979). Self-deception, other-deception, and self-reported psychopathology. *Journal of Consulting and Clinical Psychology*, 47(1), 213-215.
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology*, 4(3), 219-247.
- Schlenker, B. R. (1980). *Impression Management: The self concept, social identity, and, interpersonal relations*. Monterey, CA: Brooks/Cole.
- Schlenker, B. R., & Britt, T. W. (1999). Beneficial impression management: Strategically controlling information to help friends. *Journal of Personality and Social Psychology*, 76(4), 559-573.
- Shavitt, S., Lalwani, A. K., Zhang, J., & Torelli, C. (2006). The Horizontal/Vertical Distinction in Cross-Cultural Consumer Research. *Journal of Consumer Psychology*, 16(4), 325-342.
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103(2), 193-210.



## When Shift Happens: Social Identity Threat And Consumer Preferences

Katherine White, University of Calgary  
Jennifer J. Argo, University of Alberta

### ABSTRACT

People often consume, possess, and use products that are consistent with how they see themselves (e.g., Dolich, 1969; Sirgy, 1982). According to social identity theorists, individuals can have multiple, coexisting group identities (e.g., Brewer, 1991; Stryker and Statham, 1985). Thus, it seems likely that consumers will be motivated to consume in ways that are consistent with divergent social identities, depending on the situation. For example, one can consume in ways that affirm one's ethnic group, one's gender, one's occupation, one's role as a family member, and so on. Indeed, past research has shown that identity salience (i.e., the degree to which one aspect of identity is temporarily activated in memory) can determine which aspect of identity will influence subsequent attitudes and behaviors (e.g., Forehand, Deshpandé and Reed, 2002). The current research expands upon this past research to demonstrate a novel situational factor that influences preferences for products related to the self—identity threat.

Drawing from social identity theory (Tajfel and Turner, 1979; 1986) and its extension, social categorization theory (Turner, 1985), we propose that when one aspect of consumer identity is threatened, consumers will prefer product options that highlight an alternative non-threatened identity. A central tenet of social identity theory is that members of a lower status group (i.e., a group that is threatened in some way) should be particularly motivated to establish a positive identity (Tajfel and Turner, 1978). However, one question is what happens if positive identification with an aspect of social identity is not possible (e.g., the value of the group's social identity is threatened in some way)? According to Tajfel (1974), if possible, the individual will leave the group, but reality constraints may hinder this strategy.

In the current research, we are interested in a particular response to social identity threat—engaging in self-protection through a preference for products that are not associated with a threatened group membership. Researchers find that people often distance their association with groups that fail (Snyder, Lassegard, and Ford, 1986). We propose that a threatened identity might lead to the avoidance of the threatened group identity in a consumer domain leading to more negative evaluations of products associated with a threatened identity.

In study 1 we investigate whether a threat to one aspect of a consumer's identity will lead to a decrease in preferences for a product associated with that identity by having participants read an article that threatened their gender, enhanced their gender, or was neutral with regards to their gender. The dependent variable was a measure of consumer preferences for either intellectual vs. gender-related movies. The results revealed a significant effect of identity status on movie evaluations, indicating that those in the threatened condition demonstrated a more positive preference for the intellectual movies than did those in the control and enhanced conditions.

In study 2, either gender or university was threatened and we measured the degree of preference for either intellectual-related vs. gender-related magazines. We also assessed the moderating role of trait self-esteem. We predicted that those low in self-esteem would be more likely than those high in self-esteem to demonstrate more negative ratings of a product associated with a threatened identity than a product that is associated with an enhanced identity. The results revealed that as anticipated, when gender was threatened, those low in self-esteem had more positive evaluations of the intellectual magazines (relative to gender magazines) than did those high in self-esteem. Also, when university was threatened those low in self-esteem had less positive evaluations of the intellectual magazines than did their high self-esteem counterparts.

In study 3 we examined an additional moderator of the tendency to shift preferences in response to identity threat—credibility of the source of the threat. We predicted that participants who received threatening information from a source high in credibility would be more likely to shift product preferences to avoid the threatened identity than those who received threatening information from a source low in credibility. In this study, the dependent variable was consumer evaluations of brands of soap that were either gender-related or neutral. Surprisingly, the results revealed the opposite of what was predicted: when gender was threatened by a high credibility source, participants actually *preferred* the gender-related option.

Study 4 tested two rival hypotheses for our findings in study 3. The results support the notion that the power that the source of the threat holds is an

important moderating factor. In particular, consumers were more likely to prefer the brand of soap associated with a threatened identity when the threat comes from a high power outgroup. Consumers did not show this tendency in response to a low power outgroup. Thus, it appears that when the source of threat is high in power consumers will reaffirm their association with the threatened group.

Although past research has examined the relationship between the self-concept and consumption, the present research highlights a novel situational factor that influences how the self relates

to consumer evaluations and choice—identity threat. Importantly, this research highlights unique moderators of the tendency to shift preferences in response to identity threat such as trait self-esteem and the credibility of the source of the threat. The implications of the findings are discussed.

For further information contact: Katherine White, Haskayne School of Business, University of Calgary, 2500 University Dr. N.W., Calgary, AB, T2N 1N4, [kate.white@haskayne.ucalgary.ca](mailto:kate.white@haskayne.ucalgary.ca)

## Understanding Product Life After Purchase: Consumer Decisions to Repair, Return, or Replace Durable Goods

Session Chair and Discussant: Susan Broniarczyk, University of Texas

### Are Old Appliances Worth Repairing? The Optimality of Consumer Intuitions on Repair and Replacement

João Assunção, Catholic University, Lisbon  
Robert J. Meyer, University of Pennsylvania

One of the most common of all consumer decisions is whether possessions that are in disrepair are worth fixing. These are difficult decisions to make because the answer depends on considerations rarely in evidence at the time a choice has to be made: the ex-post quality of the repair, the likelihood that additional repairs will be needed in the future, the comparative value of replacement goods (which will also need future repair), and, in many cases, how long one can “make do” with a product whose deterioration is only partial (e.g., an oil leak in a car). Given this uncertainty, repair-versus-replace decisions are often guided by simple heuristics whose normative status is uncertain, such as replace if the cost of repair is more than half that of a new good.

In this paper we investigate consumer decisions to repair versus replace durable goods from a normative and descriptive perspective. We first derive a new normative solution to the problem of how a forward-looking consumer should make repair decisions for a class of product problems where the goal is to maximize the net utility of ownership over a finite time horizon. The particular ownership decisions are those where a consumer purchases a product at some initial time period whose quality is a draw from a distribution—capturing the idea that some new products are “gems” while others are “lemons”. The consumer then begins ownership of the product and in each period receives a utility that corresponds to its initial quality. At each time period there is a probability  $p$  that the product will suffer an accident that will cause its observed utility to drop, and a second-order probability  $q$  that it will suffer “illness” that will increase the odds of accidents. The owner then has the ability to pay to have these two kinds of damages restored to like-new levels. The good does not have a finite life span (one can always repair it).

The normative solution is characterized by separate acquisition-threshold and repair-timing policies: if one buys a product whose quality is less than some critical threshold value one should immediately pay for a replacement good. Once

ownership is accepted, however, one should always pay for repair at first chance up to some finite time from the final horizon. In lay terms, one should be a discriminating shopper and a meticulous preserver.

We then examine how consumers actually solve such problems using data from a dynamic product-ownership simulation. The key finding is that actual repair behaviors departs dramatically from normative prescriptions, with the primary bias being that subjects were too willing to accept ownership of inferior goods but then under-maintain them once ownership is initiated. One interpretation of the data is that subjects’ decisions were guided by two—opposing—heuristics that may have normative relevance in other domains: an aversion for waste, which discouraged immediate disposal of new (albeit inferior) goods, and detachment with increasing age, which discouraged interest in repairing older goods. What is notable about this latter heuristic is that it was observed even when subjects owned goods whose quality could not be matched by any new one on the market.

The paper concludes with a discussion of how these data related to known biases in inter-temporal decision making in other domains. These include hyperbolic discounting—which could explain aversions for immediate replacement—and framing effects, which could explain increasing aversion to repair as products’ age begins to exceed that which is seen as typical for a product category.

### Stricter return policies: The effect of time to return an item on product returns

Narayan Janakiraman, University of Arizona  
Lisa Ordóñez, University of Arizona

Most retail firms are tightening their return policies by shortening the amount of time to return items, due to cost reduction and other reasons. What effect will this reduction in allowed return time have on return decisions? While there has been some recent work (Wood 2001) on the effect of lenient return policies on deliberation time prior to choice; there has been little work on the effect of return policies after choice. Further most previous work on lenient return policies make no distinction between two different factors that are likely to effect leniency of returns: transaction costs involved and time

available to return an item. In this paper we isolate and study the effect of return policy time on returns and further provide evidence that this effect is likely moderated by the degree of transaction cost involved.

Findings from two very different domains of research offers a basic prediction that reducing return policy time is likely to exacerbate propensity to return an item. The first is work on perceived product risk (Campbell and Goldstein 2001) which suggests that perceived risk produces wariness or risk aversion and often leads to a variety of risk handling activities (Bettman 1973; Dowling 1999). If stricter return policies exacerbate perceived risk, then from prior research, one would predict that this would lead to increased propensity to return an item. Second, the research on time pressure suggests that individuals under time pressure are more sensitive to negative feedback and increasingly tend to avoid negative consequences (Wright 1974). If stricter return policies leads to higher perceived time pressure, this would in turn lead to more returns. Taken together they suggest that lesser time will lead to higher returns.

In this paper we further test for and study which of the two mediating hypothesis; perceived product risk or perceived time pressure, drive propensities to return. We further test the notion that if time pressure drives returns, then availability of higher negative information regarding product performance should exacerbate returns. While we predict that lesser time to return will increase product returns, we however think that this effect is likely to be sensitive to the transaction cost involved in making returns. Specifically, we hypothesize that under increasing transaction costs (White 1975) the effect is likely to reverse; that is, stricter return policies that also have higher transaction costs are likely to lead to lower propensities to return an item.

Finally, drawing on evidence from the persuasion knowledge literature (Freistad and Wright 1994), we hypothesize that when transaction costs are high and return policy time is low, it will lead to lower returns but will also lead to more dissatisfaction among consumers who choose to retain the item.

We demonstrate support for our hypotheses using a field study and two experiments. In the field study, we obtain retrospective feedback from actual consumers who considered returning an item recently. Respondents described their purchase in terms of several factors: for example, the nature of the item purchase, cost, the length of the store's return policy, if they decided to return or keep the

item, and their satisfaction with their decision. The study provides preliminary evidence that stricter return policies in terms of lower return time can lead to higher return rates. In two studies, one of which involves a scenario study and the other a simulated game we provide evidence for perceived risk and perceived time pressure as mediators and transaction cost as moderators for the effect of time on returns.

The scenario study is intended to investigate people's intuition regarding store return policy time as well as negative product information and transaction costs. In a 2 (return policy: 7 vs. 90 days) x 2 (# of negative pieces of information: 1 vs. 4 of 8 attributes) x 2 (ease of return: easy vs. difficult) between subject design, participants stated how likely they believed they would be to return a digital camera that did not precisely match prior product requirements. Participants represented the general population in a large southwestern city due to the fact that they were waiting to serve in the city's jury pool. Several other questions were asked to measure satisfaction with the purchase decision and outcome and perceived product risk in addition to product category knowledge and general knowledge and use of store return policy time limits.

The actual return study is intended to monitor behavior when return time limits are varied and when the amount negative "product" information is varied. Student participants were called to participate in an unrelated task and as reward picked a pen from among ten different pens for use. After brief usage of the pen they then had the choice of either returning or keeping the pen. Participants either have a short or long time to return the pen. We show that shorter return time limits creates a sense of time pressure that then leads to increased return rates and heavier weight placed on negative information. Taken together, results from these three studies will help us better understand how return policy time limits affect the mostly unexplored area of post-purchase consumer decision making.

### **Return Policy Leniency and Assortment Attractiveness: An Information Processing Perspective**

Marcus Cunha, Jr, University of Washington  
D. Eric Boyd, James Madison University

A consumer's initial purchase from an assortment is not always the ideal choice, which can lead to an unsatisfactory product experience. As a means of ensuring higher levels of post-purchase satisfaction, retailers often offer consumers the opportunity to return a product for an exchange and/or a refund.

The particular refund policy offered by retailers can vary from more to less restrictive based upon many factors including the time customers have to return a product, whether consumers can return a product for a full or partial refund and whether consumers are charged a restocking fee when returning a product (Heiman, McWilliams & Zilberman 2001). A longer versus shorter time window for returning a product, a partial versus full refund and the charging of a restocking fee each represents ways in which marketers can offer a more restrictive return policy to consumers. Nordstroms, for example, represents a well-known example of a retailer offering a very lenient product return policy to consumers (e.g., “no questions asked”).

Marketers appear to face a trade-off when it comes to return policy leniency and product assortment management. More restrictive return policies create unattractive product assortments by shifting greater purchase risk onto consumers (Van de Poel and Leunis 1999) and potentially signaling a low quality of products in an assortment (Wood 2001). Yet, marketers would prefer to provide more restrictive return policies in order to avoid the costs less restrictive return policies create by enabling consumer retail fraud (Stock, Speh & Shear 2002). Tracy Mullin, President and CEO, National Retail Federation recently captured the dilemma currently facing marketers with respect to product return policies when she stated how, “Retailers don’t want to alienate their loyal customers by making their return policies too strict, but they also need to create policies that discourage return fraud.”

Drawing on research related to perceived risk and the Heuristic-Systematic Model (HSM; Chen & Chaiken 1999) of information processing, we argue that marketers can manage the relationship between return policy restrictiveness and assortment attractiveness such that assortments characterized by more restrictive return policies will still be seen as attractive by consumers. We suggest that the restrictiveness of a return policy determines the type of processing strategy (e.g., heuristic- or systematic-based processing) and consequently the type of assortment-related information consumers’ desire when making assortment evaluations. Based on the argument that the larger (smaller) risk implied by more (less) restrictive policies increases (decreases) systematic processing, we propose that consumers facing more restrictive policies will be more likely to process assortment-related information than consumers facing less restrictive policies, who will be more likely to rely on heuristic cues provided by the retailers (e.g., best seller, best value, etc.). Thus,

matching the type of information provided with the processing activated by the return policy should improve attractiveness of an assortment and ultimately increasing the likelihood to buy from a given retailer.

We test our expectations in two experiments. In Experiment 1, we vary return policy restrictiveness and the information concerning the reliability of a bestsellers’ heuristic cue (i.e., best seller products). In line with our expectations, the results indicate that consumers place greater value on assortments having a reliable heuristic cue when return policy restrictiveness is low, but, the opposite pattern results hold when return policy leniency is more restrictive. Experiment 2 tests the robustness of our model by considering an alternative type of assortment-related information: the number of options in an assortment. The results from Experiment 2 suggest our findings are robust across different types of assortment-related information.

Our experimental results extend the marketing literature from a theoretical and substantive perspective in several ways. Theoretically speaking, we provide the first explicit test of the relationship between return policy leniency and assortment attractiveness. Understanding what determines assortment attractiveness is vitally important if marketers are to earn customer patronage. Prior literature has examined issues considered to be important antecedents to assortment attractiveness such as product quality (Wood 2001) and perceived risk (Van de Poel & Leunis 1999), but, our research is the first attempt to directly demonstrate a link between return policy restrictiveness and consumers’ evaluations of an assortment’s attractiveness. The results demonstrate that, rather than having a main effect on assortment attractiveness, the restrictiveness of an assortment interacts with the type of assortment-related information made available by marketers in determining assortment attractiveness. The paper also adds to research considering the relationship between assortment-related decisions and consumers’ processing strategy. Prior research suggests the processing strategy consumers employ when making assortment evaluations varies depending on the type of evaluation being made by consumers (e.g., Hoch, Bradlow & Wansink 1999). The results from two experiments suggest that the type of processing strategy used by consumers when making assortment evaluations can also vary based on the restrictiveness of an assortment’s return policy. In addition, the experimental findings provide an early glimpse into the important role assortment-related heuristic cues play with respect to

consumers' assortment evaluations. Surprisingly, little research exists on the use of assortment-related heuristic cues despite the widespread practice of providing heuristic cues within retailing.

From a managerial perspective, we suggest that marketers have flexibility in designing restrictive return policies. Contrary to the extant literature, the results presented in the paper suggest that offering restrictive return policies that do not detract from assortment attractiveness is possible. The key issue for retailers that do wish to offer more restrictive return policies is to ensure that information provided by an assortment supports the information processing strategy triggered by the restrictiveness of the return policy characterizing the assortment.

#### REFERENCES

- Chen, Serena & Shelly Chaiken (1999), "The Heuristic-Systematic Model in its Broader Context," in *Dual-Process Theories in Social Psychology*, edited by: Shelly Chaiken and Yaacov Trope, eds., New York, Guilford Press, 73-96.
- Heiman, Amir, Bruce McWilliams & David Zilberman (2001), "Demonstrations and Money-Back Guarantees: Market Mechanisms to Reduce Uncertainty," *Journal of Business Research*, 54 (October), 71-84.
- Hoch, Stephen, Eric T. Bradlow, and Brian Wansink (1999), "The Variety of an Assortment," *Marketing Science*, 18 (Fall), 527-546.
- Stock, James, Thomas Speh and Herbert Shear (2002), "Many Happy (Product) Returns," *Harvard Business Review*, 80 (July), 16-17.
- Van den Poel, Dirk & Joseph Leunis (1999), "Consumer Acceptance of the Internet as a Channel of Distribution," *Journal of Business Research*, 45 (July), 249-256.
- Wood, Stacy L. (2001), "Remote Purchase Environments: The Influence of Return Policy Leniency on Two-Stage Decision Processes," *Journal of Marketing Research*, 38 (May), 157-169.

## Affect and Gambling

Discussant: Baba Shiv, Stanford University

### SESSION RATIONALE

The relationship between affect and gambling is bidirectional. Not only affect influences risk taking, but risky activities can also be pursued in an attempt to “buy” affect. The three papers below address different aspect of affect-gambling interaction. Andrade and Iyer show that participants “pre-commit” to lower bets after anticipated losses (vs. gains). When losses are eventually experienced, participants bet more than they had initially planned. However, on average, no dynamic inconsistencies are perceived after gains. Online measures of feelings during the 15 sec pre-outcome period of each gamble show that people not only bet more than planned after a loss, but also feel anxious (rather than excited) during the gamble. In other words, people seem willing to endure the anxiety (rather than to buy the excitement) in order to get the lost money back. Nelson, Galak, and Vosgerau investigate the potential (mis)matching between forecasting and experiencing excitement. People seem to put a substantial premium on the excitement that results from the outcome uncertainty during sporting live (as opposed to taped) events (Vosgerau, Wertenbroch, & Caarmon, 2006). The question is whether this extra uncertainty actually improves the experience. In other words, are people deriving as much pleasure from uncertain events as they expect to? The authors show that the answers is no. In a sports gambling scenario, the authors show that forecasters tremendously overstated the influence of knowledge of the game outcome. Forecasters seem to be committing an error of Focalism, overstating the hypothesized drop of excitement associated with knowing the game winner. Finally, Mazar and Ariely expand the gambling and potential excitement relationship to purchases and types of discounts. Precisely, the authors wonder under which circumstances a probabilistic discount (i.e., gambling-type) versus a fixed discount might be preferred. Moreover, what would be the reason for choosing a probabilistic discount? Is it the possibility to avoid the pain of paying or can it be attributed to the excitement of the gamble itself? The authors show first that probabilistic discounts have stronger appeal compared to fixed discounts of same expected value. Moreover, the preference for probabilistic discounts seems to result from people willingness to “avoid the pain of paying” rather than to “enjoy the excitement of the gambling”.

The three papers, therefore, seem consistent on the fact that affect and gambling are strongly related to one another. Whereas underestimation of the impact of affect may lead to dynamic inconsistencies (Andrade & Iyer), overestimation of utility of excitement leads to discrepancies between prediction and experience (Leif, Galak, & Vosgerau). Finally, in a purchase/discount scenario, avoiding the negative affect associated with paying seems to play a stronger role than the potential excitement attached to the gambling activity (Mazar & Ariely).

### Dynamic Inconsistencies in Gambling: The Role of Feelings

Eduardo B. Andrade (University of California, Berkeley)

Ganesh Iyer (University of California, Berkeley)

This research shows that when planning bets in a series of sequential fair gambles, participants “pre-commit” to lower bets after anticipated losses (vs. gains). When losses are eventually experienced, participants bet more than they had initially planned. However, on average, no such dynamic inconsistencies are perceived after gains. Online measures of feelings during the 15 sec pre-outcome period of each gamble shows that people not only bet more than planned after a loss, but also feel anxious (rather than excited) during the gamble. In other words, people seem willing to endure the anxiety (rather than to buy the excitement) in order to get the lost money back. Experiment 1 shows the effects above with a series of 3 gambles and a \$2 budget per gamble. Experiment 2 replicates the main results using a 2 gamble scenario and a \$5 budget per gamble. Experiment 3 demonstrates that when participants are asked to correct for the potential impact of post-outcome feelings, dynamic inconsistencies after losses dissipate. The authors discuss the potential role of post-outcome feelings, subjective probabilities, reference points, and the utility of excitement as potential explanations for these asymmetric dynamic inconsistencies in sequential gambling.

**The Unexpected Enjoyment of Expected Events:  
The ill-fated Pursuit of Excitement in Watching  
Televised Sporting Events.**

Leif D. Nelson (NYU)

Jeff Galak (NYU)

Joachim Vosgerau (Carnegie Mellon University)

Sometimes uncertain events are more exciting than their certain alternatives. Consistent with this excitement-seeking drive, when watching sporting events people put a substantial premium on the feeling of uncertainty by experiencing them live (as opposed to taped) or by placing wagers on the outcomes (Vosgerau, Wertenbroch, & Caarmon, 2006). Does all this extra uncertainty actually improve the experience? Recent work suggests that it might not, instead suggesting that the added uncertainty may come at a cost to the enjoyment of the experience (Mandel and Nowlis, 2006). Two studies investigate the influence of prediction and outcome knowledge on the actual experience of watching sports programming. Focalism predicts reliable discrepancies between forecast and experience, and additionally finds strong evidence to suggest that people are unaware of the mixed-emotional experience of watching an exciting game. While viewers might seek uncertainty, eliminating it actually leads to greater enjoyment.

In Study 1, participants watched an exciting overtime period of a prerecorded professional basketball game. Experiencers were in one of three conditions. One group watched the game in a normal fashion (control), another group could bet on the games winner (with a candy bar riding on the outcome), and a third group was told in advance which team would win. Forecasters made predictions about each of these conditions, and consistent with Mandel and Nowlis findings, forecasters thought that people making predictions would enjoy the game more than the control condition, and that the people who knew the outcome would enjoy the game much less. They were partially correct: people who predicted the outcome enjoyed the game more than people in the control condition (contrary to M&Ns findings). On the other hand, forecasters tremendously overstated the influence of knowledge of the game outcome, as knowledge had no negative influence. Forecasters seem to be committing an error of Focalism, overstating the hypothesized drop of excitement associated with knowing the game winner.

Study 2 sought to show that process uncertainty, rather than outcome uncertain was the driver of

enjoyment. The previous study indicated that outcome uncertainty did not reduce enjoyment, so in addition to manipulating the same variable in this study we also manipulated process uncertainty. When watching the same overtime period as in study 1, half of the participants were told which team would win the game (outcome certain) and half were not (outcome uncertain). Furthermore, for about half the participants the audio channel was offset so that the announcers reported on the game play 3 seconds ahead of time (process certain) versus 3 seconds delayed (process uncertain). In accordance with our hypotheses, forecasters thought that they would enjoy watching the game less when either outcome or process was certain. But in fact, experiencers enjoyed watching the game equally whether the outcome was certain or not. For process uncertainty, viewers enjoyed watching the game more when the process was certain than when it was uncertain. So, while viewers think process uncertainty enhances enjoyment, it actually dampens it!

**Probabilistic Discounts: When Retailing and Las Vegas Meet**

Nina Mazar, Massachusetts Institute of Technology

Dan Ariely, Massachusetts Institute of Technology

Imagine that you are at the checkout of your local video store and they offer you one of two discounts: What would you choose?

1. A fixed discount that offers a guaranteed 10% off your purchase OR
2. A probabilistic discount that offers a 10% chance to get your purchase for free and 90% chance to pay the full price

Choices among gambles have been the “fruit fly” of research on decision-making. In the current work we examine gambles in context of purchases and in particular in context of discounts. The questions we examine are: 1) Under what conditions do consumers prefer risky / probabilistic discounts. 2) Under what conditions would consumers spend more money if they were given probabilistic discounts. 3) What is the cause for the attraction of the probabilistic-discount? Is it the possibility to avoid the pain of paying or can it be attributed to the excitement of the gamble itself. 4) Finally, we use this type of data to examine whether consumers think of purchasing more as a gain or as a loss in terms of their risk attitude.

We examine these questions in three experiments. First, in a field experiment we offer customers of a local video store at checkout a choice between a fixed



discount and a probabilistic discount on one video rental with equal expected value. We examine the preference between these two discounts at a 10%, 33%, 50%, 67%, and 90% chance of getting one rental for free and find that in general customers significantly prefer the probabilistic discount over the fixed discount. Next, we designed an online store in which students were able to spend their own money and buy items ranging from \$0.50 (candy) to \$15 (Amazon Gift Certificate). We had three different versions of the store manipulated between subjects, offering a 10% fixed discount, a 10% probabilistic discount, and a choice between these two types of discounts. Our results show that customers in the probabilistic discount store purchased significantly more of the cheaper items but significantly less of the expensive items. Customers shopping in the store that offered both types of discounts showed a pattern of behavior that was somewhere in the middle although they showed a preference for the probabilistic discount.

In a third experiment, we contrast consumers' preference for risky options over sure options in context of purchases (probabilistic vs. fixed discount) with their preferences in context of gambles involving money-prizes or product-prizes. Our results suggest that the attraction for risky options is higher for purchases than for gambles and that this difference is not due to the products themselves but more likely to the act of purchasing. This result suggests that the attraction to the probabilistic discount is significantly driven by the pain of paying and not (only) by the gamble and the excitement of winning something. By bringing probabilities to the marketplace we are able to examine how consumers react to probabilities in settings that they are more used to, and hopefully expand our understanding of decision-making under risk more generally.

## Understanding The Role Of Emotional Ambivalence In Consumption

Colleen C. Bee, University of San Diego  
Robert Madrigal, University of Oregon

### ABSTRACT

Consumers are often presented with multiple and conflicting pieces of information when making a purchase decision. When this information is both congruent and incongruent with consumer desires it seems that mixed emotions would be the likely result. Thus, it makes sense to investigate whether mixed emotions do in fact occur in situations where conflicting information is present and examine the effect of mixed emotions on consumer intentions in the presence of conflicting information.

Information congruency, the degree to which information is consistent or inconsistent with consumer desires, is identified as a key factor in determining the valence of an emotional reaction (Lazarus, 1991; 2001; Roseman, 2001). Congruence occurs when a situation is consistent with personal desires and this appraisal typically elicits a positive emotional response.

In contrast, incongruence leads to negative emotions because it represents a situation in which personal desires are hindered. Although research has addressed the effect of consistent information (i.e., either congruent or incongruent) on discrete emotional responses (e.g. Nyer, 1997; Roseman, 1991; Smith & Ellsworth, 1985), little is known about how information appraised as being both congruent and incongruent affects emotional response. Our assumption is that such a state would result in a mixed emotional response – both positive and negative emotions.

### *Emotional Ambivalence in Marketing*

Emotional ambivalence refers to the co-occurrence of positive and negative emotions. In a study examining how consumers experience mixed emotions in response to advertising appeals, Williams and Aaker (2002) found that ambivalence is more likely among those with a lower propensity to accept duality. Furthermore, these feelings of discomfort mediate the relationship between emotional appeals and attitude toward the ad, but only for people with a lower propensity to accept duality. In contrast, discomfort did not act as a mediator for those with higher propensities to accept duality.

We expect that feelings of emotional ambivalence will mediate the effect of information consistency on summary judgments. In particular, consumers presented with consistent information about product

attributes deemed to be congruent with desires will be more likely to have favorable purchase intentions than consumers presented with conflicting attribute information. Therefore, as consumers move from desirable consistent information to conflicting mixed information (i.e. hereafter referred to as a positive → mixed shift), behavioral intentions favorable to a particular purchase decision are likely to be diminished. The reason for this is because consumers experience greater emotional ambivalence when confronted with mixed information as opposed to desirable consistent information. Thus, emotional ambivalence mediates the direct effect of the positive → mixed shift on behavioral intentions. Mediation is not expected for those exposed to consistent (desirable or undesirable) information.

### Hypotheses

**H1:** Respondents receiving conflicting information will experience significantly greater levels of ambivalence than those receiving consistent information.

**H2:** Feelings of ambivalence will mediate the relationship between information congruency and behavioral intentions for those exposed to conflicting information.

### Methodology

Two experiments were designed to test these hypotheses. Respondents were asked to read fictitious information from Consumer Reports about a resort. In study 1, they were asked to indicate whether they would elect to purchase this vacation. Respondents in study 2 were also presented with information about purchasing a vacation. However, in this study, respondents were told that they had already paid for the vacation but had not yet taken it. They were then presented with new information about the forthcoming trip. This shift in focus is important because consumers are often required to pre-purchase something such as a vacation package that will be consumed at a later date. Of interest here is how exposure to conflicting information after purchase and prior to consumption affects purchase intentions. In each study, participants were randomly presented with 1 of 3 types of information congruency - positive-only (consistent), negative-only (consistent), or mixed (conflicting) information about the resort. The stimuli included a series of webpages containing summary background

information, a purchase scenario, and information congruency stimuli.

#### *Measures*

Two future-oriented emotions were considered: optimism and worry. Emotional ambivalence was measured from both an objective and subjective perspective. The former incorporates the separate ratings of discrete emotions, whereas the latter refers to the overall level of mixed feelings that people have toward a target. Purchase intent included likelihood of purchase delay (Study 1), likelihood of consumption delay (Study 2), likelihood of purchase (Study 1), and likelihood of consumption (Study 2).

#### *Plan of Analysis*

Moving from a purchase option characterized by congruent (desirable) information to one featuring incongruent (undesirable) information (i.e. *positive* → *negative shift*) should increase purchase delay (studies 1 and 2), as well as reduce the likelihood of both purchase (study 1) and consumption (study 2). A similar pattern of effects is expected when the purchase option moves from one dominated by congruent information to one featuring conflicting (both congruent and incongruent) information (i.e., *positive* → *mixed shift*). Tests of mediation were conducted with *positive*→*negative shift* as the independent variable and then separate tests of mediation were conducted with *positive*→*mixed shift* as the independent variable. The mediators tested in the analyses were subjective and objective ambivalence. The dependent variables were the behavioral intentions measures of likelihood of delay (Study 1 & 2), likelihood of purchase (Study 1) and likelihood of consumption (Study 2). Tests of mediation were also conducted separately for each of the mediators and the dependent variables.

#### **Results**

*Test of H1.* In study 1, respondents in the conflicting information condition experienced significantly higher levels of ambivalence compared to those in the consistent information conditions. Similar results were found in study 2, where the conflicting information condition resulted in significantly higher levels of ambivalence than the consistent information conditions.

*Test of H2.* Overall, the regression results and Sobel tests support H2. Emotional ambivalence mediated the effect of information congruency on behavioral intentions for those exposed to conflicting information (*positive* → *mixed shift*). Ambivalence did not mediate the effect of information congruency for those exposed to consistent information (*positive* → *negative shift*).

#### **General Discussion**

A purchase option characterized by conflicting as opposed to consistent information leads to heightened levels of emotional ambivalence. In addition, emotional ambivalence was found to mediate the direct effects on purchase intentions as the purchase option moves from a congruent to mixed information state. The mediation analyses were intended to shed light on how information congruency affects feelings of ambivalence and how this in turn impacts behavioral intentions. This is the first study to explicitly examine the effect of ambivalence on intentions and extends previous work (Williams & Aaker, 2002) on mixed emotional states.

For further information contact: Colleen C. Bee;  
Assistant Professor of Marketing; University of San Diego; School of Business Administration; 5998 Alcala Park; San Diego, CA 92110; (619)260-7629; cbee@sandiego.edu

## Don't Get Mad, Get Even: On Consumers' Revenge

Ayelet Gneezy, University of Chicago GSB  
Dan Ariely, MIT

### ABSTRACT

The relationships between companies and consumers are complex symbiotic ones, where some of the parties' goals are common, while others are in conflict with each other. In terms of joint goals, companies strive to design, build, and offer products that consumers want and desire -- perfectly matching their needs. This type of symbiotic relationship is what Ecologists call mutualism -- where both parties benefit. However, and at the same time, both companies and consumers also have competing goals, which by the same token can be characterized as parasitism. From this perspective, consumers want to get the best deal they can without any concern to the companies' short or long-term profits, while companies aim at maximizing their own profits, even when this is done at the expense of consumers' best interest and their welfare. A few examples for such actions are misleading advertising, hidden fees of credit card loans, 'fine prints' of terms and conditions on agreements and promotional offers, requirements to sign long-term contracts for cellular services, artificially increasing switching costs for software products, etc.

The tendency for such questionable practices has not passed consumers by, as is evident by findings on consumers' suspicion and distrust. From a theoretical perspective, Friestad and Wright (1994) present the Persuasion Knowledge Model according to which consumers constantly learn, and update their knowledge, regarding marketers' motives, strategies and goals. The Persuasion Knowledge Model gained a considerable empirical support (e.g., Campbell and Kirmani, 2000; Darke and Dahl, 2003; Gupta & Cooper, 1992; Szykman et al., 2004; Kirmani, 1997; Koslow, 2000; Koslow and Beltramini, 2002).

In the current work we attempt to better understand consumers' revenge. In particular, while it is clear that consumers who have been negatively affected by misleading actions will be tough to convince to change the way they view and interpret the world around them (e.g., Gupta and Cooper, 1992; Friestad and Wright, 1994; Darke and Dahl, 2003; Gneezy and Ariely, 2005), we ask whether they might also be willing to take direct actions to "correct injustice."

In three field experiments we expose some

individuals to the behavior of an annoying experimenter, give them an opportunity to take revenge, and measure the amount of consumers' revenge.

All studies were conducted using the following method. A research assistant approached individuals who were sitting alone at a coffee shop and asked them to complete a 5 minutes task in return for \$5. The task participants had to complete was finding as many adjacent pairs of the letter "S" in a set of 10 pages full of random letters. Once the 5 minutes were over, the research assistant handed the participant a receipt (for \$5) to fill and sign, and their payment, in single dollar bills. At the same time, the research assistant told the participant: "Here are your \$5, please count the money and sign the receipt. Leave it on your table and I will collect it later" and left to start another participant. However, instead of giving participants \$5 we gave them more (either \$6, \$7, or \$9), and measured what percentage actually returned the excess cash.

In all experiments we manipulated the level of annoyance. In the high annoyance condition, as soon as the research assistant started describing the task, he picked up his cell phone, as if he was answering a call, and talked for about 10-15 seconds with an imaginary friend about their plans for that night (the research assistant was an acting student that we hired in order to assure high level of consistency across "performances"). Once the call ended the research assistant immediately continued with the instructions with no reference to the call. The low annoyance level did not contain this component. In addition, each experiment manipulated different additional factors aimed at testing how annoyance interacts with financial incentives (Experiment 1), whether an apology can moderate people's revenge (Experiment 2), and whether the role of the offender (agent versus principal) affects their decision to revenge (Experiment 3).

Our data shows that very little (a phone call) is needed to make consumers annoyed, to the extent that they choose to behave in a dishonest manner, and specifically that annoyed consumers choose not to return money they have erroneously received. We also learned that participants' dishonest behavior is not driven by the potential gain it entails; increasing the size of gain (from \$1 to \$2) did not increase the

percentage of participants that chose to keep the money, instead of returning it. Our data further shows that an apology is highly effective in mitigating consumers' retaliation toward the annoying experimenter, but at the same time they are indifferent to the agent-principal distinction, and in particular keep the excess cash in regardless of the annoying experimenter's role.

The significance of these results to marketers is

obvious. Future research will look at the effect that the type of action (omission versus commission) has on people's decision to revenge, the relation between the size of offense and that of the retaliating act, and will also explore the possible existence of spillover effects.

### Choosing Targets In Surrogate Boycotts

George Balabanis, City University of London, UK  
Violetta Winkworth, City University of London, UK  
Constantine Katsikeas, Leeds University, UK  
Vincent Wayne Mitchell, City University of London, UK

#### ABSTRACT

Surrogate boycotts are becoming increasingly popular in the recent years as a way to change the policies of governments and other national or international organizations. "Surrogate" boycotts are a special type of boycotts in which the boycotters attack the offending party through an indirect target. In this type of boycotts, targets are usually a large number of companies with different degrees of association to the offending party. Consumers that have decided to participate in a surrogate boycott may choose to equally boycott all the targeted companies in the list or more realistically to choose their own targets. On the basis of the above the paper tries to answer the following questions: What is the effect of a third party's egregious action on the perceptions of a boycotting target's conduct and boycott likelihood? What is the impact of environmental concern and environmental activism on boycotting? How strong are the effects of product substitutability and product preferences on boycotting? What is the role of outcome expectations on boycotting? Are these effects uniform for all boycott targets or some targets will be less vulnerable than others? By drawing on existing boycott studies, social cognitive theory; as well as consumer and ecological activism theories the paper develops a conceptual model that attempts to provide answers to the above questions in an integrative manner. First, the paper examines consumer likelihood to boycott targeted firms in the presence of both high and low boycott cost conditions. Second, it tracks the sequence of effects from the perceived severity of the original offending action to the perceived culpability of the boycott target and boycott likelihood. Third, outcome expectations and preferences for the products of the targeted firms are also modeled to influence boycott likelihood. Finally, consumer concern for the environment and environmental activism are included in the model as moderators of the relationship between boycott costs (i.e., substitutability and product preferences) and likelihood to boycott.

The proposed framework was empirically tested in a real ongoing boycott on a sample of British consumers. The choice of the boycott issue was based on the results of an extensive market research survey by the Global Market Insight agency that involved

more than 15,000 people. This study suggested that the most important issue for triggering boycotts is related to global warming and the control of the carbon dioxide emissions as agreed in the Kyoto protocol. The boycott call selected was a UK Non Governmental Organization that was initiated as a result of a country's refusal to sign the Kyoto Protocol on global warming. The campaign was to boycott the biggest donors to that country's governing party. The stated objectives of the boycott are to make donors: (1) publicly call on the leader of that country to support the Kyoto protocol, and (2) cease all political funding contributions to the governing party of that country until he does so. For model testing purposes two companies with low and high levels of substitutability were selected by a panel of experts from the boycott organizers list. The proposed framework was empirically tested through structural equation modeling approach.

The study provided support for almost all the postulated relationships. Specifically, it confirmed that those who donated to the offending country's ruling party were perceived as guilty of egregious actions because of that country's and its ruler's refusal to sign the Kyoto protocols. Perceived egregiousness was shown to be the most powerful influence on consumers' decision to participate in a boycott. However, the study found that this effect was not uniform across all products and that consumers do choose their own targets. First, it was shown that the relationship of perceived egregiousness to boycott likelihood was greater for easy-to-substitute products. Second, the effect of product preferences to boycott likelihood was slightly weaker for products that are difficult to substitute. Third, the positive effect of perceived egregiousness on likelihood to boycott was lower than the negative effect of product preference on likelihood to boycott the difficult-to-substitute product. The opposite was true for the products that are easy to substitute. Evidently, the suggestion that cost-benefit motivations outweigh perceived egregiousness as a motivator for boycott participation is more likely to be true for products that are difficult to substitute and where consumer preference is high. In these types of products, the effects of consumer preference can override the adverse influences of perceived egregiousness. We can conclude that companies can

immunize themselves from boycott threats by raising the switching costs, if that is possible for their products. Overall our model provided good rates of prediction; however, future research could identify additional conditions under which the derived culpability of target firms may be excused, as well as factors that can influence consumers' cost-benefit calculus.

For further information contact: George Balabanis, Professor of Marketing, Faculty of Management Cass Business School, City University, 106 Bunhill Row, London EC1Y 8TZ, UK, tel +44(0)207-040-0226, Fax: +44(0)207-040-8328 or +44(0)871 2517648 email: [g.balabanis@city.ac.uk](mailto:g.balabanis@city.ac.uk)

## Consumer Response To Spikes In Gasoline Prices: The Role Of Mental Accounting

John Godek, University of Oregon  
Kyle B. Murray, University of Western Ontario

### ABSTRACT

Sharp increases in gasoline prices provide regular material for front page headlines. Throughout North America, consumers are described as being both angry and panicked as prices spike before long weekends or in response to global events. Higher gas prices are believed to be an important cause of substantial changes in buying patterns and lifestyles. During the summer months, when price spikes seem to be a more regular occurrence, politicians frequently appear on radio and television asking consumers not to panic and promising action.

We propose that how gasoline price increases are framed influences consumers' choices due to a shifting in the mental accounts that consumers are using, and this in turn leads to the extreme responses that are commonly reported. Unlike many other products, gasoline is used in a multitude of situations, from commuting to work, to driving on vacation, to going out for entertainment, to shopping for necessities and luxuries. Thus while an increase in gasoline prices might from one perspective appear relatively small, the impact it has can be very far reaching into the life of the consumer, as automobile transportation plays a critical role in many other purchase and consumption situations. Thus for any one decision, consumers' may appear to be overreacting as they adjust their behavior to reflect a generally higher cost of living that they believe will result from the price increase. This perspective also implies that such overreactions will disappear when the consumer focuses on the effect of the price increase on a single budget item, such as a summer vacation, rather than on their general overall spending. In addition, if the price change is framed as temporary, the probability of behavior change should be reduced.

The results of three studies we conducted suggest that by default people process spikes in the price of gasoline as permanent increases in the overall cost of living. We also find that changes in behavior as a result of price spikes can be minimized when the change is framed within the context of a specific expenditure (e.g., a summer holiday) or within the broader context of the effect of the change on overall lifestyle and spending. All three studies were between-subject designs based on the following scenario, which manipulated the presentation of the price change to be either: 1) a per gallon price change of \$0.97; or 2) a per trip price change of \$50.

Imagine that you are planning a trip from Eugene to San Francisco (approximately 500 miles each way) in a couple weeks to visit friends and family. A couple days before you are actually going to depart for San Francisco, gas prices jump up {from an average of \$2.63 a gallon to an average of nearly \$3.60 a gallon} {and increase the cost of your trip around \$25 each way}. You read in the newspaper that this sudden rise in gas prices is due to problems with oil production in the hurricane ravaged Southeastern U.S., combined with instability in Iraq and the rest of the Middle East.

After reading the scenario participants were asked to respond, on a 9-point scale (1 = Not Very Likely to 9 = Very Likely), to the following: "If you were to encounter the previously described situation, how likely would you be to cancel the trip?" The first study was completed by 56 undergraduate students. In the price per trip (PPT) condition, participants were unlikely to cancel the trip, with a mean response of 1.79. In the price per gallon (PPG) condition the mean response was significantly higher ( $M = 3.429$ ,  $F_{54} = 12.79$ ,  $p < .001$ ), indicating that people are much more likely to change their behavior when the price spike is given with a per unit frame (i.e., not in the context of a specific expenditure).

The second study was a 2 (PPT vs. PPG) by 2 (price change was described as either temporary or permanent) between participants design. This study was completed by 151 participants sampled from same population as Study 1. We found a significant interaction ( $F_{147} = 8.556$ ,  $p = .004$ ), such that the permanent condition replicated the results from Study 1 (where no information about the permanence of the price spike was given): PPT mean = 2.23; PPG mean = 3.86 (this difference is significant:  $F_{76} = 15.361$ ,  $p < .001$ ). However, when the spike was explicitly temporary we did not find any effect of the framing manipulation (PPT mean = 2.69, PPG mean = 2.65;  $F_{71} = .014$ ,  $p = .908$ ).

The third study was a 2 (PPT vs. PPG) by 2 (no instructions vs. general spending instructions) between-subjects design, completed by 157 participants sampled from the same population as the previous studies. In the no instructions condition the procedure was identical to Study 1. In the overall general spending instructions condition participants were also told: "When answering the following questions, please consider what this change in gas



prices will mean for other activities that you like to participate in as well as your overall lifestyle and spending.” A significant interaction was revealed ( $F_{153} = 5.204$ ,  $p = .024$ ), such that without instructions there was a significant difference between PPG ( $M=4.00$ ) and PPT ( $M=2.00$ ) ( $F_{75} = 23.451$ ,  $p < .001$ ); however, when given the “big picture” instructions the difference between the PPG ( $M=3.33$ ) and PPT ( $M=2.66$ ) conditions was not significant ( $F_{78} = 2.466$ ,  $p = .120$ ).

In total, these results suggest that when faced with a gas price spike reported as PPG people tend to default to thinking of the change as permanent, without placing it in the context of specific expenditures or considering the impact on overall spending. Consequently, people report the largest

changes in intended behavior when price spikes are reported per unit. Our findings are consistent with media reports of “panic” that follow spikes in the price of gasoline. These results indicate that the negative impact of such price changes on overall consumer confidence may be, in part, an artifact of the way in which the information is framed.

For further information contact: John Godek, Assistant Professor of Marketing, Charles H. Lundquist College of Business, University of Oregon, Eugene, OR, USA 97403, [jgodek@uoregon.edu](mailto:jgodek@uoregon.edu); or Kyle B. Murray, Assistant Professor of Marketing, Richard Ivey School of Business, University of Western Ontario, London, ON, Canada N6A 3K, [kmurray@ivey.uwo.ca](mailto:kmurray@ivey.uwo.ca).

## Symbolic Money Meanings: Conceptualization And Measurement

Gregory M. Rose, University of Washington Tacoma  
Linda M. Foley, University of Akron

### ABSTRACT

This paper develops a scale to examine consumer attitudes toward money. Attitudes toward money represent a fundamental issue in marketing that potentially influence a wide variety of consumer behaviors. Money is a source of prestige, longing, and anxiety. Its attainment, preservation, and use can serve as a means to an end, a goal in and of itself, a reward for achievement, or a marker of status. Money attitudes are pervasive and potentially impact a large number of behaviors in a consumer society. Previous research examining money attitudes, however, conducted primarily in psychology, has failed to produce a theoretically driven stable set of dimensions that reliably and validly measure money attitudes.

The purpose of this study is to develop a scale that measures consumer attitudes toward money. Several studies were conducted to conceptually develop, empirically refine, and validate our measures. A comprehensive literature review and depth interviews were conducted to identify specific, measurable, and conceptually valid dimensions for further analysis and to generate a pool of items. Item reduction was initially accomplished through an examination of content validity by a panel of expert judges and by examining the item-to-total correlations and exploratory factor analysis results from two student samples (Studies 1 and 2).

After establishing the specific items and dimensions in our scale, further evidence of the reliability, factor structure, and validity of our measures was provided in the remaining five studies. These studies move from an assessment of the internal consistency and temporal stability of our scale to an analysis of its nomological and construct validity by placing it within a network of constructs and assessing its performance among matched and known group samples. Study three utilized

confirmatory factor analysis to examine the reliability, dimensional structure, and discriminant validity of our data among non-student adults. Study four assessed the temporal stability of our measures among undergraduate students through test-retest reliability. Data obtained in studies 3 and 4 was also used to assess the nomological validity of our scale by examining the expected relationships between our measures and several existing consumer behavior scales. Finally, studies five and six examined convergent validity. Matched responses were examined from married couples in study 5 and known group differences were assessed in study 6 by comparing the responses of undergraduate students and non-student adults (obtained in studies 2 and 3) to members of the Yahoo! frugal folks and frugal living club. These procedures provide a relatively comprehensive assessment of the reliability, dimensional structure, and validity of our measures.

Five dimensions were found. Achievement and status, respectively, examine the extent that individuals perceive money as a marker of accomplishment or prestige. Security examines the extent that individuals see money as a means of protection from an uncertain future, while worry and evil examine the extent that a person feels anxious about money or believes that money corrupts. These dimensions are theoretically driven and embedded within the context of consumer behavior and marketing.

For additional information, please contact Gregory M. Rose Associate Professor of Marketing, Milgard School of Business, University of Washington, Box 358420, 1900 Commerce Street, Tacoma, WA 98402-3100. Phone: (253) 692-5687. email: [rosegm@u.washington.edu](mailto:rosegm@u.washington.edu). This research was supported in part by a summer research grant from the Hearin Institute at the University of Mississippi.

**Trouble With The Gamble As Decision Metaphor (Or How An Air Purifier Is Not Like \$300)**

A. Peter McGraw, University of Colorado, Boulder  
Eldar Shafir, Princeton University  
Alexander Todorov, Princeton University

**ABSTRACT**

Most risky decisions that people face in life do not involve the prospects of winning or losing money, yet decision theorists consistently rely on monetary gambles to study judgment and choice. We caution that gambles with monetary outcomes do not represent most real-world choices because monetary gambles are valued differently than gambles with non-monetary outcomes.

When presented a gamble that includes monetary outcomes, people perceive numeric inputs of probability and dollar amount that can be multiplied to arrive at a numeric notion of value. People assess value in a calculative way. When presented a gamble with non-monetary outcomes, people perceive an outcome that is not numeric and cannot readily be multiplied by probability. People rely instead on feelings to assess value. Valuations of non-monetary outcomes do not get discounted or augmented by probability in a fashion expected from choice models rooted in microeconomic theory. Hence, non-monetary gambles will be less sensitive to probability information than monetary gambles of equal probability.

We draw on a distinction between assessing value by calculation (determining preference on the basis of some algorithm that takes into account the nature of the stimulus and its scope) or by feeling (determining preference by one's feeling towards the stimulus; Hsee & Rottenstreich, 2004). Hsee and Rottenstreich provide multiple instances in which people are more sensitive to the magnitude of a stimulus when they engage in a calculative rather than a non-calculative valuation process. We show how valuation by feelings decreases sensitivity to probability information whereas valuation by calculation increases probability sensitivity. When people assess the value of a gamble, the insensitivity for non-monetary gambles can lead to preference reversals when compared to monetary gambles, where the non-monetary outcome is more preferred at low probability but less preferred at high probability. The crossover in preferences as probabilities change from low to high occurs because willingness-to-pay judgments of non-monetary gambles are more regressive than willingness-to-pay judgments of monetary gambles. Thus, when monetary and non-monetary outcomes are about the same in value,

willingness-to-pay judgments of non-monetary gambles, regardless of the probability of the outcome, will fall between the more extreme judgments for monetary gambles, creating a crossover pattern.

Other work by Rottenstreich and Hsee (2001) offers an alternative explanation to our proposal. The authors conjecture that affect-rich (i.e., emotional) gamble outcomes lead to a magnification of people's tendency to systematically overweight small probabilities and underweight large probabilities (Kahneman & Tversky, 1979; Tversky & Kahneman, 1992). They deem monetary outcomes affect-poor while non-monetary outcomes (e.g., a kiss from a movie star) are deemed affect-rich. For affect-rich positive outcomes an additional overweighting of low probability results from some hope of receiving the outcome, while additional underweighting of high probability results from fear of not receiving the outcome. A similar underweighting and overweighting of probabilities due to hope and fear is posited for gambles with negative outcomes. The authors show as evidence, for example, that people are willing to pay more money to avoid a 1% chance of receiving a shock as part of an experiment (affect-rich stimulus) than to avoid a 1% chance of losing \$20 (affect-poor stimulus). However, at 99% probability judgments are reversed; people are willing to pay more money to avoid a chance to lose \$20 than they are willing to pay to avoid the same chance to experience the shock. The crossover is the same pattern predicted by our account, but it is important to note that our prediction does not rely on whether the monetary outcome or non-monetary outcome is more emotional. We predict that probability insensitivity occurs for non-arousing, run-of-the-mill consumer products like a desk lamp or an air purifier just as it does for more emotional items like flat screen televisions or roses; processing mode (calculation or feeling) is not due to affect richness per se but rather to the numeric nature of the gamble.

Study 1 was conducted in two parts. Participants were asked to "price" various non-monetary outcomes they could receive (e.g., a flat screen television, air purifier). They were later asked their willingness-to-pay to play low (1%) or high probability (99%) gambles to receive those outcomes. Respondents also judged willingness-to-pay for low or high probability chances to receive the median

values from the pricing task. Judgments were more insensitive to probability for non-monetary gambles, and the regressive nature of the willingness-to-pay judgments indicated a preference reversal as probability moved from low to high. Moreover, the reversal persisted for non-monetary outcomes that were less affectively rich than the monetary outcomes.

In study 2 we again presented participants either low (1%) or high probability (99%) chances to win monetary and non-monetary outcomes, and we asked respondents to judge their willingness-to-pay to play the gambles. Hsee and Rottenstreich (2004) found that people's tendency to neglect magnitude information persisted even when they were told the dollar value of the item so we matched non-monetary outcomes to monetary outcomes by including the monetary outcome's dollar amount with the non-monetary outcome's description. Again, the crossover pattern was present, even for those non-monetary outcomes judged by a separate group of respondents to be emotionally less appealing than its paired monetary amount.

Study 3 replicated our finding for a negative outcome (washing dishes vs. losing \$50) using less extreme probabilities (5% and 95%). We also showed how drawing attention to likelihood information increases sensitivity to probabilities for non-monetary gambles but not non-monetary gambles. We found the preference reversal when probability information was presented between-subjects but not when

probability information was presented within-subjects.

There is certainly value in using a simple, controllable, and objective stimulus like the gamble to study choice. Monetary gambles are particularly useful to the development of mathematical models of choice. Furthermore, choices involving gambles have shed light on important psychological processes such as loss aversion (Kahneman and Tversky, 1979). Our findings, however, are a cautionary note about the conclusions that can be drawn from responses to monetary gambles because the relationship between probability and money is unlike the relationship between probability and most other things.

#### REFERENCES

- Hsee, C. K., & Rottenstreich (2004). Music, Pandas and Muggers: On the Affective Psychology of Value. *Journal of Experimental Psychology: General*, 133, 23-30.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 263-291.
- Rottenstreich, Y. & Hsee, C. K. (2001). Money, kisses, and electric shocks: An affective psychology of risk. *Psychological Science*, 12, 185-190.
- Tversky, A. & Kahneman, D. (1992). Advances in prospect theory: cumulative representation of uncertainty. *Journal of Risk and Uncertainty*, 5, 297-323.

## The Effect of Context and Real-time Evaluations on Retrospective Judgments of Hedonic Experiences

Anastasiya Pocheptsova, Yale School of Management  
Nathan Novemsky, Yale School of Management

### ABSTRACT

Much research has documented the pervasive influence of incidental situational factors on choice and judgment. Despite the wealth of research on the effect of context on immediate evaluations, less is known about the role context plays in retrospective judgments after the context is removed. Since a multitude of consumer choices rely on judgments of past experiences, it is important to understand how contextual effects influence retrospective judgments. Therefore, the current research examines whether the biasing effect of context will remain in retrospective judgments.

We start our examination of the effect of real-time contexts on retrospective judgments by looking at the effect of mood. Mood has been identified as an important situational factor that influences real-time judgments. In the pioneering work in this area, Isen et al. (1978) have found that people who were induced into a positive mood by a free gift gave higher evaluation of products that were entirely unrelated to the gift. Consistent with this finding the affect-as-information hypothesis proposes that mood can serve as a source of information about the object (Schwarz & Clore 1983, 2006). This theory suggests that when evaluating an object individuals ask themselves: "How do I feel about it?" Since this question probes current feelings, any influence on momentary affect can influence judgments. For example, Schwarz and Clore (1983) have found that on a sunny day people (in a good mood) gave higher ratings of life satisfaction than people on a rainy day (in a bad mood). Apparently, mood produced by the weather is incorporated into judgments of overall well-being.

Despite the wealth of evidence in support of the important role of mood in real-time evaluations, previous research has found that internal states, such as mood, are unlikely to be present in the memory of an experience. We propose that the key factor that would determine the incorporation of mood into the retrospective judgment is real-time evaluation. Once a context-dependent real-time evaluation is made, the influence of the context is recorded as part of the memory of the experience. Since overall evaluations are more durable than the facts on which they were formed (Alba et al 1991), people are more likely to rely on this previously formed judgment rather than retrieving specific evidence from memory when making a new judgment (Linge & Ostrom, 1979,

Hastie & Park, 1986). Hence, when asked to make a retrospective judgment and a memory of a previous judgment of that experience exists, one would retrieve the stored (situationally influenced) evaluation of the object. This would result in a retrospective judgment that incorporates the situational influences that were present during the experience.

Social psychology research has shown that in many instances people make spontaneous judgments, such as trait & causal inferences (Hastie & Park 1986, Weiner 1985), however there are also many situations when they don't. Novemsky and colleagues (Novemsky & Ratner 2003, Nunes & Novemsky 2005) in a series of studies reported that people did not make spontaneous hedonic evaluations about a variety of objects whose value was primarily hedonic. Hence, unless specifically prompted to make an immediate evaluation, consumers are unlikely to store a specific hedonic evaluation of their current experience. When making a retrospective judgment, in the absence of an evaluation of the experience, one has to rely on retrieved memory of experience. In these circumstances reconstructive memory processes are unlikely to incorporate incidental affect. Therefore, we propose that when an evaluative judgment did not occur in real time, one is likely to recall a "context free" memory of an experience.

In a series of studies we find that mood has an influence on retrospective judgments when participants evaluate target stimuli in real-time. However, the assimilating effect of mood dissipated in the absence of such evaluation. We also explore the correction processes that consumers use when recognizing the influence of situational factors on their retrospective judgments. We find correction occurs even under conditions where consumers do not hold biased memories of an experience. This leads to context-dependent preferences for the consumers who (prior to correction) held context-free memories of the experience.

Further, we explore the role of the naïve theories in this correction process. We find that consumers believe that the direction of mood induced bias is valence dependent and sometimes qualitatively different from observed real-time effects. Since these theories drive correction processes, the corrections

often bear little resemblance to the real-time effects that are attempting to correct.

In conclusion, this line of research examines when the biasing effect of situational factors, so prevalent in immediate judgments, will remain after the situation has changed. Considering the fact that context can have both negative and positive effects on product evaluation and it is frequently not under the control of marketers, knowing how to include/exclude such context from consumers' evaluations has significant marketing implications.

#### REFERENCES

- Alba J, Hutchinson W, Lynch J. 1991. Memory and decision making. In Robertson TS, Kassarian HH, eds. 1991. *Handbook of Consumer Behavior*. Englewood , pp.1-49.
- Hastie, R. & Park, B. (1986). The relationship between memory and judgment depends on whether the judgment task is memory-based or on-line, *Psychological Review*, 93(3), 258-268
- Isen, A. M., Shalcker, T. E., Clark, M. S., & Karp, L. (1978). Affect, accessibility of material in memory, and behavior: A cognitive loop? *Journal of Personality and Social Psychology*, 36,1-12.
- Lingle, J. H., & Ostrom, T. M. (1979). Retrieval selectivity in memory-based impression judgments. *Journal of Personality and Social Psychology*, 37, 180-194.
- Novemsky, N. & Ratner, R.K. (2003). The time course and impact of consumer's erroneous beliefs about hedonic contrast effects. *Journal of Consumer Research*, 29, 507-516
- Nunes, J.C. & Novemsky, N. (2005). When experience does not matter: On the non-impact of real-time hedonic experiences. *Working Paper. Yale School of Management*.
- Schwarz, N., & Clore, G.L. (1983). Mood, misattribution and judgments of well-being: Informative and directive functions of affective states. *Journal of Personality and Social Psychology*, 45, 513- 523.
- Schwarz, N., & Clore, G. L. (in press). Feelings and phenomenal experiences. In E. T. Higgins & A. Kruglanski (eds.), *Social psychology. Handbook of basic principles* (2nd ed.). New York: Guilford.
- Weiner, B. (1985). "Spontaneous" causal thinking. *Psychological Bulletin*, 97, 74-84.

For further information contact: Anastasiya Pocheptsova, Yale School of Management, P.O. Box 208200, New Haven CT 06520-8200, email: [anastasiya.pocheptsova@yale.edu](mailto:anastasiya.pocheptsova@yale.edu)

## Letting Good Opportunities Pass Us By: Examining The Role Of Mindset During Goal Pursuit

Julia Belyavsky, University of Florida

### ABSTRACT

Prior research has been used to support the proposition that individuals should form implementation intentions and shift from a deliberative to an implemental mindset when pursuing their goals (Gollwitzer 1990, 1993). Individuals who supplement their goals with implementation intentions have achieved higher goal attainment rates than individuals who act solely upon the basis of goal intentions (Gollwitzer 1999; Gollwitzer, Bayer, and McCulloch 2005). Implementation intentions also help individuals overcome previously anticipated problems on their way toward goal achievement. Moreover, implementation intentions have been shown to be effective for a wide array of goals, including goals that may seem inconvenient (Gollwitzer and Brandstatter 1997), goals that are unpleasant to perform (Orbell et al. 1997; Sheeran and Orbell 2000), and goals that may be easily forgotten (Sheeran and Orbell 1999). Adopting an implemental mindset during goal-pursuit has been shown to lead to better task performance and may be mediated by enhanced self-efficacy, optimistic outcome expectations, and perception of a task's ease (Armor and Taylor 2003; Gagne and Lydon 2001).

Whereas a deliberative mindset is commonly exhibited when choosing among goals, individuals often adopt an implemental mindset once a goal is selected and a plan to execute goal-directed behavior has commenced (Gollwitzer, Heckhausen, and Steller 1990). In a deliberative mindset, individuals maintain a heightened receptiveness to goal-relevant information. Once they adopt an implemental mindset and begin goal-directed activity, however, they engage in narrower, increasingly selective information processing (Gollwitzer 2003). Individuals also disregard information that appears to be irrelevant and peripheral (Gollwitzer, Fujita, and Oettingen 2004), become less concerned with information related to goal desirability or feasibility, and, when provided with such information, often distort it to support their prior goal decision (Gollwitzer and Kinney 1989; Harmon-Jones and Harmon-Jones 2002). Individuals in an implemental mindset have also been shown to exhibit a greater illusion of control (Gollwitzer and Kinney 1989; Taylor and Gollwitzer 1995) and are more likely to overestimate their probability of success (Puca 2001) than individuals in a deliberative mindset.

Though adopting an implemental mindset helps individuals follow through with their selected means and avoid distractions when pursuing their goal, to be effective they should continue to scrutinize their selected means to determine whether it will achieve the intended goal or whether it should be adjusted along the way. If the chosen means does not lead to goal achievement, individuals need to seek other means to reach the goal or even disengage from the goal altogether. A few studies exploring the "opportunistic planning" phenomenon suggest that individuals in the implemental mindset are able to shift their plans to accommodate better, unforeseen opportunities to achieve their goals. However, these studies examine the ability to achieve specific goals, which are associated with a specific means to achieve them, rather than more abstract goals that might be associated with numerous pathways. In addition, the opportunities to achieve a goal by a better means, or feedback that the chosen means is inappropriate, have often been made very accessible by the experimenters (Hayes-Roth and Hayes-Roth 1979, Jaudas and Gollwitzer 2004, c.f. Gollwitzer 2004; Patalano and Seifert 1997). Thus, individuals had to exert little effort to notice alternative goal-achievement opportunities or to realize that their goal cannot be achieved by the chosen means.

Contrary to prior research, this work begins with the premise that in many settings thoughtful deliberation is required for individuals to consider all of their goals, to prioritize goals, to decide how to achieve their goals, and to re-examine the appropriateness of their chosen (and alternative) means as they engage in goal-pursuit. Whereas research by those who have studied implementation intentions to this point suggests that forming such intentions typically does not lead to mental rigidity, evidence in several research streams outside the area of goal pursuit supports that possibility. It raises the possibility that the implemental mindset may lead to increased rigidity and decreased flexibility, decreased likelihood to notice or take advantage of other opportunities to goal achievement, and a greater likelihood of becoming preoccupied with executing the chosen means to the extent of losing sight of the actual goal.

Several experiments are proposed to address these issues. All of the experiments utilize the same basic setup where individuals are presented with a loyalty program with one key means via which a reward can

be earned. Next, some participants are led to adopt an implemental mindset, whereas others maintain a deliberative mindset. Subsequently, the participants are either subtly or directly presented with superior alternative means or with explicit or inexplicit feedback about the quality of this means. Their ability to notice and/or take advantage of these alternative means and ability to disengage from a counterproductive means are measured. Study 1 examines how attention is affected by the progression from the deliberative to the implemental mindset. Study 2 looks at how adopting an implemental mindset affects ability to notice that a chosen means might be inappropriate and might not lead to the goal. Study 3 examines circumstances when adopting the implemental mindset will lead individuals to notice superior alternative means to achieve their goal, but still not take advantage of them. Study 4 identifies some of the ways in which forming implementation intentions can lead to a transfer of commitment from

a goal to a selected means and cause individuals to focus more on attaining the means versus achieving the ultimate goal. The goal of this set of studies is to show that an implemental mindset may not always be optimal when working to achieve a goal. Individuals may benefit from being aware of some of the consequences that may be associated with the implemental mindset and they may often be more productive remaining in a deliberative mindset. Avoiding the formation of rule-like implementation intentions in favor of a more flexible plan and remaining in a deliberative mindset may allow individuals more control over their capability to monitor their environment for better goal-directed pathways.

For further information contact: Julia Belyavsky at [jbelyavs@ufl.edu](mailto:jbelyavs@ufl.edu) or University of Florida, PO Box 117155, Gainesville, FL 32611.



## The Role of Spatial Groupings on the Spread of Good and Bad Qualities

Arul Mishra, University of Iowa

Dhananjay Nayakankuppam, University of Iowa

### ABSTRACT

In the consumer judgment domain we see several examples where groupings of products, objects, and people are depicted – for instance, product groupings in a retail outlet, a variety of food items grouped together or depictions of people or products in advertisements. Does the belief that good or bad qualities spread influence consumer perceptions of these groups? The main aim of my dissertation is to study the influence of these spatial groupings on consumer choices, preferences, and behavior, both for gains and losses. Specifically, I propose that when two groups provide an equal chance of a gain (e.g., one product in each group contains a gift coupon) then people prefer picking from the group in which objects are kept close together (the ‘close’ group). However, when two groups provide an equal chance of a loss (e.g., one product in each group has a defect), people prefer picking from the group where the objects are kept far apart (the ‘apart’ group). Such a pattern of preferences would indicate that in the domain of gains people feel there is a higher likelihood of drawing the gain-product (the specific product with a gift coupon) from the close group, while in the domain of losses they feel there is a lower likelihood of drawing the loss-product from the apart group. Normative theory would predict that people should be indifferent between the two groups. However, I demonstrate that people utilize spatial grouping, a non-informative factor, as a cue in their preferences.

I first demonstrate the differential influence of spatial groupings in the gain and loss domains in experiment 1 and 2. Then, I propose an underlying process utilizing gestalt theory and contagion theory. Gestalt theory states that a group of objects that is arranged economically, regularly, simply, symmetrically or proximally forms a better whole or cohesive group (Kohler 1929; Koffka 1935; Kimchi

1992). The contagion concept suggests that there is a transfer of a quality called the ‘essence’ from a source to a target (Rozin and Nemeroff 2002; Rozin, Markwith and Nemeroff 1992). Utilizing both theories in conjunction, I propose that groups with better gestalt features generate a greater sense of contagion and hence are preferred in the gain domain. While groups with poor gestalt features engender a lower sense of contagion and hence are preferred in losses. I further present three alternate accounts – motivational reasoning, contagion by itself being sufficient, and subjective probability estimates caused by perception. In experiments 3 and 4, I test the proposed account, rule out the alternate accounts, and moderate the differential influence of spatial grouping on choice in the domain of gains and losses.

### REFERENCES

- Kimchi, R. (1992). Primacy of Wholistic Processing and Global/Local Paradigm: A Critical Review. *Psychological Bulletin*, 112 (July), 24-38.
- Koffka, K. (1935). The Environmental Field: Visual Organization and its Laws. in *Principles of Gestalt Psychology*, Oxford, England: Harcourt, Brace, 106-176.
- Kohler, W. (1929). The Properties of Organized Wholes. in *Gestalt Psychology* Oxford, England: Liveright, 187-223.
- Rozin, P., Millman, L. & Nemeroff, C. (1986). Operation of the Laws of Sympathetic Magic in Disgust and Other Domains, *Journal of Personality and Social Psychology*, 50(4), 703-712.
- Rozin, P. Maureen M. & Nemeroff, C. (1992). Magical Contagion Beliefs and Fear of AIDS. *Journal of Applied Social Psychology*, 22 (July) 1081-1092.

**Money Matters: Psychological Perspectives of Money and Product Valuation**

Session Chairs: Marco Bertini, London Business School

Leonard Lee, Columbia Business School

Discussant: On Amir, Rady School of Management, University of California-San Diego

**ABSTRACT**

Since the birth of money as a substitute for barter trade at about 1,200 B.C., money has been the primary medium for economic exchange albeit having seen numerous changes in form through the centuries, from cowrie shells and tobacco, to paper currency and electronic cash. This special topic session delves into the psychology of money; it brings together three recent papers that examine how consumers think about money and make product valuations and consumption decisions from three different perspectives: *inter-temporal* (Lee, Ariely, & Bertini), *inter-personal* (Frederick), and *inter-national* (Wertenbroch, Soman, & Chattopadhyay).

Lee, Ariely, and Bertini demonstrate that thinking about money, compared to other more hedonic inputs for consumption decisions, can be difficult. Using a pair-wise choice experimental paradigm, they found that when people are given information about product prices or simply asked to think about prices during choice, they tend to make more transitivity errors and exhibit greater preference inconsistency in their choices. Ironically, such money considerations also make consumers more confident of their decisions.

Shifting from an intra-personal perspective to an inter-personal perspective, Frederick presents his intriguing finding that people seem to (erroneously) believe that others value goods more than they themselves do. This prediction error is surprisingly robust as it holds for both real goods (e.g. a teddy bear, smoked salmon, and a basketball) and hypothetical goods (e.g. trips to the moon, and vocabulary enhancing pills), as well as for nearly every good (when averaged across respondents) and for nearly every respondent (when averaged across goods)!

Wertenbroch, Soman, and Chattopadhyay examine how people perceive the value of money across national borders. They found that people tend to over-spend when the nominal value of the foreign currency is higher but under-spend when it is lower. They developed a framework to identify boundary conditions that specify the direction of anchoring effects on valuations in different currencies.

This series of papers should be of great interest not only to economists and psychologists, but also to anyone who is fascinated by how people think about

money and how money considerations affect product choice and spending decisions. (While SCP conference attendees revel in the razzle-dazzle of the casinos and night shows in Las Vegas, we believe that it would perhaps be insightful for them to also think a little about the psychology behind the money being spent!)

**Money Muddles Thinking: The Effects of Price Considerations on Preference Consistency**

Leonard Lee, Columbia Business School

Marco Bertini, London Business School

Dan Ariely, MIT Sloan School of Management

The history of money is a story thousands of years old. Many early instances of money were objects useful for their intrinsic value such as cowrie shells, iron nails, ivory, tobacco, salt, spices, and even whale's teeth. Fiat or legal tender money, on the other hand, is a relatively modern invention, an abstraction whose purported function is to facilitate trade by acting as a medium of exchange, a store of value, and a unit of account.

Despite the antiquity and ubiquity of money, surprisingly little is known about its influence (if any) on everyday purchase decisions. While some researchers have examined how prices affect perceptions of product quality (e.g. Gerstner 1985), introspection (Wathieu & Bertini, forthcoming), and even consumption experiences (Shiv, Carmon, & Ariely, 2005), the more fundamental issue of whether the mere consideration of money makes the act of choosing easier or more difficult remains unanswered.

In this research we argue that the hedonic representation of money in the minds of consumers is ill-defined and that preference judgments involving money are more difficult to carry out as a consequence. To test this hypothesis, we investigated whether the availability of price information for a set of 10 differentiated products (t-shirts) affects the consistency of sequential choices in pair-wise comparisons. As a measure for preference consistency, we computed the number of transitivity violations across experimental conditions. Across four studies, we consistently found that when consumers considered prices in their decision making, their preferences were more intransitive. We

were able to show that it is the active consideration of prices during decision making, not the availability of price information per se, which contributed to the lower degree of consistency. Finally, we also found support for the notion that although participants were more inconsistent in their choices when they thought about prices, they were actually more confident in their decisions (when the option to express indifference was made available).

### **Frugality in a World of Extravagance: Self/Other Discrepancies in Payment and Compensation Judgments**

Shane Frederick, MIT Sloan School of Management

In seven studies involving both real goods (e.g., teddy bears, smoked salmon, jellybeans, and basketballs), and hypothetical goods (e.g., trips to the moon, vocabulary enhancing pills), I show strong consensus effects in prediction of “market values”; that is, predictions of others’ willingness to pay (WTP) were significantly correlated with one’s own WTP.

Overlaying this expected consensus effect, was another unexpected and robust finding. In addition to being heavily influenced by one’s own WTP, respondents also generally believed that others would pay more to acquire a good than they, themselves, would (i.e., relative to oneself, others are “spendthrifts”). For example, in one study, the actual median WTP for a small teddy bear was just \$1, but the *predicted* median WTP was \$4.90. Out of 35 students who evaluated the teddy bear, 32 believed that the median bid exceeded their own bid. This was true whether the “market value” was operationalized as the *mean* or *median* valuation of some target group (e.g., one’s classmates), the valuation of a specific but anonymous student (e.g., the person handing their survey in just after them) or the valuation of a specified student from their class (e.g., Lisa Curhan). The basic result held across every experimental context, whether both responses were entirely hypothetical, or whether own WTPs were elicited via second price auctions for real goods, coupled with monetary rewards for predicting other’s bids. Furthermore, the effect held for nearly every single good (when averaged across respondents) and for nearly every single respondent (when averaged across goods).

The consensus and overestimation effects interact. For those above the median bid, both effects work to inflate estimates relative to the true median bid. Below the median bid, the effects oppose one

another, with consensus effects pulling estimates downward, toward own bid, and overestimation effects pulling them upward. If the consensus effect alone was operating, all respondents below the median should generally underestimate the median. However, in most cases, even these respondents *overestimated* the median. Indeed, even those subjects who placed no personal value on the specified good tended to over-predict its valuation by others. For example, in a second price auction for a piece of hand-blown glass artwork, the median bid was \$5, but the regression line relating estimated bids to actual bids was:  $\text{Prediction} = \$10.27 + 0.40\text{Own}$ . Thus, the intercept at the zero bid was more than twice the actual median bid!

Two follow-up studies examined self/other judgments in the context of hypothetical “bads” (e.g. shaving one’s head, sharpening 100 pencils, eating whole jalapeno peppers). For bads, respondents typically predict that others will demand significantly *less* than they, themselves, will (i.e., relative to oneself, others are “prostitutes”). For example, respondents demanded an average of \$3,104 to shave their head, yet predicted that others would demand just \$328.

### **On the Perceived Value of Money: The Reference Dependence of Currency Numerosity Effects**

Klaus Wertenbroch, INSEAD  
Dilip Soman, Rotman School of Management,  
University of Toronto  
Amitava Chattopadhyay, INSEAD

Why does foreign money often feel like play money to travelers? Their spending abroad often differs in real terms from what they spend on the same things at home. Why is there a widespread feeling among European consumers that the change from national currencies to euros, the common currency introduced in 2002, resulted in a dramatic rise in inflation, despite evidence to the contrary? For example, in Germany perceived inflation was 9.6% in December 2005, although actual inflation was just 2.1% according to the German Bundesbank.

Both problems might arise from a fundamental mistake in how people perceive the value of money, which economist Irving Fisher dubbed ‘money illusion’ almost 80 years ago. Money illusion means the nominal (face) value of money affects perceptions of its real value. It not only biases individual consumers’ and managers’ decisions under inflation or when using foreign currencies. It may also have serious macroeconomic consequences as shown by European

consumers' price perceptions.

We examine the psychological processes involved in evaluating transactions in foreign currencies. Recent mixed findings on consumer valuations in different currencies suggest that the underlying anchoring and adjustment processes are complex. We develop an integrative framework to identify boundary conditions that specify the direction of anchoring effects on valuations in different currencies. Consumers anchor on the numerosity of the nominal difference between prices and salient referents (e.g., budgets) when evaluating transactions. Support for our framework comes from a series of experiments that evoke different reference standards.

In several laboratory experiments with hypothetical as well as incentive-compatible designs, we gave respondents in Hong Kong, the U.S., and Germany a budget in a foreign or in their home currency and asked them how much they would spend on various transactions. We found that, for a given transaction, people spend less in real terms in a foreign currency than in their home currency when the nominal value of the foreign currency is less than that of their home currency (e.g., for a U.S. consumer in Europe, US\$ 1=€ 0.80). When the nominal value of the foreign currency is higher (e.g., for a U.S. consumer in Singapore, US\$ 1=S\$ 1.70), consumers spend more. In other words, consumers *underspend* when using less numerous currencies than

their home currency, and they *overspend* when using more numerous currencies. We show that this occurs because people evaluate transactions by estimating the nominal difference between their budget and the price of a given good or between prices of competing goods.

For example, people's real willingness to gamble their own money almost doubled when we increased the nominal value of the currency in which they bet by a factor of 100 while holding the real expected value of the gamble constant. Our respondents reacted to the nominal, not the real, difference between their budgets and the expected value of the gamble. In another experiment, market shares of name brands increased relative to those of private labels when both were priced in less numerous euros than in a more numerous currency. That is because the nominal price premiums of the national brands over the private labels were smaller in euros.

Our findings not only explain to marketers how currency denominations affect real spending or private label market shares, they are also consistent with the excessive perceived inflation in much of Europe noted above. Converting national currencies to euros has left consumers feeling nominally poorer than before. Our framework may thus provide a psychological explanation for what has puzzled economists and policy makers since 2002.

### When Consumers Judge a Book by Its Cover: Emergent Research in Packaging Design

Chairs: Barbara E. Kahn, The Wharton School, University of Pennsylvania  
 Durairaj Maheswaran, Leonard N. Stern School of Business, New York University  
 Discussant: Peter Bloch, College of Business, University of Missouri, Columbia

#### The Perceptual Transfer of Product Container Haptic Cues

Aradhna Krishna, Ross School of Business,  
 University of Michigan  
 Maureen Morrin, Camden School of Business,  
 Rutgers University

Does food served on a paper plate taste worse than the same food served on a china plate? Does mineral water tasted from a flimsy cup taste worse than the same water tasted from a firmer cup? Although the paper plate and flimsy cup may be less aesthetically appealing to a consumer, rationally speaking, the product containers should not affect the actual quality or taste of the products within those containers. Nevertheless, in this manuscript we develop a conceptual framework which posits that haptic or touch-related characteristics of product containers may indeed be transferred to the products contained therein through consumer inferences and evaluations. Thus, the firmness of the cup or bottle in which water is served may affect brand inferences, perceptions of product quality, and the price consumers are willing to pay. This framework also predicts that not all consumers are equally affected by such irrelevant or nondiagnostic haptic cues from product containers. Rather, we propose that haptically oriented individuals, or those who tend to enjoy touching products, will be less impacted by such cues, due to the ease with which they can process haptic input and discern its diagnosticity.

We conduct three studies. The first two studies are designed to test whether low, but not high, haptically-oriented consumers tend to incorporate nondiagnostic haptic cue information into their evaluations. The third study is designed to test the underlying process mechanism, by seeing whether high and low haptically-oriented consumers would process nondiagnostic haptic cue information differently if their cognitive capacities were constrained.

Beyond its theoretical contribution to sensory research, the research also yields many managerial insights regarding package and product design.

#### Is Your Product on the "Right" Side? -- Measuring Package's Visual Weight

Xiaoyan Deng, The Wharton School, University of Pennsylvania  
 Barbara E. Kahn, The Wharton School, University of Pennsylvania

Due to the fact that nearly two-thirds of grocery shopping decisions are made at the point-of-purchase, there has been a growing interest in the perceptual influences of product packaging. In this paper, we view the façade of a package as a visual field. We draw upon the "right-heaviness" and "bottom-heaviness" principles in visual perception to distinguish between "heavy spots" and "light spots" on a package. "Right-heaviness" suggests that since the focal point of consumers who have developed left-to-right reading orientation is on the left side, a product image on the right side pulls the package down due to the "level effect" and is thereby perceived as heavier. "Bottom-heaviness" holds that, because of the gravitational attraction, we are accustomed to experiencing the normal visual situation as bottom-heavy. Based on these two axioms, we hypothesize that product images displayed on a package's "heavy spots" (the right side, the bottom side, and the bottom-right corner) should be perceived as visually weightier than product displayed on "light spots" (the left side, the top side, and the top-left corner). Further this perceptual inference can influence consumers' preferences for one package over another depending on the product category and consumers' consumption goals. In particular we predict if a consumer's goal is to get more value, perceptual heaviness would be preferred. On the other hand, if a consumer's goal was to consume less (say for dietary reasons), perceptual lightness would be preferred.

We test these hypotheses in two laboratory experiments. In Study 1, using geometric forms to represent snack food image, we find strong support for our baseline hypothesis ( $p < .0001$ ). Moreover, participants preferred "heavy packs" (i.e., placing product on heavy spots) over "light packs" (i.e., placing product on light spots) across different package shapes and snack category ( $p = .003$ ). This effect, however, is qualified by an interaction ( $p = .02$ ) which indicates that, for fattier snacks (e.g., cookies),

participants were indifferent to package's visual weight ( $p=.65$ ), while for healthier snacks (e.g., crackers), they significantly preferred "heavy packs" over "light packs" ( $p=.002$ ). Our mediation analysis further suggests that the effect of snack image placement on preference for package is fully mediated by product's perceived heaviness or package's visual weight.

In Study 2, using actual product images (rather than geometric forms) and explicitly manipulating consumers' goals via a scrambled sentence task, we found a marginally significant ( $p=.08$ ) three-way interaction among goal, snack category, and snack image placement. More specifically, relative to primed neutral goal, primed health goal significantly increased participants' preference for light packs ( $p=.01$ ) and decreased their preference for heavy packs ( $p=.006$ ), for fattier snacks, arguably because under a health mind-set they want to consume less of it. Whereas for healthier snacks, of which participants might want more under a health mind-set, primed health goal did not significantly increase their preference for light packs ( $p=.11$ ), nor did it significantly decrease their preferences for heavy packs ( $p=.13$ ), relative to primed neutral goal.

### **Geometry in the Marketplace**

Eric Greenleaf, New York University  
Priya Raghubir, University of California at Berkeley

While the question of how people perceive different geometric shapes has been studied in psychology and aesthetics, this question has received

less attention in the area of package design, even though geometry is an important element of packaging. We advocate that consumer reactions to package design can be studied by combining what has been learned about their reactions to geometry in the areas of psychology and aesthetics with concepts from consumer behavior and marketplace competition. We first present as examples two geometric design features, i) planned distortion and ii) incomplete patterns and shapes, that have been studied in the perceptual literature and have been used in the design of art and architecture. We then discuss how these features are relevant for package design. We next present an agenda of research opportunities to investigate how geometric design features may affect consumers, including the area of particular interest to marketers designing packages as well as consumer behavior researchers, such as consideration sets and competition. We then take a broader perspective to culminate our consideration of consumer response to the geometry of package design, and present a more integrative conceptual model that draws on concepts in consumer behavior, psychology, and aesthetics. This model i) delineates four primary geometric properties of packages (complexity, curvature, congruence, and completeness), ii) proposes routes through which they affect consumer judgments (attention, affect, and inferences), iii) describes factors moderating their effect (consumer context and individual differences), and iv) proposes marketing implications for tactics using the familiar "four Ps" of the marketing mix (product design, placement, promotion, and pricing).

**To Be Or Not To Be Consistent:  
Should Marketers Always Use The "Puma" Approach To Brand Logo Consistency?**

Bruno Kocher, University of Lausanne  
Sandor Czellar, HEC School of Management

**ABSTRACT**

In an integrated marketing communications perspective, brand names and logos are prominent means to communicate brand identity to consumers (Aaker, 1996; Henderson & Cote, 1998; Keller, 1998; Shimp, 2003). Although, some scholars have begun to investigate how to increase consistency between brand names and logos (Henderson, Giese, & Cote, 2004; Klink, 2003), we still know relatively little about when brand name-logo consistency really matters to consumers. Therefore, we investigate the conditions under which brand name-logo consistency affects consumer attitudes. We first propose an exploratory study that studies the association between brand name-logo consistency perceptions and brand attitudes. Then, step by step, we advance and experimentally test theoretical propositions about the possible mechanisms at play. Our three studies represent a step toward a future framework that may provide a better understanding of the role of consistent brand elements and their contribution to positive brand attitudes.

The aim of the preliminary exploratory study is to investigate whether there is a general association between perceptions of brand-name logo consistency and brand attitudes. Pearson's correlation coefficient between brand attitude and brand name-logo consistency is suggestive of the presence of a fairly strong association between perceptions of brand-name logo consistency and brand attitudes ( $r = .66, p < .05$ ).

The purpose of next two studies is to better understand the nature of this relationship through experimental designs. We are specifically interested to uncover which brand-related and consumer-specific variables may moderate this relationship.

The second study is designed to assess the impact of a brand-related variable (perceived initial consistency between brand name and logo) and a consumer trait (preference for consistency; Cialdini, Trost, & Newsom, 1995) on the link between brand name-logo consistency and brand attitudes. Our rationale was that brands may have different levels of perceived global fit between their brand elements and that these differences may affect consumers' brand attitudes. So, we propose that brand attitudes resulting from brand logo actions (introducing a new

logo being either consistent or not consistent with the brand) will be conditional on the interaction between perceived initial consistency between brand and logo and the consumers' preference for consistency (PFC) level. Hence:

**H1:** If perceived initial consistency between brand name and logo is low (vs. high), consumers with a high PFC will have more positive brand attitudes after a brand action that increases consistency between brand name and logo than consumers with a low PFC.

The results show the emergence of a ceiling-like effect: Brands already possessing a high brand-logo consistency may not enhance consumer's attitude through increased consistency between brand name and logo, and this independently of consumers' level of preference for consistency. On the other side, brands having a low perceived initial consistency are encouraged to increase this low consistency, especially for consumers with a high PFC. Through this shift, they may increase attitude toward the brand, especially for consumers having a high PFC.

The third study tests the effect of another brand-related factor, brand status, on the link between brand name-logo consistency and brand attitudes. If a high status brand initiates changes in marketing strategy, be these changes even be consistent with their current strategy, they will probably not be met with enthusiasm on the consumers' side. However, such a reactance effect is not expected for low status brands, which plausibly have more freedom in their positioning strategies and tactics than high status brands. We therefore propose that:

**H2:** If brand status is low (vs. high), consumers will have more positive brand attitudes after a brand action that increases consistency between brand name and logo than after a brand action that decreases consistency between brand name and logo.

The results support hypothesis 2 and suggest that brand status exerts a moderating effect on the relationship between brand-logo consistency and brand attitudes. More specifically, when a brand is a status brand, consumers may not want a change in its logo, should it enhance or not consistency. They

probably wish the brand to be stable in its position of high status and any changes may potentially hinder this position. On the other hand, brands not having a high status may well benefit from an increased consistency between the brand name and the logo.

The three studies presented in this paper enhance our knowledge in an emerging new stream of research on brand name-logo relationships (Klink, 2003). All three studies have established a strong positive relationship between brand-logo consistency perceptions and consumer attitudes toward brands. Our results suggest that consumers indeed prefer brand logos that are consistent with the brand. However, as we illustrated in study 2 and 3, this positive effect is conditional on several factors (e.g. perceived initial consistency and brand status). These results suggest that consistency between brand names and logo is far more complex as might appear at first sight and moderating factors may alter consumers' attitude toward brands. Other potential variables may extend our emerging framework and lead to a more complete picture of how consistent brand elements shape brand attitudes. For example, it would be interesting for future research to study situations in which brand attitudes toward inconsistent brand elements may be more favorable than brand attitudes toward consistent brand elements. Specifically, we could expect that children and elderly consumers may prefer more consistent brand elements (facilitating recognition) while teenagers may prefer inconsistent logos (in order to feel or look different from other

consumers).

#### REFERENCES

- Aaker, D. A. & Keller K. L. (1990). Consumer evaluations of brand extensions. *Journal of Marketing*, 54, 27-41.
- Cialdini, R. B., Trost, M. R., & Newsom J. T. (1995). Preference for consistency: The development of a valid measure and the discovery of surprising behavioral implications. *Journal of Personality and Social Psychology*, 69, 318-328.
- Henderson, P. W. & Cote, J. A. (1998). Guidelines for selecting or modifying logos. *Journal of Marketing*, 62, 14-30.
- Henderson, P. W., Giese J. L., & Cote J. A. (2004). Impression management using typeface design. *Journal of Marketing*. 68, 60-72.
- Keller, K. L. (1998). *Strategic brand management: building, measuring, and managing brand equity*. Upper Saddle River, New Jersey: Prentice Hall.
- Klink, R. R. (2003). Creating meaningful brands: The relationship between brand name and brand mark. *Marketing Letters*, 14, 143-157.
- Shimp, T. A. (2003). *Advertising, promotion, & supplemental aspects of integrated marketing communications*, Thomson, South-Western.

For further information, please contact Sandor Czellar, Assistant Professor of Marketing, HEC Paris, 1, Rue de la Libération, 78351 Jouy-en-Josas, France, phone + 33 1 39 67 95 97, [czellar@hec.fr](mailto:czellar@hec.fr).



**Brand Relationship Quality and Brand Extension Judgments: Importance of Consistency at Attribute Level**

Kyeongheui Kim, University of Toronto  
Jongwon Park, Korea University  
JungKeun Kim, University of Minnesota

**ABSTRACT**

Much research has provided evidence that a “relationship” matters in business marketing settings such as manufacturer-supplier and manufacturer-retailer relationship (e.g., Dwyer, Schurr, & Oh, 1987; Garbarino & Johnson, 1999; Morgan & Hunt, 1994; Sheth & Parvatiyar, 1995). Similarly, quality of relationships between consumers and brands or brand relationship quality (BRQ, hereafter) has been emphasized in consumer domains (e.g., Fournier, 1998; e.g., Garbarino & Johnson, 1999). The latter is based on the implicit assumption that building a strong BRQ would have important strategic values. Yet, the empirical evidence of it is relatively limited. In addition, boundary conditions and mediating processes for the BRQ effect to occur are not well understood. The present research intended to provide insights into this matter.

In two studies, we examined the effect of BRQ in the context of brand extension judgments. To do so, product category similarity and attribute consistency between extension and the parent brand were manipulated, and the level of BRQ was assessed via self-report measures. The two studies differed in terms of method (survey vs. experiment), participants (real consumers vs. college students), brand categories (non-durables vs. durables), and culture (Eastern vs. Western). Regardless of these differences, however, both studies consistently showed a significant 3-way interaction effect, suggesting that the BRQ effect emerged either dependently upon or independently of the category similarity as a function of the level of attribute consistency.

Specifically, several important findings were obtained from this research. First, as expected, BRQ significantly influenced extension judgments. However, the effect was restricted to conditions in which the product category was similar while the attribute was inconsistent, or the category was dissimilar while the attribute was consistent. Further, these results were replicated over dependent variables (overall evaluations vs. purchase intentions), over different cultures, and over different product types (i.e., non-durables in study 1 and durables in study 2).

The significant effect of BRQ only in the consistent-dissimilar and in the inconsistent-similar

combinations suggests that the BRQ can come into play for extension evaluations only when the overall fit between the extension and the parent brand is modest, but has no room for an effect when the fit was either very high (i.e., when the attribute is consistent and the category is similar) or very low (i.e., when the attribute is inconsistent and the category is dissimilar). In addition, the BRQ effect appears to operate via different mechanisms under the two conditions. Specifically, mediation analyses indicated that the BRQ effect on evaluations was attributable to differences in perceptions of attribute consistency when the extension category was dissimilar, whereas it was mostly attributable to differences in strength of attribute beliefs when the attribute was in fact inconsistent. This is consistent with the cognitive assimilation or cognitive bias suggested by the interpersonal relationship literature.

In sum, this research makes a contribution to the brand relationship research by providing a concrete evidence for the strategic importance of BRQ effect and by identifying the boundary conditions for the effect. In addition, multiple mediation processes governing the effect depending on the extension conditions provide important theoretical implications. Future research which directly manipulates these processes to show their mediation role for the BRQ effect is of great importance.

**REFERENCES**

- Anderson, E., & Weitz, B. (1992). The use of pledges to build and sustain commitment in distribution channels. *Journal of Marketing Research*, 29(February), 18-34.
- Dwyer, F. R., Schurr, P. H., & Oh, S. (1987). Developing buyer-seller relationships. *Journal of Marketing*, 51(April), 11-27.
- Fournier, S. (1998). Consumers and their brands: Developing relationship theory in consumer research. *Journal of Consumer Research*, 34(March), 343-373.
- Garbarino, E., & Johnson, M. S. (1999). The different roles of satisfaction, trust, and commitment in customer relationships. *Journal of Marketing*, 63(February), 70-87.
- Morgan, R., & Hunt, S. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(July), 20-38.

Sheth, J. N., & Parvatiyar, A. (1995). Relationship marketing in consumer markets: Antecedents and

consequences. *Journal of Academy of Marketing Science*, 23(4), 255-271.

**TABLE 1**  
**Extension Evaluations and Purchase Intentions**  
**as a Function of Category Similarity, Attribute Consistency and BRQ (Study 1)**

| BRQ group                   | Consistent attribute |                     | Inconsistent attribute |                     |
|-----------------------------|----------------------|---------------------|------------------------|---------------------|
|                             | Similar category     | Dissimilar category | Similar category       | Dissimilar category |
| <b>Study 1 (Survey)</b>     |                      |                     |                        |                     |
| Evaluations                 |                      |                     |                        |                     |
| High BRQ                    | 4.94                 | 4.54                | 4.94                   | 4.40                |
| Low BRQ                     | 4.76                 | 3.76                | 4.52                   | 4.33                |
| <i>d</i>                    | 0.18                 | 0.78**              | 0.42**                 | 0.13                |
| <b>Study 2 (Experiment)</b> |                      |                     |                        |                     |
| Evaluations                 |                      |                     |                        |                     |
| High BRQ                    | 6.50                 | 5.79                | 5.81                   | 5.08                |
| Low BRQ                     | 6.06                 | 4.07                | 4.25                   | 4.57                |
| <i>d</i>                    | 0.44                 | 1.72**              | 1.56**                 | 0.51                |
| Purchase intention          |                      |                     |                        |                     |
| High BRQ                    | 4.81                 | 5.35                | 4.29                   | 3.79                |
| Low BRQ                     | 4.81                 | 2.45                | 3.18                   | 3.05                |
| <i>d</i>                    | 0.00                 | 2.90**              | 1.11**                 | 0.74                |
| Belief strength             |                      |                     |                        |                     |
| High BRQ                    | 5.88                 | 5.83                | 4.72                   | 5.22                |
| Low BRQ                     | 5.81                 | 4.43                | 3.68                   | 4.10                |
| <i>d</i>                    | 0.07                 | 1.40**              | 1.04*                  | 1.12*               |
| Attribute consistency       |                      |                     |                        |                     |
| High BRQ                    | 6.26                 | 6.45                | 5.06                   | 4.58                |
| Low BRQ                     | 5.97                 | 4.20                | 4.45                   | 4.30                |
| <i>d</i>                    | 0.29                 | 2.25**              | 0.61                   | 0.28                |
| Overall similarity          |                      |                     |                        |                     |
| High BRQ                    | 4.69                 | 3.88                | 4.56                   | 2.75                |
| Low BRQ                     | 4.91                 | 2.80                | 3.68                   | 2.38                |
| <i>d</i>                    | -0.22                | 1.08                | 0.88                   | 0.37                |
| Mood                        |                      |                     |                        |                     |
| High BRQ                    | 6.05                 | 6.15                | 5.64                   | 5.56                |
| Low BRQ                     | 5.98                 | 5.53                | 5.42                   | 5.25                |
| <i>d</i>                    | 0.07                 | 0.62*               | 0.18                   | 0.31                |

Note: \*\* significant at  $p < .05$ , \* significant at  $p < .10$ .

### How Do Brand Rumors Persuade? The Response Is Automatic...

Claudiu V. Dimofte, Georgetown University

Richard F. Yalch, University of Washington

#### ABSTRACT

Consumers are often exposed to negative rumors that stretch credibility but adversely affect sales. Organizational efforts to combat such rumors are often frustrated by the finding that many rumors without credibility or even obviously false still adversely affect them. The rumor propagation phenomenon is a challenge to the economic system because standard methods of consumer education are ineffectual and to psychological theories of attitudes based on a rational consideration of beliefs and their affective implications (Fishbein & Middlestadt, 1995).

Allport & Postman (1947) first defined the rumor as a specific proposition or belief passed along from person to person without any secure standards of evidence. In the most thorough consumer research investigation of methods to counter rumors, Tybout, Calder, & Sternthal (1981) found that belief in a rumor was not a necessary condition for it to affect consumer attitudes. This conclusion was further supported by their finding that directly refuting rumors was ineffective. More useful were two memory-altering devices. One, labeled a storage strategy, involved exposing consumers to a secondary stimulus when the rumor information is presented, resulting in the rumor being associated with the secondary stimulus instead of the affected brand. Their other method, labeled a retrieval strategy, consisted of providing consumers with the secondary stimulus at the time of retrieval, thereby lessening the chance of the joint retrieval of brand and rumor information. Despite Tybout et al.'s (1981) useful findings, research on responding to rumors has remained dormant for several decades. This is particularly surprising, as the authors pointedly acknowledged that the precise mechanisms underlining the success of storage and retrieval procedures were not demonstrated and that their results could have "multiple theoretical grounds" (Tybout et al., 1981, p. 78).

The observation that many consumers exhibit difficulty in rejecting the slandering claims of a rumor supports the suggestion that persuasion via rumors does not explicit processing. We propose that rumor processing involves two parallel processes. One involves comprehending the claim and its implications for consumption of the affected product or brand. For example, that rumor's claim that eating

McDonalds' hamburgers exposes one to worm meat. The second concerns the claim's veracity. Here, we propose that consumers encounter difficulty reconciling conflicting beliefs that McDonalds is unlikely to have been successful if it sold unsafe food but there is no way to know for sure that its hamburgers are not contaminated. This, in effect leaves consumers in the state of nonbelief that Maloney (1963) proposed motivates approach or avoidance behavior.

We also propose that rumor processing may use resources or knowledge outside of conscious awareness. Recently developed measures of automatic cognition are now available that allow us to capture such non-conscious processes. One such measure (the Implicit Association Test-IAT-Greenwald, McGhee, and Schwartz 1998) is used across two studies of the storage and retrieval strategies as proposed by Tybout et al (1981). A third study directly compares four rumor quelling strategies using a real world crisis scenario.

Study 1 replicates the storage strategy suggested by Tybout et al (1981) and in the process distinguish between two possible explanatory accounts: whether the introduction of the new stimulus disrupts the association of the brand with the negative rumor or whether association with the positive stimulus improves the rumor's valence. The disrupted association explanation is tested via an IAT between McDonald's/Burger King and worm-related/food-related, whereas the improved valence explanation is addressed in a basic affect IAT between McDonald's/Burger King and pleasant/unpleasant. The findings suggest that a storage strategy is effective at explicit levels in countering an unfavorable rumor. Further, the IAT results show that storage's success is attributable to less unfavorable affect because of the association with a positive cue and not to a lowering of the association between the rumor and the targeted brand.

The second study addressed Tybout et al.'s (1981) retrieval strategy for disrupting rumors and assessed why rumor refutation is often ineffective. Once again, we intended to distinguish between two possible explanatory accounts for the success of the retrieval strategy: is it that exposure to the new stimulus at recall blocks the activation of the brand-rumor association or is it that it just inhibits that

association relative to other, more favorable brand associations? Confirming the results of Study 1, Study 2 eliminates Tybout et al.'s (1981) conjecture that the introduction of a new stimulus either blocks the activation or disrupts the association of the brand with the negative rumor cue. It seems that, once [quickly] formed, these associations are difficult to revoke, a finding reminiscent of the "initial impression perseverance" phenomenon described by Ross, Lepper, & Hubbard (1975). Accordingly, the storage strategy's success (replicated in Study 1) relies on its improving the valence of the rumor cue (i.e., making it appear relatively less negative), whereas the success of the retrieval strategy (tested in Study 2) is something that, as the implicit processing account would predict, we could not replicate.

We next analyzed the three strategies employed by Tybout et al (1981) to overcome rumors (i.e., storage, retrieval, and refutation) in conjunction with one other, the common approach of attacking and discrediting the source and/or its intentions (labeled "counterattack"). The counterattack is assumed to be effective because it assists consumers in marshalling evidence necessary to reject the rumor's validity. On the other hand, by reinforcing the association between the rumor and the brand, refutation was not expected to be effective. Study 3 supports the proposed ad hoc thought generation account and shows that negative brand attitudes emerge quickly, driven by associations that operate outside of conscious awareness. More importantly, it appears that preventing this from happening can only be done indirectly, mainly through the storage strategy. Rumor refutation produces an obligatory rehearsal of

the brand-rumor association and is therefore an unwise strategy. Countering by discrediting the source of the rumor is a less damaging move, but still fails short of storage. Finally, retrieval seems to work much like a distracting cue, one that can nonetheless not significantly reduce the persistence of quickly formed automatic associations.

In conclusion, we propose that information processing theory offers ways to combat rumors that are generally superior to direct refutation. Furthermore, the dissociation between explicit attitudes and subsequent behavior can be accommodated by the implicit account presented above. It proposes that false information persuades via an automatic route by easily building automatic associations between brands and the information cues. While explicitly rejecting the veracity of rumors, consumers lack control over the associations occurring at exposure and practiced during subsequent instances of decision-making. This is a particular manifestation of the curious disbelief phenomenon mentioned by Maloney (1963) and the initial impression perseverance phenomenon described by Ross, Lepper, & Hubbard (1975). However, the present work is the first conceptual account that actually explains these phenomena, via the implicit associations that are shown to quickly emerge upon stimulus encounter.

For further information contact: Claudiu V. Dimofte; Assistant Professor of Marketing; Georgetown University; McDonough School of Business; 308 Old North; Washington, DC 20057; (202) 687-6977; [dimofte@msb.edu](mailto:dimofte@msb.edu)

## The “More Fun = Less Good” Intuition And Its Influence On Consumption Decisions

Rajagopal Raghunathan, The University of Texas at Austin  
Rebecca Walker Naylor, University of South Carolina

### ABSTRACT

*If he [Tom Sawyer] had been a great and wise philosopher, he would now have comprehended that Work consists of whatever a body is obliged to do, and that Play consists of whatever a body is not obliged to do.*

--from *The Adventures of Tom Sawyer*, by Mark Twain (1876)

In perhaps the most commonly recounted episode in *The Adventures of Tom Sawyer*, the protagonist (Tom) manages to extract work from others for free (he gets them to paint a fence for him) by exploiting a lay belief. This lay belief (captured in the excerpt above) suggests that there is a negative correlation between “work” and “fun,” that is, that stimuli (activities, products, people, etc.) can be of either a work-related nature or of a fun-related nature, but not both.

In this research, we explore whether people subscribe to a conceptually related lay belief—one we term the “more fun = less good” intuition—and investigate the consequences of subscribing to such a lay belief for consumption decisions. In brief, the more fun = less good intuition suggests that the higher the hedonic quality of a stimulus, the lower its functional quality. If people subscribe to such a lay belief, we should find, consistent with research on the role of lay beliefs in inference making (e.g., Broniarczyk and Alba 1994; Sujon and Dekleva 1987), that consumers provided with information on the hedonic dimension of a stimulus will intuitively infer the level of functional attributes. For example, a less (vs. more) stylish looking automobile should be inferred to be safer, more practical, greater value for the money and so forth. Further, consistent with the operation of the hypothesis confirmation bias (e.g., Deighton 1984; Hoch and Ha 1986; Raghunathan, Naylor, and Hoyer 2006; Shiv, Carmon, and Ariely 2005), consumers who sample a product/service should confirm the hypotheses generated on the basis of the more fun = less good intuition. For example, a picture purportedly taken by a more stylishly designed camera should be judged as being of a poorer quality than one taken by a less aesthetically pleasing camera. Finally, in circumstances where a functional goal is salient, subscription to the more fun = less good intuition should lead consumers to choose a less (vs. more) hedonic offering—even if no

information relevant to assessing the functional levels of the options was available. For example, consumers should prefer a less attractive shoe when a functional feature of the shoe (e.g., its comfort) is the main determinant of choice. Across the three experiments conducted in this research, we obtain support for these propositions.

In brief, the results of Experiment 1 showed that participants inferred a more stylishly designed car to be less safe, less practical, and a worse value for the money than a less stylish car. In Experiment 2, two groups of participants were shown the same photograph purportedly taken by an amateur photographer using a digital camera. While one group was shown a picture of a “fun-looking” blue camera, the other group was shown a more typical silver camera; both groups were told that the camera shown to them had been used to take the picture. Two identical cameras, differing only in color, were selected to serve as stimuli in order to manipulate only the hedonic potential (“fun-ness”) of the camera while holding brand, megapixels, shape, and other attributes constant. Consistent with our predictions, we found that the same photograph was rated to be of poorer quality when it was purportedly taken by the more “fun” camera.

And finally, in Experiment 3, we found that a shoe described as less hedonically pleasing was preferred when selecting a shoe for hiking (a situation in which comfort was prized). Results from Experiment 3 also revealed that, in selecting a fellow student from whom to get notes for a missed class, a fellow student described as less (vs. more) fun was preferred. Together, these results provide strong evidence in favor of our proposition that people subscribe to the more fun = less good intuition. Results from Experiment 3 also revealed that the influence of the more fun = less good intuition (1) is not restricted to product contexts alone, and (2) can take place implicitly, such that even those participants who reported disagreeing that functionality and hedonics are negatively correlated with one another indicated preferences as if they subscribed to the belief that they shared a compensatory relationship.

In sum, these experiments demonstrate that consumers (1) infer that products that perform well on hedonic attributes perform poorly on functional

attributes, (2) make judgments about actual product experiences that confirm their initial intuition-consistent inferences, (3) choose products that perform poorly on hedonic attributes in situations where functional attributes are deemed more important, even when no information on a product's performance on the functional attributes is provided, and (4) may not be aware of the influence of the intuition on their behavior.

Our findings generate two theoretically interesting and substantively meaningful insights. From a theoretical standpoint, they document evidence that people subscribe to the more fun = less good intuition. This finding is particularly intriguing because there is little—by way of scientific evidence—to suggest that the real-world correlation between the functionality and hedonics of consumption offerings is negative. Second, our findings suggest that the influence of the more fun = less good intuition can be implicit, such that even those consumers who report explicit disagreement with the intuition make decisions *as if* they did believe that hedonics and functionality were inversely correlated. This finding suggests that the influence of the more fun = less good intuition can take place outside of the awareness (of the decision maker) and, therefore, be difficult to control.

For Further Information Contact: Rajagopal Raghunathan, The University of Texas at Austin, 1 University Station B6700, Austin, TX 78712, Raj.Raghunathan@mcombs.utexas.edu, (512) 471-2987, 512-471-1034 (fax).

#### REFERENCES

- Broniarczyk, S. M. & Alba, J. W. (1994). The role of consumers' intuitions in inference making. *Journal of Consumer Research*, 21, 393-407.
- Deighton, J. (1984). The interaction of advertising and evidence. *Journal of Consumer Research*, 11, 763-70.
- Hoch, S. J. & Ha, Y. (1986). Consumer learning: Advertising and the ambiguity of product experience. *Journal of Consumer Research*, 13, 221-233.
- Raghunathan, R., Naylor, R. W. & Hoyer, W. D. (2006). The unhealthy = tasty intuition and its effects on taste inferences, enjoyment, and choice of food products. *Journal of Marketing*, 70, 170-184.
- Shiv, B., Ziv, C. & Ariely, D. (2005). Placebo effects of marketing actions: Consumers may get what they pay for. *Journal of Marketing Research*, 42, 383-393.
- Sujan, M. & Dekleva, C. (1987). Product categorization and inference making: Some implications for comparative advertising. *Journal of Consumer Research*, 14, 372-378.

## The Effect of Making a Prediction about the Outcome of a Consumption Experience on the Enjoyment of that Experience

Naomi Mandel, Arizona State University  
Stephen M. Nowlis, Arizona State University

### ABSTRACT

Consumers sometimes explicitly make predictions about the outcome of an upcoming event. For instance, they might predict the winner of sporting events or game shows, such as March Madness or Survivor, in advance of watching. Furthermore, some TV networks encourage these types of predictions by establishing winner polls and fantasy leagues on their websites. However, it remains an open question what the effect of these advance predictions might have on the ultimate enjoyment of such shows. Although a number of researchers have previously examined how consumers' predictions of their *own* enjoyment relate to their actual enjoyment of a consumption experience (e.g., Gilbert and Wilson 2000), to our knowledge there have been no previous studies relating *whether* consumers predict event outcomes to their enjoyment of those events.

On one hand, predicting an outcome or participating in an office pool might enhance one's experienced enjoyment (e.g., Vosgerau et al. 2006). Choice and involvement can lead to an "illusion of control" (Langer 1975), which may lead individuals to strengthen their beliefs in the success of their predictions. On the other hand, a second stream of research suggests that predictions about the outcome of an event might decrease enjoyment of that event (e.g., Mellers et al. 1997). In particular, a consumer who makes a prediction about the outcome of an event might then feel more anxiety or stress over whether or not their prediction will be correct. A synthesis of prior research findings led us to predict that the degree of uncertainty about the outcome of an event would moderate the effect of making a prediction about the outcome of an event on the enjoyment of watching the event. When uncertainty is high, making a prediction should lower consumer enjoyment, and when uncertainty is low, making a prediction should not lower consumer enjoyment (compared to not making a prediction).

We also examined the process underlying the negative effect of making a prediction on the subsequent enjoyment of a consumption experience. In particular, we expected that in the case of an uncertain event, anticipated regret would mediate the relationship between the act of prediction and the enjoyment derived from the consumption experience.

Furthermore, we did not expect consumers to be aware of the effects of making predictions on their enjoyment of a consumption experience. In a wide range of studies, people have been shown to be poor estimators of their own enjoyment and happiness (e.g., Gilbert et al. 1998). We tested our predictions across four studies.

Study 1 examined whether uncertainty moderated the relationship between predicted outcomes and enjoyment. We manipulated uncertainty by showing events that were pretested to be either high or low on uncertainty. Participants watched either a video clip of the show *Fear Factor* (high uncertainty) or the show *Street Smarts* (low uncertainty). At the time of prediction, the video was paused, and prediction participants made their predictions. After watching the outcome, all participants rated their enjoyment of the video clip (from  $-7$  to  $+7$ ). As predicted, the interaction between prediction and manipulated uncertainty demonstrated a significant effect on enjoyment of the video clip ( $F(1, 131) = 3.77, p < .05$ ). For the *Fear Factor* clip, participants in the prediction condition did not enjoy the video clip as much as those in the no-prediction condition ( $M = 2.40$  vs.  $3.19$ ;  $F(1, 131) = 4.38, p < .05$ ). For the *Street Smarts* clip, participants were equally likely to enjoy the video clip, to want to keep watching and to be curious about the outcome, regardless of whether they had made a prediction.

Study 2 investigated whether anticipated regret mediated the relationship between predicted outcomes and enjoyment. In this experiment, the participants took part in an actual gamble where they could either win 25 cents or win nothing. We manipulated the level of uncertainty associated with the gamble by having subjects play either a 50-50 gamble or a 99-1 gamble. In addition, we manipulated whether or not subjects made a prediction by having the subjects either choose the color of the marble they thought would win (prediction), or be assigned a particular marble color (no prediction). Our results indicated that predicting the outcome of a gamble (by betting) had a significant effect on reported enjoyment only in the high uncertainty condition. We found that neither the main effect of prediction nor that of uncertainty were significant, while the two-way interaction between these variables was significant ( $F(1, 355) = 9.66, p <$

0.01). In the high uncertainty condition, the mean enjoyment associated with participating in the gamble was 3.01 when subjects made a prediction, and 4.37 when they did not ( $F(1,355) = 7.82, p < 0.01$ ). However, in the low uncertainty condition, the mean enjoyment was reported as 3.45 when a prediction was made, and 2.93 when it was not. Furthermore, we established that anticipated regret served as the mediator between predictions and enjoyment.

Study 3 examined whether consumers were accurate judges about how predictions can negatively affect their subsequent enjoyment of a consumption experience. We implemented a 2 (Prediction: Yes vs. No) x 2 (Scenario: Real vs. Hypothetical) between-subject design. Our results were consistent with our predictions. While participants believed, in the hypothetical scenarios, that they would enjoy watching the show more after predicting the outcome, in fact the opposite was true.

Our final study, which is currently ongoing, examines the moderating role of involvement in the relationship between predictions and enjoyment, and also examines alternative explanations for our results.

Television networks are increasingly offering interactive websites where viewers can make advance

predictions about the network's programs. Our research suggests that such strategies, where consumers are encouraged to vote for or predict the winner of an event, can actually reduce the enjoyment that consumers feel while watching the event.

#### REFERENCES

- Gilbert, Daniel T., Elizabeth C. Pinel, Timothy D. Wilson, Stephen J. Blumberg, S.J., and Thalia P. Wheatley, "Immune Neglect: A Source of Durability Bias in Affective Forecasting," *Journal of Personality and Social Psychology*, 75 (September), 617-638.
- Gilbert, Daniel T. and Timothy D. Wilson (2000), "Miswanting," *Thinking and Feeling: The Role of Affect in Social Cognition*, ed. J. Forgas, Cambridge, England: Cambridge University Press, 178-197.
- Langer (1975), "The Illusion of Control," *Journal of Personality and Social Psychology*, 32, 311-328.
- Mellers, Barbara A., Alan Schwartz, and Ilana Ritov (1997), "Emotion-Based Choice," *Journal of Experimental Psychology: General*, 128(3), 332-345.
- Vosgerau, Joachim, Klaus Wertenbroch, and Ziv Carmon (2006), "Indeterminacy and Live Television," *Journal of Consumer Research*, 32 (March), 487-495.



## Why Be Happy When You Can Stay Sad: Affect-Congruent Preference in Consumer Decision-Making

Nancy M. Puccinelli (Upton), Suffolk University

### ABSTRACT

The results of this research found that consumers in a negative affect state would prefer to be in a positive affect state and can accurately identify alternatives that will improve their affect. However, people in a negative affect state nonetheless refuse to choose those alternatives. It is suggested that this behavior can be attributed to a short-term cost associated with affect-incongruent alternatives. We argue that consumers in a negative affect state avoid positive affect inducing alternatives that they know would improve their affective state ultimately because they anticipate a short-term “aversive transition”.

Imagine the following scenario: after an awful day at work you stop into a store. Immediately upon entering, you are approached by an enthusiastic sales agent who cheerfully greets you and eagerly asks, “Is there anything I can help you with today?” You find the contrast between your negative affect after a bad day and the positive affect expressed by this salesperson so acute that it is aversive. We’ve all had the experience of being bombarded by a salesperson, equally likely however, is the perception that a curmudgeonly friend is choosing to stay in a negative affect state longer than necessary.

### *Study 1: Goal and Belief Hypotheses*

Study 1 examined whether people while in a bad mood had the goal of being in a good mood (goal hypothesis). To test this, people in a negative or neutral mood indicated their preference for being in a positive, neutral or negative mood. Study 1 also examined whether negative mood altered the predictions that people made about the likelihood that a +MIC would improve a negative mood (belief hypothesis). Specifically, did people in a negative mood predict that a +MIC would improve mood better than a non-MIC or a -MIC?

Participants were told that they would be listening to some music and filling out a few ratings scales. Following induction of either a negative or neutral mood, participants made predictions about the effectiveness of positive, neutral or negative newspaper stories, based on the story headline, for improving a negative mood.

First, it was found that consumers in a bad mood would have the goal of improving their bad mood (goal hypothesis). Participants in a bad and neutral mood are equally likely to indicate a preference to

feel happier rather than the same or sadder ( $F(2, 60) = .50; p = .61$ ). Thus, it seems people in a negative affect state want to improve this state.

Second, it was found that consumers in a negative affect state predicted that +MICs would improve their affect (belief hypothesis). Participants in a negative affect state were as likely as consumers in a neutral one to predict that a positive newspaper story would improve a bad mood ( $F(2, 60) = 25.43; p < .001$ ). Thus, it seems that consumers in a negative affect state believe that a +MICs improve affect.

### *Study 2: Accuracy Hypothesis*

Study 1 found that regardless of mood people want to feel good (goal hypothesis) and predicted that +MICs improve a bad mood (belief hypothesis). Study 2 examined whether these predictions were accurate (accuracy hypothesis). That is, do +MICs improve negative mood?

In Study 2, participants listened to a 12-minute segment of negative music and were then assigned randomly to read a positive, neutral, or negative newspaper story. Self-reports of mood were collected before and after the 12 minutes of negative music.

It was found that the belief that a +MIC would improve a bad mood is an accurate one. Participants in a bad mood who read a positive newspaper story reported more improved affect than did participants who read a neutral or negative story ( $F(2, 53) = 10.83; p < .001$ ). Thus, it seems that consumers in a negative affect state were correct in believing that a positive alternative improves negative affect.

### *Study 3: Action Hypothesis*

Studies 1 and 2 established that participants in a bad mood wanted to be in a positive mood (goal hypothesis) and were able to predict accurately that certain alternatives were more effective at improving mood (belief and accuracy hypotheses). Study 3 examined whether people in a bad mood chose +MICs (action hypothesis). That is, when selecting alternatives, did they select one that will improve their negative mood?

The procedure for Study 3 was very similar to that of Studies 1 and 2. Following a negative or neutral mood induction, participants were then given the nine newspaper headlines and asked to make a preference rating for each headline.

It was found that despite a desire to improve their bad mood and an ability to accurately predict the behavior that would improve that affect, consumers decided against it. Participants in a bad mood were less likely to choose to read a positive story than were participants in a neutral affect state ( $t(54) = 2.33; p = .02; r = .30$ ). Thus, it seems that people in a bad mood avoided a +MIC.

-----  
 Insert Table 1 about here  
 -----

In sum, the results of the present research demonstrate that while individuals in a negative mood want to feel better and know what would make

them feel better, they avoid it. Specifically, they know that engaging in a +MIC will make them feel better yet, when given the option of a +MIC, non-MIC, or -MIC, they will avoid a +MIC. Thus, we have a paradox: negative-mood individuals want to feel good and know that +MICs would make them feel good, and yet they avoid them.

For further information contact: Nancy M. Puccinelli's (Upton); Department of Marketing; Sawyer School of Management; Suffolk University; 8 Ashburton Place; Boston, Massachusetts 02108; Tel: 617-994-4249; Fax: 617-973-5382; email: [nupton@suffolk.edu](mailto:nupton@suffolk.edu)

Table 1  
 Participants Choosing a Positive, Neutral, or Negative Story (Study 3)

| Chooser Type | <i>n</i> | Story    |    |         |    |                 |    |
|--------------|----------|----------|----|---------|----|-----------------|----|
|              |          | Positive |    | Neutral |    | <b>Negative</b> |    |
|              |          | no.      | %  | no.     | %  | no.             | %  |
| Negative     | 28       | 6        | 21 | 7       | 25 | 15              | 54 |
| Neutral      | 28       | 13       | 46 | 6       | 21 | 9               | 32 |

### **I Have Enough Friends, I Just Want To Be A Customer: When Communal Company-Consumer Relationships Go Bad**

Jennifer Wiggins Johnson, Kent State University  
Joann Peck, University of Wisconsin-Madison

#### **ABSTRACT**

Company-consumer relationships have been assumed to be governed by exchange norms, in which both parties expect that benefits given by one party obligates the recipient to return a comparable benefit in return (Clark and Mills 1993, p. 684). Aggarwal (2004) found evidence to suggest that consumers can have a relationship with a company that is governed by communal norms. In these relationships, parties give benefits to each other based on need, and the receipt of a benefit does not create a debt. Studies have found that individuals who were in communal interpersonal relationships were more likely to help their partners and less likely to expect that their help would be reciprocated (Clark 1986; Clark and Mills 1979; Clark, Mills, and Corcoran 1989). Similar effects have been found in interorganizational relationships (Heide and Wathne 2006) and in company-consumer relationships (Aggarwal 2004).

Research on communal relationships has assumed that the norms are viewed the same way by both parties in the relationship. However, these studies have employed the same methodology, presenting participants with scenarios to prime communal or exchange norms. This manipulation provides a high degree of experimental control, but its accuracy may be questioned since the scenarios are representing fictional relationships, while in real relationships norms are assumed to develop over time (Dwyer, Schurr, and Oh 1987). This paper uses a different methodology, which draws on participant's own experiences with real company-consumer relationships, to examine whether perceptions of norms are always consistent in company-consumer relationships.

Study 1 was designed to capture the possibility of inconsistent norm perceptions in a communal relationship. We predicted that in exchange relationships, where both parties expect to give and receive equal benefits, the chances of the two parties perceiving inconsistent norms was less likely than in communal relationships. We examined the effects of consistent and inconsistent norm perceptions in communal relationships on the consumer's willingness to help the company, and compared both to a control group of exchange relationships in which perceptions were assumed to be consistent. Each

participant was asked to think of a real company-consumer relationship in his/her life that fit one of two conditions: a relationship in which both parties expect to give and receive equal benefits, or a relationship in which one party expects to give more and the other expects to receive more. Participants were randomly assigned to either the equal benefits or unequal benefits condition. The equal benefits condition represented exchange relationships, and the unequal benefits condition was expected to capture both communal relationships and relationships in which norm perceptions were inconsistent. Participants were asked to write a paragraph describing this relationship and explain why it fits the definition. They were then given a request for help from the company they had just described and asked how likely they were to help.

When the paragraphs written by participants were analyzed, participants in the equal benefits condition appeared to have consistent views of these norms, and described relationships in which equal benefits were exchanged. Approximately half of the participants in the unequal benefits condition described relationships that are consistent with previous manipulations of communal relationship norms. The majority of these relationships involved donating time or money to nonprofit organizations. Participants also described relationships with for-profit companies in which they gave extra brand loyalty or paid price premiums. The other half of the participants in the unequal benefits condition described relationships in which they felt the company was expecting the consumer to give more, but the consumer did not share this expectation. For example, some participants described relationships in which they loyally purchased a company's products, but felt that the company was overcharging them for what the product was worth. This type of relationship can also occur when a consumer feels locked in to a relationship with a particular company. This is not limited to for-profit companies, as some participants described donating time or money to nonprofit organizations that they felt did not sufficiently recognize or appreciate the donations.

The analysis of the main dependent variable willingness to help revealed a significant main effect ( $F(2, 143) = 17.48, p < .001$ ). Consistent with previous findings, participants in the communal

condition were the most willing to help, and were significantly more willing to help than participants in the exchange condition (means of 4.90 and 3.65, respectively,  $F(1, 146) = 16.54, p < .001$ ). Participants in the inconsistent condition, on the other hand, exhibited the lowest willingness to help, significantly lower than those in the communal condition (means of 2.88 and 4.90, respectively,  $F(1, 146) = 29.68, p < .001$ ).

Study 2 explored this effect further by considering where these relationships might differ in the strength of the norms that govern them. A difference in strength of norms may help to explain why consumers may have different expectations for the relationship than companies do. Participants were all placed in the unequal benefits condition using the same methodology as in the first study. Participants' perceived norm strength was measured using a scale developed by the researchers (Details on the development and validation of this scale are available from the first researcher). The analysis revealed that the two groups differed significantly in relationship norm strength (on a scale of 8-56, communal mean = 37.98, inconsistent mean = 28.57,  $F(1, 167) = 32.07, p < .001$ ). A discriminant analysis further confirmed that differences in relationship norm strength maximally separate the two groups ( $X^2 = 29.25, p < .001$ ). This suggests that the distinction between the communal and inconsistent norms is indeed rooted in different levels of norm strength.

This research identified an aspect of relationship norms that was not captured by previous manipulation methods. Consumers can become involved in company-consumer relationships in which they feel are expected to give more than they receive, but they do not share this expectation. This appears to occur when a company expects to receive more from the consumer but has not strongly

established communal norms in the relationship. However, the consumer feels obligated to continue in the relationship. This inconsistency in normative expectations leads to negative responses to company requests for help.

For further information, contact Jennifer Wiggins Johnson, Department of Marketing, Kent State University, P.O. Box 5190, Kent, Ohio, 44242.

#### REFERENCES

- Aggarwal, Pankaj (2004), "The Effects of Brand Relationship Norms on Consumer Attitudes and Behavior," *Journal of Consumer Research*, 31, 87-101.
- Clark, Margaret S. (1986), "Evidence for the Effectiveness of Manipulations of Communal and Exchange Relationships," *Personality and Social Psychology Bulletin*, 12 (4), 414-25.
- Clark, Margaret S. and Judson Mills (1979), "Interpersonal Attraction in Exchange and Communal Relationships," *Journal of Personality and Social Psychology*, 37 (1), 12-24.
- (1993), "The Difference Between Communal and Exchange Relationships: What It Is and Is Not," *Personality and Social Psychology Bulletin*, 19 (6), 684-91.
- Clark, Margaret S., Judson Mills, and David M. Corcoran (1989), "Keeping Track of Needs and Inputs of Friends and Strangers," *Personality and Social Psychology Bulletin*, 15 (4), 533-42.
- Dwyer, F. Robert, Paul H. Schurr, and Sejo Oh (1987), "Developing Buyer-Seller Relationships," *Journal of Marketing*, 51, 11-27.
- Heide, Jan B. and Kenneth H. Wathne (2006), "Friends, Businesspeople, and Relationship Roles: A Conceptual Framework and a Research Agenda," *Journal of Marketing*, 70 (3), 90-103.

**The Benefit Of The Doubt?  
The Role Of Trustworthiness In Different Relationship Frames**

Mirjam A. Tuk, RSM Erasmus University, Rotterdam, the Netherlands  
Peeter W. J. Verlegh, RSM Erasmus University, Rotterdam, the Netherlands  
Ale Smidts, RSM Erasmus University, Rotterdam, the Netherlands  
Daniel H. J. Wigboldus, Radboud University Nijmegen, the Netherlands

**ABSTRACT**

In member-get-member campaigns, a firm's current customers are rewarded (in dollars or gifts) for the recruitment of new members. Such campaigns are an important tool in current marketing practice (Rosen 2000), although they are not undisputed (see Creamer 2005). Member-get-member campaigns are related to "traditional" word-of-mouth referrals, but the use of (financial) rewards turns the "friendly advice" of a fellow customer into something that resembles a sales interaction. Since the distinction between friendship and sales interactions gets blurred within these member-get-member campaigns, they provide an interesting (and practically relevant) setting for studying the role of different relationship frames in consumer behavior. Fiske (1992) argues that all relationships people can have with each other, can be divided in four types. In this research, we specifically focus on differences between equality matching (EM) and market pricing (MP) relationships. In EM relationships, balance is very important. Individuals keep track of favors given and received, and try to maintain a balance in this. EM relationships are common among acquaintances, colleagues, and classmates; in other words, people with whom we usually exchange word-of-mouth recommendations. In MP relationships, people exchange favors in return for an exact amount of this currency (usually money). Examples include employer-employee relationships (in terms of work in exchange for salary), and customer salesperson relationships (the customer pays money and gets a product in return). So, within member-get-member campaigns, a clear MP aspect is brought into the relationship.

Previous research on these relationships shows, among others, that these different relationships influence how much people are willing to pay and to accept for products, and that selling goods is more appropriate within MP relationships than within any of the other relationship frames (McGraw and Tetlock 2005; McGraw, Tetlock and Kristel 2003). This suggests that member-get-member campaigns fit better within MP relationship frames than within EM relationship frames, since the referral is motivated by the underlying financial reward, a proposition that was supported in a previous paper (Authors, 2006).

In the present research, we examine the role of perceived source trustworthiness within EM and MP relationship frames. Recent research suggests that one of the differences between MP and EM is that people have expectations of ulterior motives underlying the behavior within selling (i.e. MP) relationships (Main, Dahl and Darke, 2006), which is not the case within EM relationships. People subsequently judge the source (or agent) in line with these expected ulterior motives, regardless of whether there is any evidence for the existence of real ulterior motives. So, within MP relationships, we expect that perceiving the source of the referral as trustworthy or as untrustworthy, does not have an influence on evaluations of this source, since the expectations of ulterior motives are there anyhow. Within EM relationships, we do expect trustworthiness to influence consumers' evaluations of the source of a referral. More specifically, we expect that trustworthiness is perceived to be indicative of what kind of behaviors to expect. When an agent is perceived as trustworthy, consumers do not expect the agent to have a 'hidden agenda' of ulterior motives. As a result, member-get-member campaigns (where there are ulterior motives driving the behavior) in EM relationships are likely to backfire on consumers' evaluations of agents who are initially perceived as trustworthy. If an interaction partner is perceived to be less trustworthy (or untrustworthy), one will be less disillusioned when it turns out that this person indeed seems to have a hidden agenda and this will subsequently not lead to less favorable agent judgments. So we expect that, in the context of member-get-member campaigns, within EM relationships, a trustworthy source will be evaluated less favorably than an untrustworthy source, whereas within MP relationships, source trustworthiness is not expected to have a lot of impact on source evaluations.

Two experiments confirm these propositions. In both experiments, respondents are presented with a carefully manipulated picture of a person who provides them with a referral. In these pictures, the trustworthiness of the referring customer is manipulated by altering specific features in order to create a more or less trustworthy appearance (see Schul, Mayo and Burnstein 2004; DePaulo et al.

2003) .In the first study, this face is presented together with a scenario that describes the relationship with this person, that is manipulated as either EM or MP. The scenario describes how this person advises a magazine, and states that this person gets paid when the participant actually subscribes. Source evaluations are subsequently measured on a number of items (the agent is “sympathetic”; “friendly”; “credible”; “egoistic”; “annoying”; “irritating” and “pushy”, 1 = totally disagree; 7 = totally agree, negative items were reverse coded). Results show that, as expected, source trustworthiness has a negative effect on evaluations of the source in an EM relationship, and that perceived trustworthiness does not affect source evaluations in an MP relationship. In a second study, we present a similar combination of faces and scenario, but we use a different manipulation of relationship frame. In order to rule out alternative explanations for our findings (see Johar 2005), and to show the strength of the influence of the relationship frames, we unobtrusively activate MP and EM relationship frames by means of a priming procedure. The results of this study replicate the findings of study 1.

These studies show that a higher level of initially perceived trustworthiness can lead to a less favorable evaluation of a persuasion agent. In addition, we find that these adverse effects of trustworthiness occur within an EM relationship frame, but not within an MP relationship frame. The presence of some sort of a financial reward for advice is quite normal and expected within MP relationships. So, source trustworthiness is not very indicative for how likely these kind of behaviors are. After all, these behaviors are always expected within these relationship frames. To summarize, the current studies show that a trustworthy source can have detrimental effects on the evaluations of this source, which critically depends on whether or not the behavior matches with expectations raised by the kind of relationship you have with this source.

For further information contact: Mirjam A. Tuk;  
Room T10-30; Department of Marketing  
Management; RSM Erasmus University, Rotterdam;  
PO Box 1738; 3000 DR, Rotterdam; The Netherlands  
E-mail: [mtuk@rsm.nl](mailto:mtuk@rsm.nl)

## The Influence Of Facial Characteristics On The Interpretation Of Concession Patterns In Marketing Negotiations

Rajesh Bagchi, University of Colorado, Boulder  
Dipankar Chakravarti, University of Colorado, Boulder

### ABSTRACT

Casual empirical observation as well as formal research suggests that looks do matter! Life experiences of good looking people differ from those of average looking people. Attractive females are treated differently than average looking females (Putzer 1985) and facial features of political leaders correlate with their victory margins (Todorov et al. 2005). In other words, faces influence initial impressions and may guide the course of subsequent interactions in social settings. Consumers are also known to use faces to assess the personality, motivations, and traits of salespeople (Ambady et al. 2006).

One might presume that an honest face is a divine endowment that always serves one well in social and commercial interactions. However, there may be boundary conditions on such effects and even in common transactions, honest faces may take us only so far given the configuration of other, available contextual cues. For instance, people with honest faces may be more likely targets of others' deception and salespersons with dishonest faces may conceivably do better. In the present research, we use a common negotiation setting (a car purchase) to explore how an opponent's face may shape expectations of behavior given ambiguity in prior opponent behaviors and opponent concession patterns during a negotiation.

Common consumer transactions such as automobile and real-estate purchases involve negotiations in asymmetric information situations where each side (buyer or seller) must resolve uncertainties and find ways to evaluate the offers they receive. Favorable or unfavorable interpersonal perceptions created through communications and trustworthiness reputations can enhance the economic efficiency of agreements (Srivastava et al. 2000; Srivastava and Chakravarti 2006). Such perceptions may lead to different attributions of opponent behaviors and influence evaluations of offers and counteroffers.

Social neuroscience research suggests that facial characteristics and expressions are often used as cues to the internal mind state and trustworthiness of interaction partners. Although these inferences lose diagnosticity given intent to deceive or conceal (De

Paulo et al. 2003; Russell et al. 2003), research shows that a negotiation opponent's face (honest vs. dishonest) influences the interpretation of strategic delay in negotiations, conditional on prior behavioral cues (positive or negative - whether hearsay or actually experienced). Thus, using calibrated (honest/dishonest) front face pictures, Bagchi and Chakravarti (2006) found that face affects perceptions of the strategic use of delay. With negative prior behaviors, face was non-diagnostic in predicting negotiation outcomes. However, with positive prior behavior, a dishonest-faced (vs. an honest-faced) salesperson was perceived as using delay more strategically.

The present research explores how faces (previously calibrated as honest versus dishonest) affect the interpretation of different patterns of price concessions in the presence of prior behavioral cues (positive or negative). These concession patterns (convex - soft/hard or concave - hard/soft) are inherently ambiguous and may be amenable to multiple interpretations. Small initial concessions followed by a large concession (a hard/soft, concave pattern) may indicate a rock bottom offer, or alternatively, signal even larger concessions to follow. Large initial concessions followed by more moderate concessions (a soft/hard, convex pattern) may signal a good deal or simply a ruse to convey that no further concessions are likely. Which interpretation is adopted may influence assessments of opponent motivations and traits and alter expectations of bargaining outcomes.

The literature generally asserts that facial cues often dominate inferences about experienced emotion (e.g. Tomkins, 1962; Nakamura et al. 1990). However, the use of facial cues may depend on the diagnosticity of other available cues (Carroll and Russell 1996). If these are diagnostic, face may not be perceived as relevant. If the other cues are non-diagnostic or suggest conflicting inferences, face may play a cueing role. Therefore, facial cues, prior behavior cues and concession patterns may have contingent (interactive) effects on interpretations of negotiation processes and outcomes. Prior negative behaviors may be more diagnostic and may render face redundant, whereas prior positive behaviors may still leave room for doubt and therefore may elicit face effects. Hence, focusing only on the contingent

effects of face, behavior and concession pattern in this discussion (for brevity's sake), we argue that with negative prior behavior, face will be non-diagnostic irrespective of the concession pattern. With positive prior behavior, however, concave concession pattern will provide conflicting signals regarding the likelihood of strategic behavior and therefore, face will be diagnostic. Furthermore, an honest face will elicit a higher anticipated counteroffer than a dishonest face. The convex pattern reinforces the likelihood that behavior is not strategic and hence face will not be diagnostic.

We tested our hypotheses in an experiment. The study involved a paper-pencil task set on the context of a negotiated automobile purchase. It used a 2 (Prior Behavior: Positive vs. Negative) x 2 (Face: Honest vs. Dishonest) x 2 (Concession Pattern: Concave vs. Convex) full factorial between-participants design. The participants were 135 undergraduates randomly assigned to one of the eight study conditions. Subjects first rated a picture of the focal car (a 2000 Ford Focus ZX3) on its reliability, size, style, comfort, and economy. The salesperson's prior behavior was manipulated by describing a close friend's past experience with the salesperson "Brad" at the dealership. In the positive behavior condition, Brad's behavior was described as courteous and helpful. In the negative behavior condition, the behavior was depicted as curt and rude. Next, participants were shown Brad's picture. Two expressionless full-frontal pictures of different faces were selected following a pretest calibrating them as being either honest or dishonest from an inventory of facial shots (Peer 2004; Solina et al. 2003; Stegmann et al. 2003). Pre-trust ratings were then obtained from the participants.

The scenario then described the on-going negotiation between Brad and the customer where both went back and forth for several rounds making offers and counteroffers. The pattern of Brad's offers differed across conditions. In the concave case, Brad's initial concession was small but the later concession was large whereas, in the convex case, Brad's initial concession was large, but the later

concession was smaller. The customer's offers were the same across these conditions. Participants were then asked to indicate the counteroffer that they expected Brad to make in response to their final offer. Several other measures captured their evaluations of the salesperson's traits, the salesperson's motivations, and future purchase intentions. We focus here on the findings related to the anticipated counteroffer.

An ANOVA was run with anticipated counteroffer as the dependent variable as a function of the prior behavior, face, and concession pattern factors. The overall omnibus model was significant and we also found several predicted main effects and interactive effects. As predicted, a significant three-way interaction of face, behavior and concession pattern showed that for positive prior behavior, the honest face elicited a higher anticipated counteroffer for the concave (but not for the convex) concession pattern. With negative prior behavior, however, face did not affect the anticipated counteroffer.

In summary this paper reports a study exploring how faces (honest vs. dishonest) affect the interpretation of different price concession patterns (convex: soft/hard, and concave: hard/soft) given prior behavioral cues (positive/negative). The results suggest that faces can play a major role in consumer decisions that are based on interpersonal interactions. Thus, an opponent's facial characteristics may play a diagnostic role in interpreting concession patterns in negotiations. The effects are contingent and appear when other contextual cues (e.g., concession patterns and prior behavioral cues) provide conflicting signals about the likelihood of strategic behavior by the opponent. With negative prior behavior, face does not affect inferences. With positive prior behavior, a concave concession pattern appears to receive the benefit if the face is honest. Currently we are investigating the mental processes that mediate such inference making (trust being one such variable). The results suggest the promise of further research on how facial characteristics and emotion expressions influence negotiations and other interpersonal communication and persuasion episodes.



**Multiple-Stage Decision Processes: Cognitive and Motivational Effects on Consumer Choice**

Session Chair: Michal Maimaran (Stanford University)  
Session Discussant: Alexander Chernev (Northwestern University)

**ABSTRACT**

Research in judgment and decision making has largely focused on one-stage decision processes, giving less attention to the effects of having multiple stages in decision making. Recent research suggests that consumer decisions involving multiple stages are prevalent and a fruitful area for investigation (e.g., Sood, Rottenstreich & Brenner 2004; Muthukrishnan & Wathieu forthcoming); further, decomposing decision processes into multiple stages can help gain insights into the manner in which consumers form preferences and explain various choice paradoxes, such as the co-occurrence of preference for large assortments and decreased confidence in choices made from these large sets (Chernev 2006). This session presents three new research efforts that show that multi-stage decision processes lead to systematically different decisions compared to their single-stage counterparts, by focusing on their effects on consumer motivation and cognition.

The first paper, by Maimaran and Simonson, shows that when consumers first choose their choice category, they are more likely to make 'bold' decisions within this category, such as choosing unique over common options, extremes over compromises, vices over virtues, high-cost over low-cost options, mixed-value over all-average options, and risky over sure outcomes. They propose that choosing first a category motivates consumers to make choices that represent boldness and freedom of expression compared to default, mediocre choices.

The second paper, by Chakravarti, Fishbach, Janiszewski, and Ülkmén, shows that screening alternatives leads to licensing effects, such that consumers are more likely to choose vices over virtues after first short-listing the alternatives. They propose this effect occurs because consumers tend to ignore the health information used in the screening stage, and base their (second-stage) decision on the taste dimension which was not attended to in the first stage.

In the third paper, Liu proposes that when consumers are interrupted during the decision process there is a change in the manner in which they process the attributes, leading consumers to focus more on the desirability of the options at the expense of their feasibility, and prefer options that are high on desirability dimensions. She finds this effect when

comparing quality and price dimensions as well as probability and payoffs in financial decisions.

**The Effect of Choosing to Make a Choice on Consumers' Choices: The Making of Bold Decisions**

Michal Maimaran (Stanford University)  
Itamar Simonson (Stanford University)

Individuals often choose the decisions they wish to make, such as whether to shop in an upscale store or in a lower-end store and whether to see a play or instead go to a restaurant. We examine whether the mere act of choosing to make a decision in a certain category affects the subsequent choices made from the selected category. In several studies we find that when choosing in their chosen category, consumers are more likely to make 'bold' decisions which may be considered as non-default or unconventional (Simonson & Nowlis 2000; Simonson, Kramer, & Young 2004). These findings are consistent with the notion that choosing the choice arenas promotes selections of options that represent boldness and freedom of expression over options that represent defaults and mediocrity. Specifically, we propose that individuals might be seen as having two decision selves: a more 'bold' self who is likely to make unconventional choices and a more 'timid' self who is more likely to choose default options. The context in which choices are made is likely to affect which self is more pronounced and thus, which choices will be made eventually. In addition to choosing which choices to make (i.e., choosing a choice category), we test other manipulations that stimulate self expression, such as writing about the self; we find a similar effect on choice, namely an increase in the tendency to make 'bold' decisions.

In our studies we vary whether or not participants first choose in which category they want to make a choice (e.g., among flashlights or among BBQ grills); we then compare the choices made within the selected categories with the choices from the same categories in a control group. In the first study we find that participants who first chose a category are more likely to choose extreme options over compromise options. In a second study we find that when choosing in their chosen category, participants are more likely to choose (a) unique over common options, (b) vices over virtues, (c) high-cost over

low-cost options, (d) risky over sure outcomes, and (e) mixed-value over all-average options. This effect holds when controlling for product knowledge and expertise. In a third study we directly manipulate self-expression by having some of the subjects first describe themselves before making choices. We find that compared to control condition, those who first expressed themselves were again more likely to choose extreme options over compromise options.

Taken together, these studies imply for a possible connection between having a prior opportunity to express the self and the making of bold decisions. In addition to gaining more insights as to the process through which this effect occurs, in future studies we examine boundary conditions and test whether there are forms of self expression that may promote the 'timid' self and discourage subsequent self-expressive choices.

#### **The Licensing Effect of Two-Stage Decisions on Choices between Virtues and Vices**

Amitav Chakravarti (New York University)  
Ayelet Fishbach (University of Chicago)  
Chris Janiszewski (University of Florida)  
Gülden Ülkümen (New York University)

When faced with a decision between several alternatives, a consumer may make her choice in two, equivalent ways. She may simply choose in a single stage, the option she likes the most. Alternatively, she may make her choice in two stages, first shortlisting the options she would consider more seriously, and then choosing the option she likes the most from that shortlist. Normatively, these two decision modes should not differ in terms of their outcomes. However, across several experiments we find that whether the *same* decision is executed in a single stage or in multiple stages, has a significant impact on consumer choices between relative virtues and relative vices. Specifically, we find that in two-stage decisions there is a "licensing" effect of screening on final choice. In other words, including virtues in the consideration set licenses decision makers to more freely choose vices. As a result, people who screen and then make a choice are more likely to consume vices than those who do not screen prior to choice.

In study 1 we ask participants to choose a snack from a set of granola bars and ice creams. In the *choice group*, participants simply picked a snack of their choice. In the *screening group*, participants first shortlisted four snacks and then chose a snack from that shortlist. While virtues and vices were consumed roughly equally in the choice group (Granola Bars =

51%, Ice cream = 49%), more vices than virtues were consumed in the screening group (Granola Bars = 30%, Ice cream = 70%). In the screening group we also find that there is a negative correlation between the "healthiness" of the consideration set (i.e., the number of granola bars vs. ice creams included in the consideration set) and the "healthiness" of the final choice. In other words, including a greater number of relatively healthy options in the consideration set, increased the likelihood of consuming a relatively less healthy option at the final choice stage. This last piece of result, suggests the possibility of a "licensing" effect in consideration set formation.

In study 2 we replicated this effect using different primes (health, taste, and neutral primes) and different replicates. Again, we find that the act of forming a consideration set leads to greater consumption of vices in comparison to straight choice decisions that do not involve forming a consideration set. Note however, we find this effect only in the neutral prime conditions. In the health prime condition, for example, we find consistency effects, i.e., decision makers continue to choose relatively healthier options at both the consideration and final choice stage. This suggests that for this licensing effect to occur, decision makers need to actively use the health dimension in creating their consideration sets. Priming health subtly, in a manner that is outside of participants' conscious awareness, does not create the licensing effect that we observed in study 1 and in the neutral prime conditions of study 2. This logic also appears to be consistent with another piece of analysis that we conducted - it appears that the licensing effect is more likely to occur among participants who are relatively more health conscious. It is quite plausible that health conscious participants are more likely to actively use health information in making their shortlist. If this is true then it supports our assertion that an active consideration of the health information is a prerequisite for this effect to occur.

While a licensing effect is consistent with the data we observe, at this point of time we acknowledge the presence of other candidate process explanations. For example, it is possible that allowing decision makers to form a consideration set dissipates the conflict that the person feels while choosing between virtues and vices. This conflict dissipation can, in turn, generate positive affect leading to more affect consistent choices (i.e., relative vice). We are currently investigating this and other potential process explanations for the effects that we observe.

In summary, however, it is clear that this effect

occurs because decision makers tend to “ignore” the information that was used earlier during screening (e.g., health), and use different information (e.g., taste) to make their final choices. Additionally, the degree to which participants think they have “used” a criterion in the screening stage, also influences their likelihood of abandoning that criterion in the final choice stage (study 3).

### **The Effect of Decision Interruption and Suspension on Preferences**

Wendy Liu (UCLA)

In everyday life, decisions are often made in multiple stages due to interruptions or suspensions. For example, a multitasking manager may be juggling several issues on the same work day, and may have to switch between different decisions. Similarly, a consumer may be considering a purchase, but may be sidetracked for a while by other interests. An interesting question is therefore, what is the effect of such interruptions on preferences?

In this research, I propose that an interruption can change the manner of information processing in decision making. Specifically, I contrast two modes of information processing, namely, bottom-up data-driven processing versus top-down goal-directed processing, and argue that when a decision is considered for the first time, the attributes of options

are processed under bottom-up mode such that people attend to all aspects of the stimuli. However, an interruption stops this processing, and when the decision resumes, the processing of the problem switches from bottom-up mode to top-down mode in which one’s attention is guided by goals (desired end states). Consequently, upon a “revisit” to the problem, people (unintentionally) become more focused on attributes more central to their goals. In particular, the desirability of an option is more central one’s goal than the feasibility of the option (Troepe and Liberman 2003); thus a two-stage process due to interruption may shift people’s preferences towards emphasizing desirability over feasibility. Four studies support this hypothesis. S1 showed that in choosing a restaurant, after interruption people gave greater weight to quality of food (desirability) than cleanliness (feasibility); S2 found that in financial decisions interruptions lead to more choice of high risk options; S3 showed that in price-quality tradeoffs, consistent with a goal-driven process, interruption increased purchase of high-price options and decreased price sensitivity; however, S4 demonstrates that the greater preference for high-price options occurs only when the quality advantage is on a desirable rather than feasible dimension.

For further information contact: Michal Maimaran;  
Graduate School of Business, Stanford University;  
518 Memorial Way, Stanford, CA 94305-5014 ;  
maimaran@stanford.edu

## Understanding the Contextual Effects of Advertising Values in Activating Self-Construals: Moderator and Underlying Processes

Jing Zhang, University of Wisconsin-Milwaukee

### ABSTRACT

This project studied the contextual effects of individualistic (IND) vs. collectivistic (COL) ads on the temporary accessibility of self-construals in the U.S. Study 1 showed that participants' salient self-construals were jointly influenced by their chronically accessible IND cultural orientations and the type of ads they were exposed to. That is, after being exposed to a set of IND ads, high individualists responded with more independent self-construals whereas low individualists responded with less independent self-construals, compared to after being exposed to a set of COL ads. This suggests that a particular self-construal becomes more salient when it is chronically encouraged and at the same time reinforced by the situational cues. Moreover, because self-construal has been found to explain or account for persuasion effect (Wang, Bristol, Mowen, & Chakraborty, 2000), this finding lends support to the mediating role of salient self-construal in the persuasiveness of promotion- vs. prevent-focused messages (Aaker & Lee, 2001; Lee, Aaker, & Gardner, 2000).

As expected, high and low individualists had their own ways of perceiving and using the contextual cues, the ads. After an exposure to IND ads, both could have compared their own value orientations with the value manifested in ads. High individualists found the IND ad values more similar, self-relevant, whereas low individualists found them less similar, not self-relevant. These different comparison results are believed to determine what kind of self knowledge is salient in mind. As shown in Study 1, participants high in individualism tended to generate more context-congruent self knowledge (assimilation), whereas participants low in individualism tended to generate less context-congruent self knowledge (contrast). This discussion implies that the level of chronic individualism may present or facilitate two different conditions, under which similarity or dissimilarity comparison of the context with one's cultural orientation takes place. As a result, a similarity comparison (more likely happening among high individualists) may account for the assimilative ad-activating-self effect, whereas a dissimilarity comparison (more likely happening among low individualists) may account for the contrastive effect.

To test the speculation on the comparison processes under context effects, the similarity and dissimilarity testing as in Mussweiler's (2003) model was procedurally introduced in Study 2. Specifically, the similarity and dissimilarity testing was manipulated by ad headlines that highlighted either similarities or differences (Häfner, 2004). Our results showed that, reading headlines subtly pointing to similarities (dissimilarities) made participants engage in similarity (dissimilarity) testing between their cultural orientations and the ad value. As a result, they tended to look for the value information that was congruent (incongruent) with the ad value in context. When the ad value was IND, an increase (a decrease) in the accessibility of IND cultural knowledge was more likely to occur. Participants therefore responded with more (less) independent self-construals compared to when they were exposed to COL ads. Hence, similarity (dissimilarity) testing led to assimilative (contrastive) self-construal responses to ads.

This project was designed to unpack the underlying processes of the assimilation and contrast effects in the advertising context. Our findings demonstrated that, the level of the chronically accessible individualism moderated the effect of ad values in activating salient self-construals: assimilation effect among high individualists and contrast effect among low individualists. Further, this result was explained with Mussweiler's (2003) selective accessibility model. Specifically, similarity testing, i.e., participants comparing their cultural orientations with individualism manifested in ads and feeling similar in the value orientation, accounted for the assimilation effect. In contrast, dissimilarity testing, i.e., participants comparing their cultural orientations with individualism manifested in ads and feeling different in the value orientation, accounted for the contrast effect. This explanation was supported by Study 2, in which similarity vs. dissimilarity testing was procedurally manipulated by using ad headlines. Future studies should closely examine how similarity vs. dissimilarity testing may interact with the chronic cultural orientation to influence the contextual effects.

### REFERENCES

- Aaker, J. L., & Lee, A. Y. (2001). "I" seek pleasure and "we" avoid pains: The role of self-regulatory

- goals in information processing and persuasion. *Journal of Consumer Research*, 28, 33-49.
- Bargh, J.A., Bond, R. N., Lombardi, W.J., & Tota, M.E. (1986). The additive nature of chronic and temporary sources of construct accessibility. *Journal of Personality and Social Psychology*, 50, 869-878.
- Häfner, M. (2004). How dissimilar others may still resemble the self: Assimilation and contrast after social comparison. *Journal of Consumer Psychology*, 14, 187-196.
- Lee, A.Y., Aaker, J.L., & Gardner, W.L. (2000). The pleasures and pains of distinct self-construals: The role of interdependence in regulatory focus. *Journal of Personality and Social Psychology*, 78, 1122-1134.
- Mussweiler, T. (2003). Comparison processes in social judgment: Mechanisms and consequences. *Psychological Review*, 110(3), 472-489.
- Wang, C. L., Bristol, T., Mowen, J. C., & Chakraborty, G. (2000). Alternative modes of self-construal: Dimensions of connectedness-separateness and advertising appeals to the cultural and gender-specific self. *Journal of Consumer Psychology*, 9, 107-115.

For further information, contact: Jing Zhang, Assistant Professor, University of Wisconsin-Milwaukee, Department of Journalism and Mass Communication, 2522 E. Hartford Avenue, 117 Johnston Hall, Milwaukee, WI 53211; [jingz@uwm.edu](mailto:jingz@uwm.edu).

## The Effects Of Providing On-Pack Discount Information On Consumers' Price Perceptions

Devon DeVecchio, Miami University  
H. Shanker Krishnan, Indiana University

### ABSTRACT

Price-based incentives represent almost 65% of consumer promotion activity (Santella and Associates 2001). Although price promotions increase choice, manufacturers may fear that perceptions of lower prices will negatively affect choice when the product is no longer promoted (Lattin and Bucklin 1989; Winer 1986). We consider how a discount's location will affect price perceptions a) at the time of the promotion and b) when consumers return to shop (i.e., after a delay).

Experiment 1: Discount Location and Price Perceptions. While on-shelf discounts are typically conveyed along with regular price information, on-pack discount information is separate from base price information on shelf tags. An important aspect of the separation of regular price and discount information is that either piece of information may not allow the final price to be discerned (i.e., knowing that a product is discounted by 25% does not inform a consumer of the price). The proximity-compatibility principle holds that proximity makes objects easier to integrate (Barnett and Wickens 1988; Carswell and Wickens 1987). Spatial proximity (i.e., placing discount and regular price information together) should lead to more accurate price perceptions. More specifically, price perceptions should be lower when conveyed on-shelf (i.e., with regular price information) as they are less likely to be contaminated by the higher regular price when integration of price information is inaccurate.

Price perceptions will also be affected by discount framing. A revised price frame (e.g., "now \$2.10") should lead to highly accurate price perceptions. When discounts need to be integrated with base prices (i.e., when framed in cent-off or percentage-off terms), the benefit of spatial proximity should be greatest when the integration task is most difficult (Navone and Gopher 1979). Since a percentage-off discount frame offers more complexity than a cents-off frame it should benefit more from an on-shelf location in terms of the accuracy of price perceptions. In turn, greater accuracy should be associated with lower perceived prices.

Experiment 1, employed 126 college students and a 2 (discount location – on pack, on shelf) x 3 (discount frame -- percentage-off, cents-off, revised price) between subjects factorial design. Stimuli

consisted of a simulated store shelves displaying three brands of shampoo. While viewing the simulated shelf via computer, participants indicated the brand that they would choose. Next, participants advanced to a computer screen that displayed the brand packages without any price/discount information and indicated what they believed to be the price for the focal shampoo brand (Ion) after accounting for any discount (see e.g., Morwitz, Greenleaf, and Johnson (1998)).

The discount (off of \$3.39) was framed as revised price ("Now \$2.44"), percentage-off ("Save 28%"), or cents-off ("Save 95¢"). Discount location was manipulated by having the discount either accompany the regular price on a shelf tag below the product or be communicated via a sticker on the product package.

Mean price perceptions were greater in the on-package condition (mean = \$2.70) than in the on-shelf condition (mean = \$2.59,  $F_{1,125} = 4.90$ ,  $p < .05$ ). Price perceptions also differed across frames ( $F_{2,125} = 9.74$ ,  $p < .01$ ) as they were lower for a revised price promotion (mean = \$2.48) than a cents-off promotion (mean = \$2.68,  $t = 2.80$ ,  $p < .05$ ). Price perceptions did not differ significantly for the cents-off and percentage-off frames (mean = \$2.79,  $t = 1.47$ ,  $p > .10$ ). There is a frame by location interaction in which there is a larger difference between frame conditions in the on-pack condition than in the on-shelf condition (cross-frame differences of 47 cents vs. 15 cents; interaction  $F_{2,125} = 2.65$ ,  $p = .075$ ). Specifically, when on-shelf, price perceptions were \$2.64, \$2.62, \$2.49 for the percentage-off, cents-off, and revised price frames respectively. Price perceptions were \$2.95, \$2.71, and \$2.47 for these frames when on-pack.

Experiment 2: Discount Location and Recalled Price Perceptions. To the extent that lower price perceptions are retained, promotions may also affect choice after the promotion is removed (e.g., Chang, Siddarth, and Weinberg 1999). A unique aspect of on-pack promotions is that consumers' exposure to them extends beyond the time of product purchase. Since memory for an object is bolstered when memory cues are provided (Tulving and Thomson 1973), price perceptions should be more persistent when formed in response to an on-pack promotion. If consumers are uncertain of the previously perceived

price (more likely for an on-shelf promotion), the regular price will bias the recalled price upwards. Therefore, on-pack discounts should be associated with price perceptions that are lower following a delay between price exposures.

Experiment 2 participants (135 college students) chose from the same choice set used in Experiment 1 at two different experimental sessions either two (short inter-purchase time) or seven (long inter-purchase time) days apart. In the first choice period, the focal brand of shampoo (Ion) was again discounted by 28% to \$2.44. As participants exited, each received a bottle of the focal brand of shampoo which they were asked to use in the time between experimental sessions. The shampoo given to participants in the on-pack condition had a yellow discount sticker attached to the bottle. In session two, participants selected from the same set of three shampoo brands. Each brand was offered at its “regular” price (\$3.39 for the focal brand). After selecting a brand, participants indicated what they

believe to be the price for Ion (after accounting for the discount) during the first shopping trip.

The recalled price was higher when the discount was not on-pack (\$3.03) than when it was on-pack (\$2.81,  $F_{1,134} = 7.23$ ,  $p < .01$ ). A main effect of inter-purchase time does not emerge ( $F_{1,134} = 0.02$ ,  $p > .40$ ). The interaction between discount location and inter-purchase time is significant ( $F_{1,134} = 3.97$ ,  $p < .05$ ). Consistent with expectations, when a promotion is not on-pack, recalled prices are higher in the case of a long inter-purchase time (\$3.09) than a short inter-purchase time (\$2.95). This pattern reverses in the case of an on-pack promotion as the recalled price was lower for a long inter-purchase time (\$2.73) than a short one (\$2.90).

For further information contact: Devon DelVecchio, Assistant Professor of Marketing, 206A Upham Hall, Richard T. Farmer School of Business, Miami University, Oxford, OH 45056 (delvecds@muohio.edu or 513-529-9364).

**Behavioral Mimicry And Persuasion: Increased Attitude Change And Perceived Persuasiveness**

Gunter F. Wessels, University of Arizona

**ABSTRACT**

This study investigated a hypothesized link between behavioral mimicry and persuasion. I conducted a laboratory experiment with a two-by-two, between-subjects factorial design. Results supported that targets did not notice when persuaders mimicked them. Furthermore, a positive bias in message processing was stimulated in targets, resulting in increased attitude change.

**INTRODUCTION**

The purpose of this study is to investigate a hypothesized link between non-conscious processes and conscious processes at play in persuasion. Anecdotal data gathered from persuasion agents (professional salespeople) have shown that some salespeople believe that if they mimic a customer, that customer will be more persuaded to buy.

There is, however, little scientific evidence supporting the existence of, and mechanism responsible for, a positive impact of mimicry on persuasion. Outside of persuasion contexts, behavioral mimicry (behavioral matching) has been examined yielding some interesting findings. Studies have shown that behavioral mimicry is associated with increases in judged liking (Chartrand and Bargh 1999) and satisfaction with an interaction (Locke and Horowitz 1990). In the following section I describe aspects of this precedent research that relate to the present study. Then I will describe how this study was designed, followed by a description of the research methods used and results. Finally I discuss initial implications of the study results.

**BACKGROUND**

Behavioral (motor) mimicry has a long history, with past investigations (Allport 1968) renewed by present interest in the fields of social psychology (Chartrand and Bargh 1999) and marketing (Dijksterhuis et al. 2005). Mimicry has predominantly been investigated as a non-conscious process. The seminal work in this stream is the "chameleon effect," which is defined as non-conscious mimicry of the postures, mannerisms, facial expressions, and behaviors of others. This group of behaviors serves to blend people in with their social environment, and has been shown to have effects of interaction smoothing and increased liking between strangers (Chartrand and Bargh 1999).

Subsequent research on the chameleon effect has, however, led to some differing results. Studies generally support a perception-behavior connection operating on a non-conscious level. Some findings suggest that mimicry's relationship to perception is bi-directional (Lakin et al. 2003), while others have shown a unidirectional relationship (van Baaren et al. 2003). Scholars are also still determining the roles of primed means and goals (Janiszewski and van Osselaer 2005), and the role of context on information and choice (Dijksterhuis et al. 2005).

In general, scholars have found that behavioral mimicry can positively influence people's behavior, stimulating pro-social behavior (van Baaren et al. 2003), and that rudimentary movement mimicry can cause even non-human persuasion agents (computer simulations) to be more persuasive (Bailenson and Yee 2005). Chartrand and Bargh (1999) have shown that the chameleon effect can increase not only increase liking between strangers, but mimicry can also enhance the perceived smoothness of interactions. Taken together, these findings suggest the potential for mimicry to have an influence on persuasion, potentially inducing biased argument processing.

**HYPOTHESES**

This study investigated the impact of a non-conscious process (behavioral mimicry) on the operation of a conscious process: attitude change within the central route of the Elaboration Likelihood Model (Petty and Cacioppo 1984). Naïve theories suggest that mimicry biases processing toward the persuader. Previous investigations of mimicry found that it is associated with increased liking and smoothness of interaction (Chartrand and Bargh 1999). Therefore, an effect of mimicry on effortful processing should also be mediated by liking and judged smoothness of interaction. Additionally, the liking of a persuader has been shown to bias information processing toward the message source under certain conditions (Roskos-Ewoldsen et al. 2002). However, the Roskos-Ewoldsen et al. study found that people who were presented with weaker arguments, and liked the message source (person), were more critical of the argument and therefore were less persuaded. Hence, while liking is a predictable source of biased information processing, this interaction is not monotonically positive. Instead, liking amplifies the persuasiveness of strong arguments and diminishes the effectiveness of



weaker arguments. Figure 1 is a general theoretical model that illustrates the relationships between constructs investigated in this study.

-----  
 Insert Figure 1 Approximately Here  
 -----

Other studies have reported findings where mimicry causes effects similar to liking, such as social rapport building (Lakin et al. 2003; Tiedens and Fragale 2003; van Baaren et al. 2004a). This leads me to my first hypothesis:

**H1a:** When a persuader mimics a target of persuasion, this action will increase liking of the persuader by the target of persuasion.

Additionally, since this study tests the impact of a non-conscious process on a conscious process, it is necessary to demonstrate that mimicry will not be detected by participants in the interaction. As a tactic employed by a persuader, engaging in the mimicry of a target is a conscious process for the persuader. The action of mimicry, however, is described as a non-conscious process within the target of persuasion, and, therefore, mimicry will not be detected. Therefore, liking should be greater in conditions where participants were mimicked, but this liking will not be attributed to the behavior of the experimenter. This leads to the following hypothesis:

**H1b:** Mimicry behavior will not be detected by the participant.

While H1a predicts that mimicry will stimulate liking, the second finding (judged smoothness of interaction) in Chartrand and Bargh (1999) holds the key effect I anticipated would account for increased persuasion. I expected that smoothness of interaction would lead to an implicit similarity judgment. This judgment, however, would not be directly tested as it is hypothesized to be implicit. Testing a judgment of similarity might be necessary in future studies, but I prefer not to directly test it in this case, because doing so may contaminate the process. Studies have shown that attitude measurement can cause attitude change (Feldman and Lynch 1988), and in this case measuring perceived similarity could create the effect I am attempting to stimulate. Rather than testing for judged similarity directly, I attempted to infer the presence of similarity by measuring demographic characteristics of participants as a primary proxy for similarity.

The proposed process of mimicry's effect on persuasion is built on priming a sense of cohesiveness between the participant and the

persuader. Therefore, mimicry should be more effective among individuals who share more basic traits. Initially these traits will be limited to measures of gender and ethnicity. If mimicry primes similarity, such similarity could bias information processing toward the source, which, due to similarity, seems more acceptable. Rationale for this hypothesis is largely supported by recent findings extending Chartrand and Bargh's (1999) work into the domain of persuasion e.g. (Bailenson and Yee 2005) and information processing about product liking (Howard and Gengler 2001) as well as pro-social behavior stimulation (van Baaren et al. 2004a). This leads me to the next hypothesis:

**H2a:** Mimicry by a persuader is positively associated with positive bias in the evaluation of an argument by the target of persuasion.

This hypothesis can be further explored as follows:

**H2b:** This effect will be greater if the target and persuader are the same gender.

To expand upon the proposed mechanism of mimicry's action on persuasion, further predictions were warranted. I hypothesized that the above biased processing would be evident when a target is mimicked. This means that measures of the contents of argument consideration (thoughts) must be taken. The nature of biased processing is hypothesized to be toward the persuader, i.e. counter attitudinal. Therefore I expected to find that in the thought listing, participants recall, 1. fewer numbers of negative thoughts, and 2. greater numbers of thoughts in general. Furthermore, biased processing evidence is provided by the ratio of negative thoughts to total thoughts that I expect to be reduced when participants are mimicked. Also, the ratio of positive thoughts to total thoughts would be expected to be greater under conditions of biased elaboration. These parallel effects should mediate the process of attitude change. The following hypothesis, therefore, articulates the proposed deeper mechanism, namely the mediation of biased processing for the above hypothesized main effect:

**H3a:** Mimicry induced biased processing of the argument will mediate attitude change.

Also, there are some elements described above that add precision to the prediction, to expand the understanding of how mimicry affects biased processing. They are as follows:

**H3b:** Mimicry will be associated with greater elaboration of positive (counter-attitudinal) message components in arguments.

**H3c:** Mimicry will be associated with lesser elaboration on negative (pro-attitudinal) message components in the argument.

I also hypothesized that perceiving the presenter as persuasive would mediate attitude change. It is, however, not entirely necessary that a person should find the presenter persuasive for attitude change to occur. The argument could be perceived as cogent, while the presenter could be perceived as unconvincing, despite a good argument. This could cause attitude change without presenter persuasiveness. Therefore, any effect should be most pronounced in conditions where weak arguments are presented. In these cases, the persuasiveness of the presenter has a greater potential impact. As a result, I proposed that partial mediation of perceived persuasiveness would affect the overall effect of mimicry on attitude change. This leads me to the following hypothesis:

**H4a:** Mimicry will be associated with greater perception of the persuasiveness of the presenter.

**H4b:** This perception will mediate attitude change.

For the present study, I have hypothesized that mimicry induces biased elaboration; and that increased thoughts about the argument are biased toward the agent. This biased elaboration could be due in large part to the pro-social activation, as shown by van Baaren, Holland et.al (2004). In this study I held source credibility constant, at high. The specific process by which personal relevance is elevated in this study is described in the methods section. Furthermore, it is logical that pro-social activation on a non-conscious level by mimicry will be associated with biased processing of an argument. Increased persuasion will be detected by an array of dependent measures described in the methods section. This leads to the fifth hypothesis:

**H5:** Mimicking a target results in greater attitude change in the target of persuasion.

Any effect brings with it natural boundaries that can be foreseen based on the literature reviewed above. Some of these include a limit to pro-social activation in all conditions. One such foreseeable effect has to do with weak arguments. It has been found in other studies that weak arguments can have an adverse effect on persuasion (Petty and Cacioppo

1984), which I hypothesize will be partially overcome by positively biased processing under mimicry. Previous investigations of persuasion processes have found a main effect for argument strength, i.e. strong arguments are more persuasive, and in this study I expect similar results. Therefore, I offer the following hypothesis to test the boundary conditions of mimicry's action in persuasion attempts;

**H6:** The effect of mimicry on persuasion will be reduced when weak arguments are presented.

In the next section I will discuss the methods used in this proposed study to determine support for these hypotheses.

## METHODS

I conducted a laboratory experiment with a two-by-two between-subjects factorial design. The first factor was the presence or absence of mimicry. When mimicry was present, participants' casual physical behavior was copied by the experimenter during a filler task where personal relevance was held constant at high. Next, participants evaluated a persuasive argument for the adoption of senior comprehensive exams. The argument was delivered verbally to participants in two conditions: a strong argument and a weak argument. Following the verbal delivery of the argument, attitude measures were taken and participants completed a thought listing task.

## SUBJECTS

In Study 1, 90 subjects participated for partial course credit. Approximately one half of the participants were female, and all were either junior or senior undergraduates.

## PROCEDURE

The participants were brought into the laboratory individually and randomly assigned to a condition. At the beginning of the experiment, participants were told that they were there to perform in two tasks. This first task was a survey of attractiveness ratings of spokespersons in advertising. This task was called the "advertising spokesperson attractiveness rating task" and was a filler task. While the participants completed the rating task, the experimenter mimicked (or not) the mannerisms, posture and body movements of the participant. The repertoire of mimicking behaviors included the following: face rubbing, foot tapping, arm and/or leg crossing, as well as general posture and arm movements. After this exercise all of the participants rated their interaction with the experimenter.

Persuasion stimulus materials were in the form of a script the experimenter used to deliver the verbal argument for the adoption of senior comprehensive exams. There were two conditions of argument strength to which participants were randomly assigned. Following the evaluation of the argument and a subsequent thought listing, participants completed a “funneled” question sequence (from general to increasing specific questions about awareness of hypotheses). The funneled debrief questions determined if the participant, a) was suspicious that the experimenter was present in both studies, b) noticed that the experimenter displayed certain mannerisms throughout the session, c) thought that the purpose of the experiment was anything other than the cover story presented.

After completing the final questionnaire (the funneled debrief), participants were debriefed. During the debriefing, the hypotheses and purpose of the experiment were explained to the participants and they were asked not to discuss the experiment with others; and they were asked to sign a release form, and they were thanked for their participation.

#### **REPERTOIR OF MIMICKING BEHAVIORS**

Mimicry involves copying the behavior of another person. To define the manipulation a pallet of possible normal behaviors was adapted from Chartrand and Bargh (1999). This group of mimicking behaviors the experimenter engaged in comprised the posture, speech tempo, gestures (e.g. tapping of foot, face rubbing, crossing arm or legs). Equally important is the repertoire of non-mimicking behaviors the experimenter was to engage in when not mimicking the participant. In these conditions, the experimenter held a neutral posture, sitting upright, and avoided gesturing in ways that were similar to the participant's own gestures. Facial actions were neutral but pleasant (smiling during greetings, etc.), as any experimenter would otherwise adopt during any other task. If the participant adopted the posture of the experimenter, he would change his posture subtly and slowly, to an alternate but dissimilar posture. The non-mimicry behavior plan included a shift in the seating angle where the experimenter would turn slightly to one side, or another with his lower body and address the participant at a slightly acute angle. This ensured that during the entire interaction the participant had a full view of the experimenter, and the experimenter did not adopt a strange posture or a slouch. Instead, he simply de-synchronized his behavior with the participant.

#### **MESSAGE**

Following the first task, where participants were either mimicked or not, dependent on their assignment, the second segment of the experiment began. The experimenter explained, by reading a script, that the second portion of the task was a survey of the opinions of students commissioned by the university, and administered by the experimenter.

Source Credibility: No manipulation: The experimenter stated that the University was interested in gauging students' response to the following argument, to aid in the setting of policy.

Forewarning of Intent to Persuade: The experimenter stated the following forewarning: “The argument I am going to try and convince you of is the need for the adoption of senior comprehensive exams at this University.”

Personal Relevance: In the experiment personal relevance was held constant at high. All participants were told that the outcome of this student oral argument survey would be used to determine the policy changes during the current academic year.

Strong Argument Condition: All strong argument assigned subjects heard a message that was verbally presented by the experimenter. Participants were asked to listen and evaluate oral arguments for the institution of senior comprehensive exams. These exams were to be instituted at the end of the current academic year. The overall reason provided for this was to make the University “a Top 10 all round school.”

Strong arguments and weak arguments used in this manipulation were previously published (Chen et al. 1992). The arguments are reported in Chen et al. (1992) and are credited to be inspired by and adapted from Petty and Cacioppo (1977). For detail on the arguments please see (Chen et al. 1992).

#### **DEPENDENT MEASURES**

A liking measurement was taken by repeated measures; all items were 9-point scales ranging from extremely awkward to extremely smooth, and extremely dislikable to extremely likeable. Each scale included a neutral point. The questions were as follows: 1. How likable was the experimenter? 2. How smoothly would you say your interaction went with the experimenter? Other questions were added to help camouflage the intent of the questionnaire. Immediately after listening to the persuasive argument, participants were asked to respond to three questions: (1) To what extent do you agree with the

persuasive message, on the adoption of senior comprehensive exams at University? (2) What is your position on the adoption of the exams? (3) The presenter was very persuasive [in your view].

All responses were 9-point scales ranging from “strongly disagree” to “strongly agree”, including a neutral point. Participants then performed a cognitive response thought listing exercise for three minutes. Participants were timed by the experimenter, and they were warned after two minutes had elapsed that one minute remained to complete their listing. All participants were able to complete their listing of thoughts in the allotted time.

### RESULTS

Results of the experiment are summarized in Table 1, and a brief restatement of the hypotheses and corresponding results are described directly below.

-----  
 Insert Table 1 Approximately Here  
 -----

Hypothesis 1a stated that when a persuader mimics a target of persuasion, this action will increase liking of the persuader by the target of persuasion. A simple ANOVA reveals disconfirmation of this hypothesis  $F(1,79) = 0.171, p = 0.68$ .

Hypothesis 1b stated that the stimulation of liking as a result of mimicry will not be correlated with the mimicry behavior of the experimenter, since mimicry behavior will not be detected by the participant. A simple Pearson correlation analysis  $R = -0.046, p = 0.68$ , as well as the non-significant effect of mimicry on liking provides support for this hypothesis. Furthermore, during the funneled debrief where participants' awareness of the manipulation was probed, none of the participants detected the mimicry manipulation. Additionally, many participants uttered statements of surprise when they learned of the nature of the manipulation, and expressed that they did not notice anything about the experimenter's behavior.

Hypothesis 2a stated that mimicry by a persuader is associated with a positive bias in the evaluation of an argument by the target of persuasion. To measure the extent of positive bias, I calculated a ratio of positive thoughts to total thoughts. The rationale for this is based on a simple deduction; a positive bias would most likely be expressed as a proportion of thoughts generated. Therefore, if a person is positively biased, the number of positive thoughts as

a fraction of all thoughts should be greater than for those not expressing this bias. Furthermore, a ratio of thoughts inherently controls for variance in the total number of thoughts generated, thereby providing a cogent measure of biased evaluation. I computed this ratio and used it as the dependent variable in an ANOVA model with mimicry and gender as predictor variables. The results provide support for the association of mimicry and positive bias ( $F(1,77) = 6.381, p = 0.014$ ), with participants who were mimicked having a greater proportion of positive thoughts ( $M_{\text{mimicry}} = .348$  vs.  $M_{\text{no-mimicry}} = .181$ ). This second hypothesis was further refined in two areas:

Hypothesis 2b stated that this effect will be greater if the target and persuader are the same gender; however, there is no support for H2b in the model ( $F(1,77) = 1.644, p = 0.204$ ).

Hypothesis 3a stated that mimicry will induce biased processing of the argument and that this will mediate the effect on attitude change. Two naïve coders rated the valence of arguments. Their inter-rater reliability was .99, and an average was used for the analysis. I have assumed, in line with a large volume of precedent researchers in this domain, that participants have a prior negative attitude to exams. This assumption is validated by findings of a greater proportion of negatively valenced thoughts in thought listings. If mimicry affects processing and induces a bias, this would readily be detectable in the number of negative thoughts by noting a reduction in the number of negative thoughts among mimicked participants. The sensitivity of this measure can be enhanced by computing the ratio of negative thoughts to total thoughts.

I performed a Sobel test of mediation resulting in support for this hypothesis, by utilizing a published procedure (Preacher and Hayes 2004). The results of this test are as follows: For negative thoughts;  $z = 2.251, p = 0.0243$ , percent of total effect that is mediated = 75.4%, ratio of indirect to direct effect = 3.064; Goodman test,  $z = 2.233, p = 0.0255$ ; Goodman II test,  $z = 2.269, p = 0.0232$ . For positive thoughts;  $z = 2.383, p = 0.0171$ , percent of the total effect that is mediated = 79.95 %, ratio of indirect to direct effect = 3.989; Goodman test,  $z = 2.364, p = 0.018$ ; Goodman II test,  $z = 2.402, p = 0.0162$ .

A series of ANOVAs exploring the association between mimicry and differently valenced thoughts, that is, positive, negative and neutral, provides further support for this hypothesis. I computed an ANOVA for each facet of the thoughts participants generated after evaluating the argument. For all

ANOVAs I included mimicry and gender. The most sensitive measure directly relating to hypothesis 3 is the number of negatively valenced thoughts a person generated when evaluating the argument. In further examination of this relationship, I computed an ANOVA with mimicry, argument strength and gender as predictor variables to test this hypothesis. Results support hypothesis 3a for mimicry and number of negative thoughts ( $F(1,73) = 9.065, p = 0.004$ ), with mimicked participants ( $M = 3.209$ ) listing fewer negative thoughts than non-mimicked ( $M = 5.438$ ). Furthermore, gender was also significant ( $F(1,73) = 8.306, p = 0.005$ ) with men ( $M = 3.253$ ) listing fewer negative thoughts than women ( $M = 5.394$ ). Gender was balanced across all conditions. No other variables or interactions were significant.

To investigate this hypothesis further, I computed another ANOVA with neutral thoughts as the dependent variable. I considered neutral thoughts because they indicate another manifestation of bias since neutral thoughts are not highly prevalent as a proportion of responses, and an increase in these thoughts could lend directional support for possible attitude change. Surprisingly, mimicry did not have a significant effect on the number of neutral thoughts generated ( $F(1,73) = 0.009, p = 0.926$ ), but gender was significant ( $F(1,73) = 6.676, p = 0.012$ ), with men ( $M = 3.097$ ) listing more neutral thoughts than women ( $M = 1.767$ ). Taken together, these results provide solid support for the hypothesized mediation of biased processing on attitude change.

Hypothesis 3b states that mimicry will result in greater elaboration of positive message components in arguments. Results of the ANOVA analysis do not support this hypothesis; there was no evidence that mimicry stimulated more thoughts in general ( $F(1,77) = 2.072, p = 0.154$ ). Gender was also not significant in this model.

Hypothesis 3c states that mimicry will result in less elaboration on negative (pro-attitudinal) message components in the argument. As reported above, an ANOVA including mimicry and gender as predictor variables provides support for this hypothesis ( $F(1,77) = 3.472, p = 0.068$ ) with mimicked participants ( $M = 3.095$ ) than non-mimicked ( $M = 1.850$ ). Taken together, the results provide mixed support for hypothesis 3, with support for mediation of biased processing, stimulation of positive elaboration, reduced negative elaboration, and a gender difference in the number of neutral thoughts, but no support for an overall increase in elaboration.

Hypothesis 4a stated that mimicry will result in greater perception of the persuasiveness of the presenter. I computed an ANOVA with mimicry, gender, and argument strength as predictor variables that resulted in support for this hypothesis; for mimicry  $F(1,73) = 4.704, p = 0.033, M_{\text{mimicry}} = 5.974; M_{\text{no-mimicry}} = 5.206$ . Gender was also significant;  $F(1,73) = 5.051, p = 0.028, M_{\text{male}} = 5.988; M_{\text{female}} = 5.193$ . Argument strength was not significant;  $F(1,73) = 2.746, p = 0.102$ . No interactions were significant.

Hypothesis 4b stated that the perception of persuasiveness will mediate attitude change. To determine support for this hypothesis I performed the Sobel test. Results of this mediation analysis support hypothesis 4 indicating partial mediation;  $z = 2.063, p = 0.039$ ; the percent of total effect that is mediated = 55.12%; the ratio of the indirect to direct effect = 1.228; Goodman Test  $z = 2.03, p = 0.042$ ; Goodman II Test  $z = 2.097, p = 0.036$ .

Hypothesis 5 stated that mimicking a target results in greater attitude change in the target of persuasion. This main effect of mimicry was determined by computing a simple ANOVA on the dependent measure of personal position on the argument evaluated. Results provide support for this hypothesis in the direction of the hypothesized effect:  $F(1,73) = 3.614, p = 0.063, M_{\text{mimicry}} = 5.161; M_{\text{no-mimicry}} = 4.314$ . No other variables or interactions were significant.

Finally, hypothesis 6 stated that the effect of mimicry on persuasion will be reduced when weak arguments are presented. To determine the impact of mimicry on persuasion I tested two relationships: First since argument strength was incorporated into the procedure to determine support for hypothesis 5, this hypothesis is disconfirmed in relationship to attitude change; Argument strength  $F(1,73) = 0.002, p = 0.964$ . Second, I tested whether argument strength affected biased processing, a more proximal measure. In this case also, there was no significant effect for argument strength:  $F(1,73) = 0.069, p = 0.793$ . Therefore, on all counts hypothesis 6 is disconfirmed.

## DISCUSSION

This study provided a number of unexpected findings. First, hypothesis one was disconfirmed, which is inconsistent with previous studies in this domain that found mimicry was positively associated with liking. A plausible rationale for the lack of difference between mimicked participants' liking for the experimenter and that of non-mimicked participants is the nature of the task associated with

the scale. The filler task stimulated verbal comments from participants pointing out that the task was easy. Compared to other experiments participants were concurrently engaged in, this ease could have caused a general sense of liking for the experimenter and thus the experimenter. In future studies, I will increase the sensitivity of the scales used in this area to redouble the likelihood of detecting the stimulation of liking. As described earlier, liking has been shown to be an important variable in persuasion studies (Roskos-Ewoldsen et al. 2002) with effects relevant to the present study. It is interesting but uncertain why the effect of mimicry seemed at least partially to bypass many of the hypothesized mediators, including liking.

The hypotheses dealing with biased processing (hypotheses 2 and 3) also provided mixed results. Solid support for the stimulation of biased processing was found in support of hypothesis 2, but surprisingly gender was not significant. The proposed account for the action of mimicry included a suspicion that a sense of similarity was conveyed, and that this similarity would be enhanced by physical similarity, i.e. gender and ethnicity. However, specific tests of gender and ethnicity as component predictor variables did not reach significance. This suggests that the impact of behavioral mimicry is in fact on a non-conscious level, and does not depend on the physical traits of the mimicker or person mimicked. Instead, the results appear to support a more generalized sense of inclusion or "same-ness" signaled behaviorally. There was also a significant reduction in the number of negatively valenced thoughts and positive thoughts were also increased among participants who were mimicked. These findings provide further trace evidence of mimicry's action within a highly involved—personally relevant—argument evaluation episode. The fact that the proximal source of this change remained unnoticed by participants would be disquieting, were it not for the relatively small effect size (adjusted R square = 0.026). Therefore, these findings point out that mimicry can provide an edge, albeit a small one, to persuaders.

During the course of the analysis I detected the impact of mimicry on the conscious processes of participants. Across all conditions and in every case, the effect size of mimicry was small, with less than ten percent of variance reliably explained. Among the larger effects of mimicry was the effect on perceived persuasiveness. I found support for the partial mediation of attitude change by this variable. This is in line with the proposed model and mechanism accounting for mimicry's effect on persuasion.

Salespeople who subscribe to the naïve theory that mimicry can indeed cause them to be more effective can find their practical experience validated by these empirical findings. The effect, however, is again relatively small but significant; Adjusted R squared = 0.071,  $F(1,73) = 5.051$ ,  $p = 0.028$ .

## REFERENCES

- Allport, G. W. (1968), *The historical background of modern social psychology* (2nd ed.). Menlo Park: Addison-Wesley.
- Bailenson, J. N. and N. Yee (2005), "Digital chameleons - Automatic assimilation of nonverbal gestures in immersive virtual environments," *Psychological Science*, 16 (10), 814-19.
- Chartrand, Tanya. L. and John. A. Bargh (1999), "The Chameleon Effect: The Perception-Behavior Link and Social Interaction," *Journal of Personality & Social Psychology*, 76 (6), 893-910.
- Chen, Hong Chyi, Richard Reardon, Cornelia Rea, and David J. Moore (1992), "Forewarning of content and involvement: Consequences for persuasion and resistance to persuasion," *Journal of Experimental Social Psychology*, 28 (6), 523-41.
- Dijksterhuis, A., P. K. Smith, R. B. van Baaren, and D. H. J. Wigboldus (2005), "The unconscious consumer: Effects of environment on consumer behavior," *Journal of Consumer Psychology*, 15 (3), 193-202.
- Feldman, J. M. and J. G. Lynch (1988), "Self-Generated Validity and Other Effects of Measurement on Belief, Attitude, Intention, and Behavior," *Journal of Applied Psychology*, 73 (3), 421-35.
- Howard, D. J. and C. Gengler (2001), "Emotional contagion effects on product attitudes," *Journal of Consumer Research*, 28 (2), 189-201.
- Janiszewski, C. and S. M. J. van Osselaer (2005), "Behavior activation is not enough," *Journal of Consumer Psychology*, 15 (3), 218-24.
- Lakin, J. L., V. E. Jefferis, C. M. Cheng, and T. L. Chartrand (2003), "The chameleon effect as social glue: Evidence for the evolutionary significance of nonconscious mimicry," *Journal of Nonverbal Behavior*, 27 (3), 145-62.
- Locke, K. S. and L. M. Horowitz (1990), "Satisfaction in interpersonal interactions as a function of similarity in level of dysphoria," *Journal of Personality & Social Psychology*, 58 (5), 823-31.
- Petty, R. E. and J. T. Cacioppo (1984), "The effects of involvement on responses to argument quantity and quality: Central and Peripheral routes to

- persuasion," *Journal of Personality & Social Psychology*, 46, 69-81.
- Preacher, K. J. and A. F. Hayes (2004), "SPSS and SAS procedures for estimating indirect effects in simple mediation models," *Behavior Research Methods, Instruments, and Computers*, 36, 717-31.
- Roskos-Ewoldsen, David R., Jacqueline Bichsel, and Kathleen Hoffman (2002), "The Influence of Accessibility of Source Likability on Persuasion," *Journal of Experimental Social Psychology*, 38 (2), 137-43.
- Tiedens, Larissa Z. and Alison R. Fragale (2003), "Power Moves: Complementarity in Dominant and Submissive Nonverbal Behaviour," *Journal of Personality & Social Psychology*, 84 (3), 558-68.
- van Baaren, R. B., R. W. Holland, B. Steenaert, and A. van Knippenberg (2003), "Mimicry for money: Behavioral consequences of imitation," *Journal of Experimental Social Psychology*, 39 (4), 393-98.
- van Baaren, R. B., T. G. Horgan, T. L. Chartrand, and M. Dijkmans (2004b), "The forest, the trees, and the chameleon: Context dependence and mimicry," *Journal of Personality and Social Psychology*, 86 (3), 453-59.

For further information contact: Gunter Wessels, Marketing Department, Room 320C, Eller College of Management, McClelland Hall, 1130 E. Helen Street, The University of Arizona Tucson, AZ 85721-0108; gwessels@email.arizona.edu

APPENDIX A: FIGURE1, GENERAL THEORETICAL MODEL

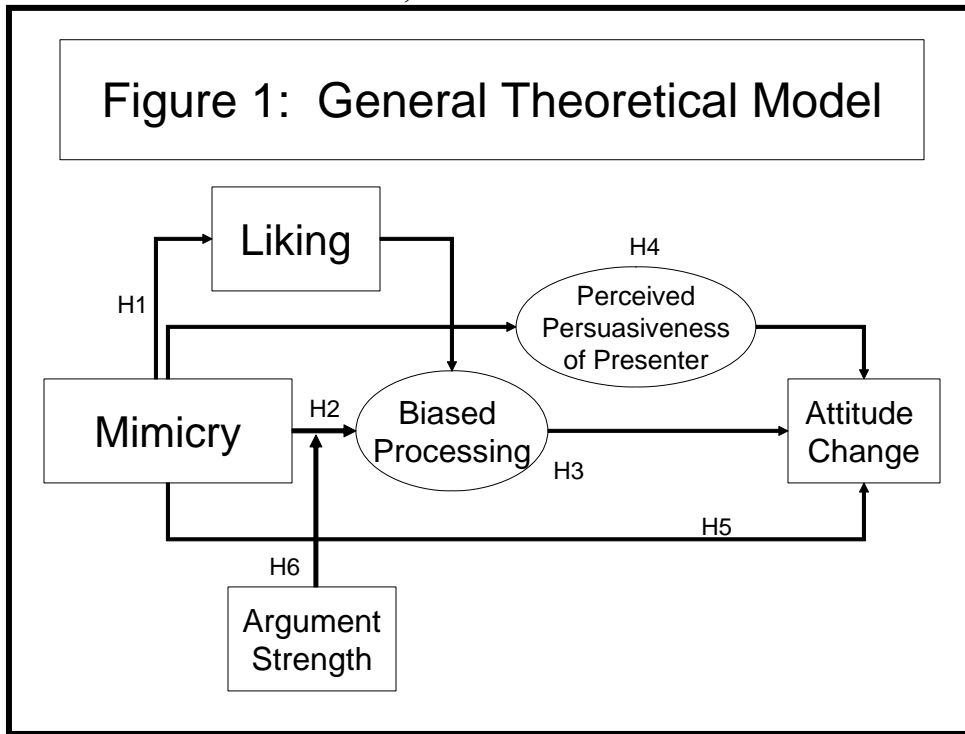




Table 1- Results

| Hypothesis   | Supported     | Coefficient<br>(df, error df)  | p-value                          | Data  | Data   |
|--|---------------|--|----------------------------------|---|--|
| 1a- Mimicry is positively associated with liking                         | Not Supported | $F(1,79) = 0.171$  | $p = 0.68$                       |   |  |
| 1b- Mimicry is correlated with liking and detected                       | Supported     | $R = -0.046$   | $p = 0.68$                       |   |  |
| 2a- Mimicry is positively associated with biased argument consideration  | Supported     | $F(1,77) = 6.381$  | $p = 0.014$                      | Mimicry = 0.348                                   | No-mimicry = 0.181                                     |
| 2b- Bias is greater in same gender                                       | Not Supported | $F(1,77) = 1.644$  | $p = 0.204$                      |   |  |
| 3a- Mimicry results in biased processing which mediates attitude change  | Supported     | Ratio positive thoughts<br>$z = 2.251$ ,<br>Ratio negative thoughts<br>$z = 2.383$ , | $p = 0.0243$<br><br>$p = 0.0171$ | Percent mediated<br>79%<br><br>75%                | Ratio of indirect to direct effect<br>3.98<br><br>3.06 |
| 3b- Mimicry results in greater numbers of thoughts                       | Not Supported | $F(1,73) = 0.009$  | $p = 0.926$                      |   |  |
| 3c- Mimicry results in less negative thoughts                            | Supported     | Mimicry<br>$F(1,73) = 9.065$<br>Gender<br>$F(1,73) = 8.306$                          | $p = 0.004$<br><br>$p = 0.005$   | Mimicry = 3.209<br>Male = 3.253                   | No-mimicry = 5.438<br>Female = 5.394                   |
| 4a- Mimicry results in greater perceived persuasiveness of the presenter | Supported     | $F(1,73) = 4.704$  | $p = 0.033$                      | $M_{\text{mimicry}} = 5.974$                      | $M_{\text{no-mimicry}} = 5.206$                        |
| 4b- Perceived persuasiveness mediates attitude change                    | Supported     | $z = 2.063$  | $p = 0.039$                      | Percent of total effect that is mediated = 55.12% | Ratio of the indirect to direct effect = 1.228         |
| 5- Mimicry positively influences attitude change                         | Supported     | $F(1,73) = 3.614$  | $p = 0.063$                      | $M_{\text{mimicry}} = 5.161$                      | $M_{\text{no-mimicry}} = 4.314$                        |
| 6- Mimicry's effect is moderated by argument strength                    | Not supported | $F(1,73) = 0.002$  | $p = 0.964$                      |   |  |

**The Importance of Being Hedonic:  
Consumer Responsiveness to Promotions for Hedonic and Utilitarian Products**

Keith Wilcox, Baruch College  
Kapil Bawa, Baruch College

**ABSTRACT**

Most existing research on sales promotions has examined the factors that motivate consumers to respond to promotions from two perspectives. The first area focuses on the individual level variables that predict consumer responsiveness to promotions. The second major area within sale promotions focuses on the characteristics of the promotion that cause individuals to be more responsive to promotions. Recently, however, research suggests that the nature of the product category and the consumer's attitude towards the product along hedonic and utilitarian dimensions can also create differences in how consumers respond to promotions. However, the few studies that explore the subject offer mixed conclusions (Chandon et al. 2000; Okada 2005).

Consequently, the purpose of this research is threefold. First, we would like to determine if consumers are more responsive to promotions (specifically monetary promotions) for hedonic products or utilitarian goods. Second, we intend to offer a theoretical explanation as to why individuals respond differently to monetary promotions for hedonic and utilitarian products. Finally, we want to explore how different promotional characteristics can moderate individuals' responsiveness to promotions for hedonic and utilitarian alternatives. Answers to these questions should have significant managerial implications by offering greater insight into the effectiveness of promotions for different product categories and states of consumer motivation.

Research demonstrates that individuals are often motivated by hedonic and utilitarian considerations (Dhar and Wertenbroch 2000). However, individuals tend to constrain their consumption of hedonic products for self-control reasons because spending money on hedonic products is often associated with frivolous spending (Kivetz and Simonson 2002). Consequently, individuals tend to feel a sense of guilt associated with purchasing hedonic products and they are only likely to consume hedonic products when the context allows them to justify their decision (Okada 2005). We believe that this need to justify hedonic consumption should result in differences in the way individuals respond to monetary promotions for hedonic and utilitarian alternatives. While discounts enhance customer value by lowering the

final price paid for the product, it also makes it easier for individuals to justify purchasing the product. Since hedonic consumption is constrained by the need for justification, we hypothesize that consumers will be more responsive to monetary promotions on hedonic products than utilitarian goods.

In the first of three studies developed to test our hypothesis, ninety-five undergraduates participated in a study as part of a course requirement. Participants were asked to either evaluate a video iPod (hedonic product) or an electronic language translator (utilitarian product) and then to indicate purchase intent at either the full price of the product (\$299.99) or at a twenty-five percent discount. An ANOVA model was used for the analysis with purchase intent as the dependent variable and product type (hedonic/utilitarian) and sale (discount/no discount) as the two within subject factors. The results indicated that there was a significant main effect for whether or not the product was on sale and a significant interaction between the hedonic and discount factors. As hypothesized, the increase in purchase intent for the video iPod was greater when it was on discount than the increase for the language translator.

The purpose of study two was to offer additional support for the responsiveness hypothesis, provide a more direct test of the justification explanation and see if different types of monetary promotions (i.e., discounts, coupons and rebates) could create a different pattern of response across the two product types. A pretest conducted with eighty-two undergraduates confirmed that there was a significant difference in justification between rebates and other types of promotions with rebates perceived as harder to justify because they offer a delayed reward (Folkes and Wheat 1995).

One hundred thirty undergraduates evaluated a total of two hedonic (video iPod and digital camera) and two utilitarian products (language translator and PDA) at full price and then with a 25% off promotion that was a coupon, discount or rebate. A repeated measures ANOVA indicated that the increase in purchase intent when the hedonic products were on promotion were significantly greater for hedonic products than for utilitarian products. To test that justification played a role, a mediation analysis

confirmed our hypothesis that the ability to justify purchasing the product mediated the relationship between product type and purchase intent after promotion. Finally, a test across promotions types confirmed the hypothesis that purchases intentions for hedonic products compared to utilitarian products would be greater when the products are offered with a price discount or a coupon than a rebate.

The primary purpose of the third study was to control for any category effects by demonstrating a similar pattern of results on the same product based on whether it was evaluated according to hedonic or utilitarian criteria. One hundred forty-six undergraduates read either a hedonic or utilitarian description of a cell phone at full price or with a 25% discount. Similar to the results in prior studies, an ANOVA indicated that there was a significant interaction between the description type and sale factors. A mediation analysis confirmed our

hypothesis that justification mediated the effect of the hedonic dimension on purchase intent.

We feel that this research has significant managerial implications because it offers greater insight into consumer response to promotions and suggests that consumers will be more responsive to promotions for hedonic products than utilitarian product. Although the products used in this study were mostly consumer durables, this research could have implications for products in non-durable categories. For instance across most consumer product categories, consumer have been demonstrated to be more promotions sensitive for premium brands within the category. Since brands within the same product category can perceived as more or less hedonic, perhaps this pattern of behavior could also be explained by consumers' hedonic attitude towards these brands.

For further information contact: Keith Wilcox; One Bernard Baruch Way; New York, NY 10010

## How Human Values Influence Food And Beverage Choice Depends On Whether Consumers Examine The Front Of The Package Or The Back

Michael W. Allen, University of Sydney

Melanie Adam, National Engineer School for Food Industries and Management, France

Mathilde Lasnier National Engineer School for Food Industries and Management, France

Simon Le Deaut, National Engineer School for Food Industries and Management, France

### ABSTRACT

The packaging of foods and beverages is an important issue for marketers and health policymakers because more than two-thirds of purchase decisions involve some sort of in-store decision (Point-of-Purchase Advertising Institute, 1995). How do consumers choose? Consumers could compare the competing brands on attributes that are important to them based on their prior experiences with the attribute. However, product innovation and the increasing number of brands in the marketplace mean that consumers often buy products with attributes that they have not experienced. How do consumers decide which attributes are important when they have not previously experienced them?

A likely explanation is that consumers' attribute importances stem from their deeply held beliefs and human values. Human values are "desirable trans-situational goals, varying in importance, that serve as guiding principles in the life of a person or other social entity" (Schwartz, 1994, p. 21). The traditional model suggested that values influence the kinds of tangible attributes that are important to a person and these attribute importances in turn guide product choice (e.g., Gutman, 1982; Lindberg, Garling, & Montgomery, 1989; Scott & Lamont, 1973), but a test found that it could not fully account for the influence of human values on product choice (Allen, 2000).

Accordingly, Allen and colleagues (Allen, 2001, 2002; Allen & Ng, 1999, 2003; Allen, Ng, & Wilson, 2002) developed a new approach, the "dual route model", which outlines two major routes through which human values influence product choice. Firstly, when consumers are evaluating a product's utilitarian meaning and using a piecemeal judgment, their human values influence the importance of the product's tangible attributes that in turn influence product preference (i.e., the indirect route). Utilitarian meaning is located in the product's tangible attributes, because tangible attributes disclose the quality of the product's physical performance, degree of functionality, and ability to control the environment (Hirschman, 1980). Individuals who want to select the product with the highest utility would likely use what Fiske and

Pavelchak (1986) term "piecemeal judgment", which proceeds attribute-by-attribute to evaluate a product in a logical, systematic, and comprehensive fashion.

Thus, for foods and beverages, this indirect route would likely be activated when a consumer examines the back of the package. He or she would carefully and systematically assess the extent that the product contains the tangible attributes that are important to him or her (e.g., nutrition, taste, familiarity) and that stem from his or her human values. Moreover, nutritional labels and ingredients are presented in the same format for most products, obscuring any unique brand symbolism and image and, hence, leaving only the nutrition and ingredient information to evaluate. Also, the nutritional labels and ingredients are presented in words and numbers, which are represented in memory verbally (MacInnis & Price, 1987) and facilitate a piecemeal judgment (Holbrook & Moore, 1981; Miller, 1987).

Besides having an indirect influence on product choice, individuals' human values are suggested by Allen and colleagues' dual route model to have a direct influence on product choice when consumers evaluate the image/symbolism of the product and make an affective judgment. An affective judgment is swift and holistic, akin to what Fiske and Pavelchak (1986) describe as a category-based judgment, but an affective judgment also has a strong emotional component (Mittal, 1988; Zajonc, 1984). The symbolic meaning or image of a product refers to the culturally constituted world (e.g., social groups and cultural values) (McCracken, 1988). Food and beverage packages contain a host of symbolic elements such as brand name, colour, shape, font, etc (Peter & Olson, 2002). Further, when consumers evaluate symbolic meaning they tend to imagine how they would look and feel while using the product (Mittal, 1988), which leads to an affective judgment (e.g., Anderson, 1983; Bone & Ellen, 1992). For foods and beverages, this self-referring imagery likely involves the symbolism of the brand name and the package shape and design, which are easily conveyed on the front of the package. Thus, it is likely that consumers swiftly and affectively evaluate the front of the package by assessing the extent to which the image/symbolism of the product is

consistent with the values that they personally support.

In sum, we suggest that consumers' human values have a direct influence on product choice when they evaluate the front of the package, and an indirect influence when they evaluate the back. Moreover, the former is swift, whereas the latter takes more time. To test these ideas, 195 participants were shown either a photograph of the front of a package, or the nutritional information, ingredients, and other text on the back of the package (the information from the back of the package was presented to participants in plain text in order to put the focus on the information itself. For the same reason, they were not told brand name, only category). The photograph of the front or the text on the back was shown to participants for 4 or 60 seconds. These times were chosen based on previous studies revealing that consumers spend 12 seconds on average choosing a product on a display shelf (Dickson & Sawyer, 1990). After viewing the item, participants indicated how much they liked the product. Participants repeated this process for six food and beverage brands, then completed Schwartz's (1994) Value Survey and rated the importance of 30 food and beverage tangible attributes.

A Residual Method regression process was used to determine the extent that a participant's human values had a direct or indirect influence on product preference (see Allen & Ng, 1999 for details of method), which confirmed the predictions. These findings have implications for marketing, package design, and health policy. For instance, previous research has uncovered a positive correlation between time scarcity and poor nutrition (Cawley, 2004; Jeffery & French, 1998). The results of the present study imply that time scarcity prompts individuals to make product choices based on non-nutritional reasons on the front of the package, whereas time abundance leads to both the front and the back being considered.

#### REFERENCES

- Allen, M. W. (2000). The Attribute-mediation and Product Meaning approaches to the influences of human values on consumer choices. In F. Columbus (Ed.), *Advances in Psychology Research: Vol. 1*. (pp. 31-76). Huntington, NY: Nova Science Publishers.
- Allen, M. W. (2001). A practical method for uncovering the direct and indirect relationships between human values and consumer purchases. *Journal of Consumer Marketing*, 18(2), 102-120.
- Allen, M. W. (2002). Human values and product symbolism: Do consumers form product preference by comparing the human values symbolised by a product to the human values that they endorse? *Journal of Applied Social Psychology*, 32(12), 2475-2501.
- Allen, M. W., & Ng, S. H. (1999). The direct and indirect influences of human values on product ownership. *Journal of Economic Psychology*, 20(1), 5-39.
- Allen, M. W., & Ng, S. H. (2003). Human values, utilitarian benefits and identification: The case of meat. *European Journal of Social Psychology*, 33(1), 37-56.
- Allen, M. W., Ng, S. H., & Wilson, M. (2002). The functional approach to instrumental and terminal values and the value-attitude-behaviour system. *European Journal of Marketing*, 36(1/2), 111-135.
- Anderson, C. A. (1983). Imagination and expectation: The effect of imagining behavioral scripts on personal intentions. *Journal of Personality and Social Psychology*, 45, 293-305.
- Bone, P. F. & Ellen, P. S. (1992). The generation and consequences of communication-evoked imagery. *Journal of Consumer Research*, 19, 93-104.
- Cawley, J. (2004). An economic framework for understanding physical activity and eating behaviors. *American Journal of Preventive Medicine*, 27(3S), 117-125.
- Dickson, P. R. & Sawyer, A. G. (1990). The price knowledge and search of supermarket shoppers. *Journal of Marketing*, 54, 42-53.
- Fiske, S. T., & Pavelchak, M. A. (1986). Category-based versus piecemeal-based affective responses: Developments in schema-triggered affect. In R. M. Sorrentino and E. T. Higgins (Eds.), *Handbook of motivation and cognition*, (pp. 167-203). New York: Guilford Press.
- Gutman, J. (1982). A means-end chain model based on consumer categorization processes. *Journal of Marketing*, 46, 60-72.
- Hirschman, E. C. (1980). Attributes of attributes and layers of meaning. *Advances in Consumer Research*, 7, 7-12.
- Holbrook, M. B., & Moore, W. L. (1981). Cue configularity in esthetic responses. In E. C. Hirschman & M. B. Holbrook (Eds.), *Symbolic consumer behavior*, (pp. 16-25). Ann Arbor: Association for Consumer Research.
- Jeffery, R. W., & French, S. A. (1998). Epidemic obesity in the United States: Are fast foods and television viewing contributing? *American Journal of Public Health*, 88(2), 277-280.
- Lindberg, E., Garling, T., & Montgomery, H. (1989). Belief-value structures as determinants of

- consumer behavior: A study of housing preferences and choices. *Journal of Consumer Policy*, 12, 119-137.
- MacInnis, D. J., & Price, L. L. (1987). The role of imagery in information processing: Review and extensions. *Journal of Consumer Research*, 13, 473-491.
- McCracken, G. D. (1988). *Culture and consumption: New approaches to the symbolic character of consumer goods and activities*. Bloomington: Indiana University.
- Miller, A. (1987). Cognitive styles: an integrated model. *Educational Psychology*, 7(4), 251-268.
- Mittal, B. (1988). The role of affective choice mode in the consumer purchase of expressive products. *Journal of Economic Psychology*, 9, 499-524.
- Peter, J. P., & Olson, J. C. (2002). *Consumer behavior and marketing strategy*. Sydney: Irwin McGraw-Hill.
- Point of Purchase Advertising Institute (1995), The 1995 POPAI Consumer Buying Habits Study. Englewood, NJ: Point-of-Purchase Advertising Institute.
- Schwartz, S. H. (1994). Are there universal aspects in the structure and contents of human values? *Journal of Social Issues*, 50(4), 19-46.
- Scott, J. E. & Lamont, L. M. (1973). Relating consumer values to consumer behavior: A model and method for investigation. In Greer, T.W., *Increasing marketing productivity* (pp. 283-288). Chicago: American Marketing Association.
- Zajonc, R. B. (1984). On the primacy of affect. *American Psychologist*, 39(2), 117-123.

## Personality Traits Predictive of Extreme Beauty-Enhancing Behaviors

Adelina Longoria, Oklahoma State University

Amy Sallee, Oklahoma State University

John C. Mowen, Oklahoma State University

### ABSTRACT

The number of people purchasing beauty enhancing procedures, such as cosmetic surgery, has climbed throughout the industrialized world. While numerous studies have investigated the psychology of attractiveness, few studies have examined the characteristics of people who seek to obtain potentially harmful procedures, such as plastic surgery and tanning. The purpose of the present research is to investigate nomological network of traits predictive of plastic surgery and tanning behaviors. The 3M Model of Motivation and Personality (Mowen, 2000) is employed as the basis for the structure of the nomological network.

### Method

A 4-page survey was sent to 500 members of a consumer panel. Responses were obtained from 231 individuals over a one month time period. Tanning and plastic surgery propensity were measured by four-item scales. Based upon a literature review and logical analysis, the following constructs were investigated as antecedents to tanning and plastic surgery propensity: competitiveness, activity needs, self-efficacy, health motivation, and two measures of vanity--vanity view and vanity concern (Netemeyer et al., 1995). In addition, the eight elemental traits identified in the 3M Model were included as control variables: openness to experience, conscientiousness, emotional instability, agreeableness, introversion, need for material resources, need for body resources, and need for arousal. The coefficient alphas of all scales were above .75.

### Results

Based upon the structure of the 3M Model (e.g., Mowen & Sujan, 2005), a 4-level hierarchical model was developed and analyzed via structural equation modeling. A partial mediation model was employed with elemental traits placed as exogenous variables. The compound level traits of competitiveness, activity needs, and self-efficacy were at the next level. At the situational level, the measures of health motivation, vanity concern and vanity view were placed. Finally, tanning and cosmetic surgery propensity were placed at the surface level. The various fit indices of the model were acceptable. The model accounted for 26.4 percent of variance in tanning propensity, and the following constructs were

significant: health motivation ( $t = -1.69$ ,  $p < .05$ , 1-tailed), introversion ( $t = 2.19$ ,  $p < .05$ ), need for body resources ( $t = 2.83$ ,  $p < .01$ ), age ( $t = -2.76$ ,  $p < .01$ ), physical concern ( $t = 2.18$ ,  $p < .05$ ), and competitiveness ( $t = 1.75$ ,  $p < .05$ , 1-tailed). For plastic surgery propensity, the model accounted for 22.7 percent of the variance. Significant predictors were: health motivation ( $t = -2.98$ ,  $p < .01$ ), conscientiousness ( $t = -1.91$ ,  $p < .06$ ), emotional instability ( $t = 2.10$ ,  $p < .05$ ), material resource needs ( $t = 3.06$ ,  $p < .002$ ), gender ( $t = 2.32$ ,  $p < .05$ ), physical concern ( $t = 1.82$ ,  $p < .05$ , 1-tailed), and physical view ( $t = 2.18$ ,  $p < .05$ ).

In the model vanity view and vanity concern had direct paths to tanning and plastic surgery and partially mediated the deeper level traits. The model accounted for 35.5 percent of the variance in physical view. Its significant predictors were: self-efficacy ( $t = 1.86$ ,  $p < .06$ ), introversion ( $t = -3.77$ ,  $p < .001$ ), need for arousal ( $t = 3.62$ ,  $p < .001$ ), need for body resources ( $t = 4.90$ ,  $p < .001$ ), competitiveness ( $t = -2.38$ ,  $p < .05$ ), and age ( $t = -1.86$ ,  $p < .06$ ). The model accounted for 32.0 percent of the variance in physical concern. Its significant predictors were: self-efficacy ( $t = -1.67$ ,  $p < .10$ ), need for material resources ( $t = 3.80$ ,  $p < .001$ ), need for body resources ( $t = 4.13$ ,  $p < .001$ ), income ( $t = -1.97$ ,  $p < .05$ ), and gender ( $t = 5.11$ ,  $p < .001$ ).

### Discussion

The primary goal of the present research was to investigate the characteristics of individuals having a propensity to tan and to obtain plastic surgery. Results revealed that those interested in the two procedures shared more differences than commonalities. The commonalities included lower levels of health motivation and higher levels of concern for their physical attractiveness. Those interested in tanning tended to be introverted, higher in body resource needs, younger, and more competitive. In contrast, those interested in plastic surgery tended to be low in conscientiousness, emotionally unstable, high in material needs, high in their view of their attractiveness, and more frequently female.

A comparison of the trait predictors of two dimensions of vanity identified by Netemeyer et al. (1995) was also made. Results revealed that the

correlation between the constructs was only  $r = .15$ . The only common predictor of the two constructs was the need for body resources. Higher levels of physical view were associated with higher levels of self-efficacy, extroversion, arousal, body resource needs, and being younger and less competitive. In contrast, higher levels of physical concern were positively associated with material needs, with lower self-efficacy, with lower income, and with being female. These results suggest that the constructs do not represent two dimensions of an underlying construct of vanity, but rather that they are different constructs.

The results have implications for the marketing and demarketing of tanning and plastic surgery services. Based upon schema congruity theory (Fiske & Taylor, 1984), identification of the trait predictors of tanning and cosmetic surgery propensity can assist in the identification of persuasive messages. For instance, based on the finding that those who like to tan are competitive, marketers could develop messages that link tanning to success in competition

for members of the opposite sex. In contrast, the findings revealed that those with a propensity for cosmetic surgery have higher needs for material resources. As such, messages linking cosmetic surgery to the luxurious material world should be effective. The findings also have relevance to demarketing of tanning and plastic surgery. Previous research shows that in order for people to take a particular health-related action (i.e. sun protection) they must have a greater sense of perceived susceptibility and health threat (Jackson & Aiken, 2006). Because the propensity to tan and have cosmetic surgery are associated with a concern for physical attractiveness, stressing the deleterious effects of such behaviors on future physical attractiveness may help decrease such behaviors.

For further information contact: Adelina Longoria, Oklahoma State University, Department of Psychology, 215 N. Murray, Stillwater, OK, 74078.



## Consumer Perceptions Of Corporate Social Responsibility: The Case Of Moderation Marketing

Chelsea Willness, University of Calgary  
Katherine White, Haskayne School of Business

### ABSTRACT

*Labatt Breweries of Canada is reconfirming its commitment to promoting responsible alcohol use this week by bringing its innovative Know When To Draw the Line message back to television.*

-Labatt Breweries of Canada, September 9, 2004

*In what appears to be the most elaborate and costly effort of its kind by a tobacco company, Philip Morris U.S.A., the nation's largest cigarette maker, plans to spend at least \$100 million a year to discourage children and teenagers from smoking at a time when underage smoking has risen drastically*

-Constance L.Hays, New York Times, December 3, 1998

These quotes demonstrate an emerging phenomenon regarding corporate social responsibility (CSR) initiatives: Promotion that encourages decreased or moderate use of the company's own core products or services. This moderation marketing strategy has taken different forms. First, some companies have communicated that consumers should not use their products or services to excess. In the example above, Labatt Breweries promotes the consumption of its products in moderation. In another example, Scotts encourages consumers to not over-apply its lawn care products (Scotts 2005). Second, some corporations are promoting the avoidance of using their product or service altogether, such as Phillip Morris who promotes smoking abstinence and cessation among youth. Another example is casinos and lottery corporations promoting services to help consumers quit gambling.

All of these strategies encourage consumers to engage in behaviors that will ultimately result in decreased usage of the corporation's core products. However, this message of moderation or cessation of product use is clearly counter to a corporation's goal to increase product sales and to obtain a strong position in the marketplace. The focus of the current research is to examine consumer response to CSR campaigns that promote decreased brand usage. Under certain conditions, consumers may perceive such campaigns as being benevolent, whereas in other cases consumers may construe these campaigns hypocritical and self-serving on the part of the corporation. Our focus is on the conditions under

which such moderation marketing campaigns are viewed negatively or positively in the mind of the consumer.

Variables that influence the effectiveness of CSR strategies in general include the quality of company's products (Sen and Bhattacharya 2001), consumer support for the CSR issues and beliefs about CSR in general (Sen and Bhattacharya 2001), consistency between the firm's stated motives and the support for a particular cause (Forehand and Grier 2003), the source through which consumers learn about the CSR activities (Yoon, Gurhan-Canli, and Schwarz 2006), the amount of CSR contributions relative to CSR related advertising (Yoon et al. 2006), as well as perceived congruency between the cause that is being supported and the company's values (Yoon et al. 2006).

However, to date, the focus of CSR research has been on internal company policies such as employee diversity and support (Sen and Bhattacharya 2001), as well as forms of support that assist causes external to the company itself such as helping the environment (Bansal and Roth 2001; Klassen and McLaughlin 1996; Klein and Dawar 2004), supporting social causes (Yoon et al. 2005), engaging in corporate philanthropy (Bruch and Walter 2005), and taking part in cause-related marketing (Berglund and Nakata 2005). Past research has not focused on CSR initiatives that promote decreased usage of the company's own products and services. Our key prediction is that when moderation marketing promotes critical thinking on the part of the consumer (thereby highlighting the incongruency between the company's goals and the moderation campaign) people will exhibit the most negative evaluations of the company, its social responsibility campaign, and its marketing communications.

In Studies 1 and 2, we examined moderation marketing in the context of marketing communications from a local brewing company. We predicted that the degree to which the moderation strategy was incongruent with company goals (i.e., the degree to which the campaign promotes decreased usage of the company's core products) would predict consumer attitudes. In study 1, we examined consumer evaluations of actual advertising taglines and found that participants had the most negative evaluations of the company and highest

perceptions of incongruency regarding those taglines that most strongly promoted decreased product usage. In study 2 we utilized a more controlled experimental design and found that strategies that promoted an incongruent degree of decreased usage (i.e., abstinence) as compared to more moderate strategies (i.e., moderation and responsibility) or a control condition lead to the most negative evaluations of the advertisement, the CSR campaign, and the company itself.

In a third study, we predicted that consumers who had more processing resources to devote to the task (those high in need for cognition) would have less positive reactions to moderation marketing encouraging cessation and abstinence from smoking when the goals of the company were highly incongruent with the moderation message (i.e., a cigarette company rather than a clothing company). We did not predict that those low in need for cognition would demonstrate a difference in attitudes towards the company based on congruency. The results confirmed that in the presence of the moderation marketing campaign those low in need for cognition did not more negatively evaluate the company when the goals were incongruent (i.e., a cigarette company) rather than neutral (i.e., a clothing company). However, those high in need for cognition

were influenced by degree of incongruency—they evaluated the company more negatively when the company goals were incongruent than when the company goals were neutral.

Across three studies we demonstrate that when incongruency is highlighted, marketing messages that promote decreased usage of the company's own product lead to negative consumer evaluations. Messages of decreased product usage are indeed relevant across a wide range of consumer behaviors such as drinking alcoholic beverages, smoking cigarettes, gambling, overeating, and using pharmaceuticals. Thus, the current topic is both timely and of great importance to consumer well-being. Future research should continue to examine factors that influence consumer perceptions of moderation marketing (i.e., when is it perceived as benevolent vs. malevolent on the part of the company) and how companies can best communicate messages of moderation to consumers.

For further information, contact: Chelsea Willness; Ph.D. student, Faculty of Psychology; University of Calgary; 2500 University Drive NW, Calgary, AB T2N 1N4; Phone: (403) 685.5655, Fax (403) 282-8249; E-mail: willness@ucalgary.ca

## Regulatory Fit: Matching Regulatory Goals With Product Types

Camelia Micu, Fairfield University  
Tilottama G. Chowdhury, Quinnipiac University

### ABSTRACT

Regulatory focus theory has garnered considerable attention in studies of consumer decision-making (see Pham & Higgins, 2005). Proceeding from the fundamental principle that people approach pleasure and avoid pain, the theory distinguishes between two modes of motivation and self-regulation termed as promotion and prevention goals or foci (Higgins, 1997, 1998). Promotion goals relate to attaining positive outcomes such as accomplishments and aspirations and prevention goals relate to avoiding negative outcomes such as responsibilities, obligations, and security (Higgins, 1997).

Further, a promotion focus implies that the decision-maker eagerly approaches options that are likely to be positive “hits” and yield gains on the status quo. In contrast, a prevention focus indicates that the decision-maker is mainly vigilant against bad choices and avoids carefully “errors of commission” that likely worsen the status quo (Pham & Higgins, 2005). For example, an advertising message promoting a makeup foundation that “helps one’s skin look clean, smooth, and beautiful” reflects a promotion-based message, involving a strategy that maximizes presence of positive outcome; on the other hand, a message that claims that a makeup foundation “is specially designed for camouflaging the imperfections” reflects a prevention-based message, involving a strategy that minimizes the presence of negative outcomes.

In the current study, we extend the regulatory focus research by focusing on different product types (hedonic versus functional). The primary objective of this research is to examine the role of regulatory focus in the effectiveness of advertisements for hedonic versus functional products. Specifically, we argue that a match between the message frame (promotion versus prevention) and product type (hedonic versus functional) will result in greater persuasiveness and believability, as well as in higher product evaluations.

### REGULATORY FIT WITH FUNCTIONAL VERSUS HEDONIC PRODUCTS

According to Higgins’ (2002) research, when the fit between the regulatory focus and its strategic means is congruent, individuals have more positive feelings about desirable choice and more negative

feelings about undesirable choices. When people are induced by a regulatory goal, they are more likely to remember information that is compatible with their regulatory focus (Crowe & Higgins, 1997; Higgins et al, 1994). In fact, research by Aaker and Lee (2001) shows that promotion focus information had better persuasion for individuals with a promotion focus, whereas prevention focus information was more persuasive for individuals with a prevention focus. In a similar vein, we propose that the effectiveness of advertisements promoting hedonic versus functional products may depend on whether or not the fit between the regulatory goal and the product type (or consumption motivation) is congruent.

Functional products are ones whose consumption is more cognitively driven and accomplishes a functional or practical task (Strahilevitz & Meyers, 1998). Alternatively, hedonic products (e.g., jewelry, perfumes, massages) fulfill experiential needs, feelings or hedonic pleasure (see Babin, Darden, & Griffin, 1994). Hirschman (1980) defines hedonic consumption as consumer behavior that is related to sensual, fantastic, and sensitive experience with a product.

For hedonic products, people might have a transformational purchasing motive (i.e., promotion motive) manifest in benefits such as attractive appearance or exciting feeling. Thus, for hedonic products, a transformational advertisement that promises to enhance the brand user by effecting a transformation in the brand user’s sensory, mental, or social state (i.e., promotion focus) is appropriate (Rossiter, Percy, & Donovan, 1991). For functional products, people have an informational purchasing motive, which is negatively originated and directed toward removing or avoiding a problem (i.e., prevention focus). Thus, for functional products, an informational message (providing product information and promising problem removal) is more effective than a transformational message (Rossiter et al, 1991). In conclusion, we believe that a functional (vs. hedonic) product usually induces prevention (vs. promotion) focus within individuals and thus if the functional (vs. hedonic) product advertisement is framed based on prevention (vs. promotion) focus, such a congruency, or, a *‘regulatory fit’* should be most effective in advertisements and product evaluations. Thus, we posit:

**H1:** For hedonic products, a promotion (vs. a prevention) focus ad will generate more positive responses, resulting in:

**H1a:** higher persuasiveness and believability

**H1b:** more positive product attitudes

**H2:** For functional products, a prevention (vs. a promotion) focus ad will generate more positive responses, resulting in:

**H2a:** higher persuasiveness and believability

**H2b:** more positive product attitudes

### METHODOLOGY

On a pretest, participants rated ten products on a hedonic/functional scale (Voss, Spangenberg, & Grohmann, 2003). Pens (functional) and ice cream (hedonic) were chosen for the experiment. For the proposed study we will create two types of ads for each product. Regulatory focus will be manipulated by varying the emphasis in the advertisements on the approach versus avoidance oriented strategies (approaching gains vs. avoiding losses). To check whether promoting a hedonic versus a functional product induces a promotion versus a prevention goal, participants will be asked to rate the extent to which ads concerned enhancement (hedonic product) or protection (functional product) (see Aaker & Lee, 2001; Kim, 2006).

About 120 undergraduate students will be participating in the main study. Upon entering the experiment, participants will be randomly assigned to one of the four experimental conditions: 2 regulatory focus (promotion versus prevention message) X 2 product (hedonic versus functional) types. They will be given a booklet containing the focus ad and the questionnaire. After examining the ad, the participants will answer the manipulation checks, dependent measures (i.e., message persuasiveness, message believability, and product attitude) and demographic information.

### CONTRIBUTION

In this paper, we develop the theoretical foundation and hypotheses related to the effect of regulatory goals and product type on advertisement effectiveness. Specifically, we propose that, for hedonic products, a promotion-framed message is more effective (i.e., is more believable and persuasive and generates more positive product attitudes) than a prevention-framed message. For

functional products, a prevention-framed message is more effective than a promotion-framed message.

Support for the proposed hypotheses would indicate that advertisers should consider including promotion-framed information in ads promoting products that are consumed primarily for sensory gratification purposes (i.e., hedonic products). Also, products that are consumed primarily for their utility (i.e., functional products) should be promoted with a prevention-focus message.

For further contact information: Camelia C. Micu; Charles Dolan School of Business; Fairfield University; 1073 North Benson Road; Fairfield, CT 06824; tele: 203.254.4000, ext. 2894; fax: 203.254.4105; cmicu@mail.fairfield.edu

### REFERENCES

- Aaker, Jennifer A., & Lee, Angela Y. (2001). 'I' seek pleasure and 'We' avoid pain: The role of self-regulatory goals in information processing and persuasion. *Journal of Consumer Research*, 28, 33-49.
- Babin, B. J., Darden, William R., & Griffin, M. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping value. *Journal of Consumer Research*, 20, 644-656.
- Crowe, Ellen, & Higgins, E. Tory (1997). Regulatory focus and strategic inclinations: Promotion and prevention in decision making. *Organizational Behavior and Consumer Decision Processes*, 69, 117-132.
- Higgins, E. Tory (1997). Beyond pleasure and pain. *American Psychologist*, 52, 1280-1300.
- Higgins, E. Tory (1998). Promotion and prevention: Regulatory focus as a motivational principle. *Advances in Experimental Social Psychology*, ed. Mark P. Zanna, vol. 30, San Diego, CA: Academic Press, 1-46.
- Higgins, E. T. (2002). How self-regulation creates distinct values: The case of promotion and prevention decision making. *Journal of Consumer Psychology*, 12, 177-191.
- Higgins, E. T., Roney, C. J., Crowe, E., & Hymes, C. (1994). Ideal versus ought predilections for approach and avoidance distinct self-regulatory systems. *Journal of Personality & Social Psychology*, 66, 276-286.
- Hirschman, Elizabeth C. (1980). Attributes of attributes and layers of meaning. *Advances in Consumer Research*, 7, 7-12.
- Kim, Yeung-Jo (2006). The role of regulatory focus in message framing in antismoking advertisements for adolescents. *Journal of Advertising Research*, 35, 143-151.

- Pham, Michel Tuan and E. Tory Higgins (2005). Promotion and Prevention in Consumer Decision-Making: The State of the Art and Theoretical Propositions. *Inside Consumption: Consumer Motives, Goals, and Desires*, eds. S. Ratneshwar and David G. Mick, London and New York: Routledge, 8-43.
- Rossiter, John R., Percy, Larry, & Donovan, Robert J. (1991). A better advertising planning grid. *Journal of Advertising Research*, Oct/Nov, 11-21.
- Strahilevitz, Michal A. and G. Myers (1998). Donations to charity as purchase incentives: How well they work may depend on what you are trying to sell. *Journal of Consumer Research*, 24, 276-289.
- Voss, Kevin E., Spangenberg, Eric R., & Grohmann, Bianca (2003). Measuring the hedonic and utilitarian dimensions of consumer attitude. *Journal of Marketing Research*, 40, 310-20.

## What It Means To Be An Adult: Points Of Vulnerability For Youths In Transition

Natalie T. Wood, Saint Joseph's University  
Hélène Cherrier, University of Sydney  
Caroline Muñoz, Fairleigh Dickinson University

### ABSTRACT

When young people attend university and prepare themselves for a productive adulthood, vital processes of identity formation and identity struggle occur. Entering higher education often signifies a physical and emotional separation from family members and friends. This physical separation from past social bonds and the discovery of college lifestyle often relates to anticipated pleasure and eagerness for independence (Clausen 1986). In addition, being separated from the familial "cocoon" can lead young individuals to feelings of uncertainty, insecurity, and vulnerability. Entering and participating in college education can be a risky endeavor (Pechmann et al. 2005) during which one endures a "painful state of self-appraisal" (O'Donnell and Wardlow 2000).

Looking at the importance of self-appraisal in freshmen's process of identity construction, Feinberg et al.'s (1990) suggest four hierarchical concerns. The first relates to occupational decisions, the second highlights the importance of consumer decisions, and the remaining two are religious and political concerns.

The purpose of this study is to investigate whether or not these four main concerns are still relevant in contemporary America. For this aim, we question how university students perceive adulthood. More specifically, we examined 1. Concerns that late adolescents have regarding their own adulthood, 2. Consumption behaviors that define adulthood, and 3. Potential points of vulnerability arising during the liminality stage of change in status from adolescence to adulthood.

There are three innovative elements in this research. First, only young individuals between the age of 18 and 21 are considered in the study. Such focus on a particular life stage provides detailed insight on students' identity. Second, the data collection uses a projective technique, which highlights the subjective elements of identity. Finally, informants are asked (to express visually and in a written report) their envisioned identity of being an adult, which allows them to consider all possible identities. The participants' thoughts, feelings, and beliefs were analyzed using a triangulation method (three researchers).

Three prominent themes emerged from the data: responsibility, finance and consumption. Being responsible to and for others, as well as responsibility to society as a whole was perceived as something that was stressful and weighed heavily on the minds of many participants ("I feel there is so much pressure on going to college, getting a good job right out of school, buying a house and starting a family," #36 male19).

Money was viewed as essential and a common indicator of reaching adulthood ("Without money it is not possible to own a car or to buy a house for a family to be raised in," #24 male19), but was also perceived as a primary source of stress ("[Money] is a very large concern because it is a big factor in determining what kind of life you will have and what kind of life you can give your family," #9 fem20). Interestingly, many informants viewed debt management as only an issue associated with being an adult ("The management of debt is generally only a concern in adulthood," #16 male18).

A number of consumption related activities, namely the acquisition of products including cars, houses, clothing and alcohol were offered. Many of these products were viewed as a symbol of achievement ("[cars] are significant in that they show the different ways that monies gained from hard work will pay off," #33 male19) and in some cases, (e.g. expensive alcohol) they were both a representation and instrument of adulthood ("[alcohol] represents two aspects of what it means to be an adult - privileges and relaxation," #8 male19).

Unlike Feinberg et al.'s (1990) research, our respondents did not readily acknowledge outside concerns. Specifically, our participants did not identify religious or political themes and references to a career were not one of the dominant themes. Surprisingly, only 30% of all informants made some reference to having a career, and the impending nature of it was not always viewed positively ("Most adults work five days a week not because they enjoy their jobs, but they work to make money for themselves and their family," #24 male19, "This is what I dread about growing up, becoming an adult and entering the work world," #7 fem20). Careers were seen as a survival mechanism.

Traditionally, college students have been heavily targeted by marketers. Yet, is this population fully equipped physically and psychologically to handle the responsibility of some of their offerings? As the results illustrate, there are numerous points of vulnerability for college students, all with the potential for consumer behaviors with negative consequences such as excessive spending leading to increased financial debt, and the consumption of (potentially harmful) products aimed at both symbolizing and managing identity transformation. These findings highlight the importance of furthering our understanding of these susceptible consumers as well as the development of ethical and socially responsible marketing practices.

#### REFERENCES

- Clausen, John A. (1986), *The life course: a sociological perspective*. Englewood Cliffs, N.J.: Prentice-Hall.
- Feinberg, R. A, S. J. Yoon, L. Westgate, C. Trappey, J. Monger, and P. & Raphael Smith, D. (1990),

"A Conception of Consumer Identity," *Advances in Consumer Research*, 17, 380-85.

Lash, Scott, Bronislaw Szerszynski, Brian Wynne, University of Lancaster. Dept. of Sociology, and Centre for the Study of Environmental Change (1996), *Risk, environment and modernity: towards a new ecology*. London: Sage.

O'Donnell, Kathleen A and Daniel L Wardlow (2000), "A Theory on the Origins of Coolness," *Advances in Consumer Research*, 27 (1), 13-18.

Pechmann, Cornelia, Linda Levine, Sandra Loughlin, and Frances Leslie (2005), "Impulsive and Self-Conscious: Adolescents' Vulnerability to Advertising and Promotion," *Journal of Public Policy & Marketing*, 24 (2), 202-21.

For further information contact: Natalie Wood; Department of Marketing; Saint Joseph's University; 5600 City Ave; Philadelphia PA 19131; Tel: 610-660-3452; Fax:610-660-3239;Email: nwood@sju.edu

**THE IMPACT OF INTERRUPTION ON THE CONSUMER DECISION MAKING PROCESS**

Rosellina Ferraro, University of Maryland  
Olga Dorokhina, University of Maryland  
Kurt Carlson, Duke University

**ABSTRACT**

Everyday life requires that we make choices. Sometimes we are lucky enough to be able to consider the information without interruption before arriving at a choice. However, many times the decision making process is interrupted by unrelated external events, for various lengths of time, and at different stages of the process. We are interested in understanding how such interruptions alter the decision making process.

Prior research in the areas of memory and human performance suggest that interruptions are often detrimental. For example, interruptions tend to increase processing time and error rate (Cellier and Eyrolle 1992). However, interruptions can also be beneficial; short breaks may have positive effects on performance in simple tasks (e.g. repetitive work) (Speier, Valacich, and Vessey 1999; Zijlstra et al. 1999).

Little is known about how disruptions influence consumer choice processes. In particular, none of the studies that have examined interruptions in consumer decision making (e.g., Moe 2006; Xia and Sudharshan 2002), have explored how they affect ongoing choice processes, where new information is encountered and evaluated en route to constructing a preference. As a first step in this direction, we examine the role of interruptions on predecisional choice processing. Our primary focus is the affect that interruptions have on predecisional distortion, which is the pre-choice biasing of attribute evaluations to favor whichever option is currently preferred (Carlson, Meloy, and Russo 2006).

We track consumers' choice processes using three questions that have been applied in previous studies (e.g., Carlson and Pearo 2004). Briefly, each participant examines five serially presented attributes for two restaurants and picks the restaurant they prefer. After reading each narrative attribute, participants answer three questions: (i) an evaluation of the attribute's diagnosticity, (ii) which restaurant is currently preferred or "leading" based on all the information seen so far, and (iii) by how much it is leading. Predecisional distortion is calculated from participants' responses to these questions using the approach established by Russo, Meloy, and Medvec (1998). This approach yields a statistic that measures

the extent to which consumers bias their evaluation of each attribute to support the currently leading option.

There is reason to believe that distortion may decline as a result of an interruption to the choice process. Distortion requires a leader toward which consumers distort new information. However, if interruption causes consumers to forget their leader or to lose ownership in it, then distortion will decline as a result of interruption. Moreover, these accounts suggest that distortion should decline with length of the interruption. These predictions are consistent with work on backward inhibition (Mayr and Keeler 2000), which finds that forcing an individual to postpone a task requires inhibition that makes it difficult to resume the postponed task.

Other research suggests distortion may increase as a consequence of an interruption. Specifically, an impediment to achieving a goal causes the goal to become more salient, resulting in greater attempts to achieve the goal when goal-oriented behavior is subsequently permitted (Chartrand and Bargh 2002). Thus, if distortion is driven by a processing goal (e.g., to create separation between the options), then an interruption should cause the goal to increase in activation, resulting in increased distortion after the delay.

An initial study was run to examine how interruption of the decision making process affects predecisional distortion. Subjects engaged in a decision making task during which they were interrupted and asked to engage in a non-related task (i.e., work on a word search puzzle), after which they were returned to the original decision making task. Participants were provided attribute information and asked to make a choice between two restaurants based on this information. They were told that at some point during the decision making task they might be interrupted and asked to complete a word search puzzle. Further, they were told that the point at which they would be interrupted and for how long would be determined randomly.

For the decision making task, participants were presented with information about two restaurants on various attributes (i.e., service, appearance, parking, desserts, and menu). They were told to examine each



piece of information carefully and make a decision between the two restaurants. The interruption occurred after the third attribute, leaving two attributes on which to assess post interruption distortion (i.e., the fourth and fifth attributes). The length of the interruption took three levels: none, one-minute, five-minutes. To ensure that the total time spent on the choice and puzzle tasks combined was approximately the same across conditions, the control group (no interruption) worked on the puzzle for five minutes after completing the choice. Participants in the one-minute condition worked on the word search puzzle for one minute, finished the choice, and then worked on the word search for another four minutes. Participants in the five-minute interruption condition worked on the puzzle for five minutes after the third attribute and then finished the choice task.

Distortion on the post-interruption attributes was the dependent variable. The results indicate that distortion increased and then decreased with increases in the interruption (quadratic effect,  $p = 0.07$ ). The distortion levels for the control group serves as the baseline level ( $M_0 = 0.47$ ). Participants in the one-minute condition experienced the most

post-delay distortion ( $M_1 = 1.10$ ). This was marginally significantly different from the no-delay condition ( $p = 0.07$ ). Participants in the 5-minute delay condition exhibited less distortion than the one-minute delay group but more distortion than the baseline control group ( $M_5 = 0.71$ ), although these differences were not statistically significantly different.

These results suggest that interruptions do affect the choice process. Shorter interruptions seem to increase distortion, but as the length of the interruption increases the amount of distortion begins to decrease. Future studies will examine how the complexity of the product, duration of the interruption, and individual differences such as need for control or field dependency may play a role in the post-delay distortion.

For further information contact: Rosellina Ferraro; Assistant Professor of Marketing; Robert H. Smith School of Business; 3309 Van Munching Hall; University of Maryland; College Park, MD 20742-1815; 301-405-9664 TEL 301-405-0146 FAX; rferraro@rhsmith.umd.edu; <http://www.rhsmith.umd.edu>

### How Does Persuasion Knowledge Influence Consumer Evaluation Of Brands?

Mei-Ling Wei, Ryerson University  
Eileen Fischer, York University  
Kelley Main, York University

#### ABSTRACT

Studies have shown that the activation of persuasion knowledge can attenuate the effectiveness of agent attempts at persuasion. However, most of these studies have taken place in settings where consumers face agents in relatively overt selling functions (e.g., salesclerk, retailer). As such we have little understanding of the influence of persuasion knowledge in the many instances where consumers face brands as agents. This research begins to

explore the underlying mechanisms of activated persuasion knowledge in a brand setting. Results from two experiments support the hypothesis that psychological reactance mediates the influence of activated persuasion knowledge on brand evaluations.

For further information contact: Mei-Ling Wei,  
Ryerson University

## Practice, Perceived Quality and Consumer Choice

Kyle B. Murray, University of Western Ontario  
Kersi Antia, University of Wisconsin, Madison  
Jianping Liang, University of Western Ontario

### ABSTRACT

It is not uncommon in our daily lives to find that the more we practice and learn to use a product, the more we tend to prefer it over competing alternatives. This type of skill acquisition has been recognized as a form of human capital that can affect consumer choice (Johnson, Bellman, & Lohse 2003; Murray & Häubl, 2003, 2007; Stigler & Becker 1977; Ratchford 2001; Wernerfelt 1985). In this paper we examine the relationship between practice, perceptions of product quality and consumer choice.

The quality of a product is an important determinant of whether or not the product will be accepted by consumers. Parasuraman, Zeithaml & Berry (1985) define quality as the product's ability to meet the expectations and satisfy the needs of the customer. Implicitly, this means that if you cannot use the product, it is not a quality product. Regardless of the product's quality and its freedom from defects, if a consumer does not possess the prerequisite skills, the product is of little utility to the consumer. Therefore, quality is a function of usability (i.e., whether you are able to use it), yet usability judgments require use.

Previous research has found that consumers prefer specific online stores, even though the Internet greatly decreases the cost of information search and other switching costs (Johnson et al. 2003). Johnson et al. find a positive relationship between the rate of learning and the probability of purchasing – repeated consumption or use of a product results in a (cognitive) switching cost that increases the probability that a consumer will continue to choose the same product over competing alternatives (Murray & Häubl 2007). Johnson et al. (2003) describe this phenomenon as “cognitive lock-in”. Murray & Häubl (2007) report three studies examining the influence of consumer learning and skill automation on preferential choice. Their results indicate that consumer preference is influenced by the ease of use of the product and usage errors made when learning to use the product.

We predict that products that are easier of use, as a result of practice, should be perceived as having higher quality, which in turn should lead to a higher probability of that product being chosen. The higher probability of being chosen leads to a higher

probability of being used and a higher probability that the product becomes easier to use. In other words, practice can positively influence perceptions of quality and choice. Perceived quality and choice have a reinforcing effect on each other. To date, few studies have investigated the change in consumers' perceptions of quality over time and, to our knowledge, none have considered the mutually reinforcing effect between perceived quality and choice.

**The Study.** Two online stores were designed specifically for this study based on an actual online store for a large supplier of office supplies, business machines, and office furniture. The two online stores differed only in their navigation features: one uses pull down menus and the other uses radio buttons. The stores were given the nominal names of A and B. They were pre-tested and found to be equivalent on a number of relevant dimensions. A sample of undergraduate students (n=125) completed seven shopping trips by choosing one of the two competing online stores after having been exposed to both stores once. We counterbalanced the exposure order of both stores in the first two shopping tasks. We examined the relationship between consumer learning over time and preferential choice. We specified and estimated an individual-specific regression model that tracked shopping task completion time, relative quality perceptions, and shopping site choice over each of the seven purchase occasions, while controlling for subject-specific traits and demographics, such as technology comfort, need for cognition, need for change, decision style, age, gender, and native language.

The results indicate that if a store is chosen on the previous shopping task, that store is more likely to be chosen again in the current shopping task; if the time taken in a store is longer in the previous shopping task, that store is less likely to be chosen in the current shopping task; if the quality perception of Store A is higher than that of Store B in the previous shopping task, the quality perception of Store A is higher than that of Store B in the current shopping task; if the current time taken is longer in Store B, the quality perception of Store A is higher than that of Store B on the current shopping task.

More importantly, we find a reinforcing effect between quality perceptions and store choice: if the perceived quality of Store A is considered lower than that of Store B in the previous shopping task, Store B is more likely to be chosen in the current shopping task; if Store B is chosen, the perceived quality of Store A is considered lower than that of Store B in the current shopping task. [809 words]

#### REFERENCES

- Johnson, E. J., Bellman, S., & Lohse, G. L. (2003). Cognitive Lock-In and the Power Law of Practice. *Journal of Marketing*, Vol. 67, 2 (April), 62-75.
- Murray, K. B., & Häubl, G. (2003). Skill acquisition and interface loyalty: A human capital perspective. *Communications of the Association for Computing Machinery*, 46(12), 272-278.
- Murray, K. B. & Häubl, G. (2005). Explaining cognitive lock-in: The role of skill-based habits of use in consumer choice. Unpublished doctoral dissertation, University of Alberta, Edmonton, AB.
- Murray, K. B., & Häubl, G. (2007, in press). Explaining cognitive lock-in: The role of skill based habits of use in consumer choice. *Journal of Consumer Research*, 34(1).
- Murray, K. B. (2005). Experiencing quality: The impact of practice on customers' preferences for and perceptions of electronic interfaces. In S. Krishnamurthy (Ed.), *Contemporary Research in E-Marketing* (pp. 130-148). Hershey, PA: Idea Group Publishing.
- Newell, A., & Rosenbloom, P. S. (1981). Mechanisms of Skill Acquisition and the Law of Practice. In J.R. Anderson (Ed.), *Cognitive skills and their acquisition* (pp. 1-55). Hillsdale, NJ: Erlbaum.
- Parasuraman, A., Zeithmal, V.A., & Berry, L.L. (1985). A Conceptual-Model of Service Quality and Its Implications for Future Research. *Journal of Marketing*, 49(4), 41-50.
- Ratchford, B. T. (2001). The Economics of Consumer Knowledge. *Journal of Consumer Research*, 27 (March), 397-411.
- Stigler, G. J., & Becker, G. S. (1977). De Gustibus Non Est Disputandum. *American Economic Review*, 67, 76-90.
- Wernerfelt, B. (1985). Brand Loyalty and User Skills. *Journal of Economic Behaviour and Organization*, 6, 381-385.

For further information contact: Kyle B. Murray, Richard Ivey School of Business, University of Western Ontario, 1151 Richmond Street N, London, Ontario, Canada, N6A 3K7.

## The Single Category Implicit Association Test (SC-IAT) as a Measure of Implicit Consumer Attitudes

Ross B. Steinman, Widener University  
Andrew Karpinski, Temple University

### ABSTRACT

Consumer researchers have dedicated considerable attention to aspects of consumer behavior that are deliberate, conscious, and intentional. However, relatively limited attention has been paid to aspects of consumer behavior that operate outside of conscious awareness. This is primarily a result of the lack of reliable and valid measures in the consumer domain. Measures of indirect consumer attitude are not a novel concept in consumer research, but measurement weaknesses have constrained their expansion. Consequently, the usage of these measures has been limited to the applied sector. However, the zeitgeist in social psychology has spurred a resurgence of interest in measures of implicit attitude in consumer research. Increasingly, consumer researchers have asserted that automatic or nonconscious processes may operate on individual's attitudes, judgments, and behaviors (Bargh, 2002). Recently, the Implicit Association Test (IAT) (Greenwald, McGhee, & Schwartz, 1998), a widely used measure of implicit attitudes in social psychology, has been adapted for use in consumer research and empirically examined (Brunel, Tietje, & Greenwald, 2004; Maison, Greenwald, & Bruin, 2004). In addition, a similar measure, the Single Category Implicit Association Test (SC-IAT) (Karpinski & Steinman, in press), has been developed. Results from studies in sundry social psychology attitude domains suggest that the SC-IAT could be a viable measure for examining implicit attitude. Future studies are needed to determine the strengths and weaknesses of the SC-IAT as a measure of implicit consumer attitude.

The goal of these studies was to evaluate the SC-IAT, an association-based measure of consumer attitudes. The current studies represent the first attempt to extend the validity of the SC-IAT into the consumer domain. Three studies examined the utility of the SC-IAT using the consumer objects of Coca-Cola/Pepsi-Cola, the Philadelphia Inquirer, and the Gap clothing brand, respectively. In each study, participants were tested in groups of up to two at a time. Each participant was seated at a desk with desktop computer using MediaLab and Direct RT software. All tasks were presented on the computer and all participants first completed the SC-IAT measure followed by the explicit attitude measures.

The SC-IAT consisted of two stages. In the first stage, (brand + good) brand pictures and good words were categorized on the z key, and bad words were categorized on the 2 key on the numeric key pad. In the second stage, (brand + bad) good words were categorized on the z key, and brand pictures and bad words were categorized on the 2 key on the numeric key pad. Each stage consisted of 24 practice trials immediately followed by 72 test trials. Twenty-one target words were used for each of the evaluative dimensions and five target pictures were selected to be associated with the brand. Within each category, words and pictures were selected randomly without replacement. Each target word/picture appeared centered at the screen with category reminder labels appropriately positioned on the left or right sides of the screen. The target word remained on the screen until the participants responded or for 1500 ms. If participants failed to respond within 1500 ms, a reminder appeared for 500 ms. Following each response, participants were given feedback regarding the accuracy of their response. A green O in the center of the screen for 150 ms followed correct responses; a red X in the center of the screen for 150 ms followed each incorrect response.

The primary analyses performed for Study 1, Study 2, and Study 3 were uniform. First, an indicator of the SC-IAT's reliability was calculated. Each SC-IAT was divided into thirds and a SC-IAT score was calculated separately for each third of the trials. A Cronbach's alpha computed on these three scores revealed the internal consistency. Second, correlational analyses were used to assess the relationship between the SC-IAT and explicit attitude. Third, logistic regression was used to analyze participants' purchasing choice in various consumer situations. A series of logistic regressions were performed to assess the separate effects of the SC-IAT in addition to the predictive ability of the SC-IAT when controlling for explicit attitude.

In Study 1, the following levels of internal consistency were found:  $\alpha_{\text{Coca-Cola}} = .58$  and  $\alpha_{\text{Pepsi-Cola}} = .71$ . Coca-Cola and Pepsi-Cola SC-IATs correlated with explicit soda measures and predicted soda choice. In Study 2, a reasonable level of internal consistency for the Philadelphia Inquirer SC-IAT was found:  $\alpha_{\text{Philadelphia Inquirer}} = .79$ . However, the Philadelphia Inquirer SC-IAT did not correlate

with explicit attitude measures. The Philadelphia Inquirer SC-IAT showed some evidence of predicting newspaper choice when entered separately into the logistic regression equation, SCAT,  $\chi^2_{\text{WALD}}(1) = 2.57$ ,  $p = .11$ . When entered simultaneously with explicit attitude, the SC-IAT continued to show some evidence of predicting prospective newspaper choice,  $\chi^2_{\text{WALD}}(1) = 2.93$ ,  $p = .09$ . In Study 3, the following level of internal consistency was found:  $\alpha_{\text{Gap}} = .65$ .

Similar to Study 2, the Gap SC-IAT did not correlate with explicit attitude measures. Further, when entered into the logistic regression with and without explicit attitude, the SC-IAT did not predict consumer behavior. However, a secondary analysis revealed an interactive effect of the SC-IAT and explicit attitude in predicting behavioral intentions,  $\chi^2_{\text{WALD}}(1) = 4.11$ ,  $p = .04$ .

The current studies provide some support that consumer behavior research and theory can benefit from the introduction of the SC-IAT into the consumer domain. Previous research has demonstrated that the SC-IAT is a reliable instrument in social domains. In each of these three consumer studies, the SC-IAT showed reasonable levels of reliability. Although the SC-IAT was not related to explicit attitude in Study 2 and Study 3, this is consistent with what has been found in the literature. Research has showed mixed evidence of the relationship between implicit and explicit attitude measures (Fazio & Olson, 2003). Also, the SC-IAT showed some evidence of predicting behavioral intentions above and beyond explicit attitude

measures. Thus, it appears the SC-IAT could add to the specificity of prediction of consumer behavior. The potentiality of the SC-IAT in consumer research is discussed.

#### REFERENCES

- Bargh, J. A. (2002). Losing consciousness: automatic influences on consumer judgment, behavior, and motivation. *Journal of Consumer Research*, 29, 280-285.
- Brunel, F. F., Tietje, B. C., & Greenwald, A. G. (2004). Is the implicit association test a valid and valuable measure of implicit consumer social cognition? *Journal of Consumer Psychology*, 14, 385-404.
- Fazio, R. H., & Olson, M. A. (2003). Implicit measures in social cognition research: their meaning and use. *Annual Review of Psychology*, 54, 297-327.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: the implicit association test. *Journal of Personality and Social Psychology*, 74, 1464-1480.
- Karpinski, A., & Steinman, R. B. (in press). The single category implicit association test (SC-IAT) as a measure of the evaluative associations with a single attitude object. *Journal of Personality and Social Psychology*.
- Maison, D., Greenwald, A. G., & Bruin, R. H. (2004). Predictive validity of the implicit association test in studies of brands, consumer attitudes, and behaviors. *Journal of Consumer Psychology*, 14, 405-415.

**Category Versus Branded:  
Examining The Effectiveness Of The Direct-To-Consumer Advertising In The Pharmaceutical Industry**

Sooyeon Nikki Lee-Wingate, Rutgers University  
Ying Xie, Rutgers University

**ABSTRACT**

Direct-to-consumer advertising (DTCA) refers to any advertisements that are directed to the final consumer of the pharmaceutical product. According to the Food and Drug Administration (FDA) regulations, DTC advertising can be broadly categorized into two categories: branded advertisements that promote a specific product with varying degrees of detailed information (such as comparative effectiveness information and side effects) and category-based advertisement that provides information of specific diseases to induce patients to seek help.

Direct-To-Consumer Advertising involves 3.8 billion in spending for advertising pharmaceutical products directly to customers through television, radio, print, the Internet, and other media (Elliott, 2004). This activity was stimulated in 1997 by liberalization of regulations of the Food and Drug Administration, particularly related to broadcast media. On a global scale, only the U.S. and New Zealand permit DTCA. Promotional spending by pharmaceutical manufacturers grew 74% between 1997 and 2001, whereas the research budget grew by only 59% in the same period (Richardson and Luschinger 2005). The stakes are high.

The question remains whether this still relatively new arena of communication between the pharmaceutical industry and general public (potential patients and users of prescription drugs) is utilized in the most effective and efficient way. There is some research documenting the effectiveness of general DTCA by increasing the market size, citing its role of health education and providing relief information for the formerly ignorant consumers (Iizuka and Jin 2005; Narayanan, Desiraju, and Chintagunta 2004; Rosenthal et al. 2003; Xie and Krishnamurthi 2004). However, some recent research (Wosinska 2005) documents that the branded DTCA does not necessarily promote the compliance or the commitment to the advertised brand or has much economic impact at all. Adding to this confusion, no research to date has examined the roles of the different types of DTCA in the way they are perceived by the general public. Filling this void, the current research aims to combine the analyses of field data and the experimental research to examine the

consumers' perceptions of the two types of DTCA, drawing from theories of diagnosticity and processing fluency. We aim to develop a theoretical framework that delineates specific conditions when the effectiveness of one type prevails over the other in terms of inducing higher intentions to schedule doctor visits for the disease presented in the ads.

In our theoretical framework, there are two main variables that interact to produce our results. The first one relates to the diagnosticity and the second to accessibility or processing fluency. We note that there is a wide range of symptoms that can be mentioned in DTCA, and that the degree of specificity between a symptom and the disease differs. For example, 'tiredness' or 'lack of appetite' can be due to many different diseases (or no disease at all), whereas 'having suicidal thoughts' may be more specifically due to a particular disease such as depression. Since this degree may help diagnose the diseases more efficiently, we term this as diagnosticity of symptoms and measured it for each symptom in our pretests for various diseases such as migraines, depression, restless legs syndrome, seasonal allergy, and acid reflux disease. Secondly we focus on the fact that the number of these symptoms mentioned in DTCA can vary. According to theories of accessibility or processing fluency, we hypothesize the difference in whether four symptoms (versus eight symptoms) are shown in DTCA.

Our first experimental study employed a 2×2×2 between-subjects full factorial design with the following three factors manipulated: the type of DTCA (branded vs. category-based), the diagnosticity of the mentioned symptoms (high vs. low), and the number of the mentioned symptoms (high of 8 vs. low of 4). One hundred sixty participants from a large urban university in the northeast were shown two versions of a print ad for depression, and asked as the main dependent variable how likely it will be for them to call their doctor to schedule an appointment to discuss depression, on a 1-9 scale where the higher number corresponds to the higher intentions. The list of symptoms varying in diagnosticity were collected from current DTCA and the sources in the pharmaceutical industry and included the following (from high diagnosticity to low, based on separate pretests on the same

population): thoughts of suicide, feelings of guilt, feelings of hopelessness, decreased ability to concentrate or make decisions, decreased pleasure, feeling tired despite lack of activity, restlessness, feelings of irritability, feelings of tension, feelings of sadness, changes in sleeping pattern, and loss of energy. High-diagnosticity conditions included symptoms from the top of this list, whereas low-diagnosticity conditions included symptoms starting from the bottom of this list.

Our results show a significant three-way interaction ( $F(1, 157) = 27.99, p = .0141$ ). In the conditions where low number of symptoms were shown in DTCA, category-based ads ( $M_{category} = 2.86$ ) are more effective than branded ads ( $M_{branded} = 1.53$ ) only when the diagnosticity of the shown symptoms was high, but branded becomes more effective ( $M_{branded} = 2.41$  vs.  $M_{category} = 1.95$ ) with the low diagnosticity. This pattern reverses for the conditions where high number of symptoms were shown, such that branded ads were more effective than category-based ads with the low diagnosticity ( $M_{branded} = 3.00$  vs.  $M_{category} = 2.04$ ), but the reverse for the high diagnosticity ( $M_{category} = 2.47$  vs.  $M_{branded} = 1.77$ ).

We are currently validating this pattern of results with a field data also for depression, which overall shows that category-based ads are more effective without considering our framework. We plan to investigate and confirm that the variables delineated in our experimental research based on our framework are the ones responsible for producing conflicting patterns witnessed in the past research. By doing so, our research will contribute to not only the DTCA research in the pharmaceutical industry, but also to the general advertising research regarding generic versus branded advertising, and the theoretical research on diagnosticity, accessibility, processing fluency and metacognition.

## REFERENCES

- Elliott, S. (2004). "With or without Vioxx, Drug Ads Proliferate. New York Times. Dec 6, p. 1.
- Iizuka, Toshiaki and Ginger Zhe Jin (2005), "The Effects of Direct-to-Consumer Advertising on Doctor Visits," *Journal of Economics and Management Strategy*, forthcoming.
- Narayanan, Sridhar, Ramarao Desiraju, and Pradeep K. Chintagunta (2004), "Return on Investment Implications for Pharmaceutical Promotional Expenditures: The Role of Marketing-Mix Interactions," *Journal of Marketing*, 68 (October), 90-105.
- Richardson, Lee and Vince Luchsinger (2005). "Direct-To-Customer Advertising of Pharmaceutical Products: Issue Analysis and Direct-To-Consumer Promotion," *The Journal of American Academy of Business*, 7 (2), September, pp. 100-104.
- Rosenthal, Meredith B., Ernst R. Berndt, Julie M. Donohue, Arnold Epstein, and Richard G. Frank (2003), "Demand Effects of Recent Changes in Prescription Drug Promotion," *Frontiers in Health Policy Research*, 6 (June), 1-26.
- Wosinska, Marta (2005), "Direct-to-Consumer Advertising and Drug Therapy Compliance," *Journal of Marketing Research*, August, 42 (3), pp. 323-332.
- Xie, Ying and Lakshman Krishnamurthi (2004), "The Impact of DTC Advertising and Physician Promotions on Treatment Incidence and Brand Choice Decisions," working paper, Rutgers Business School, Marketing Department, Rutgers University.

For further information contact: Dr. Sooyeon Nikki Lee-Wingate, Ph.D., Assistant Professor of Marketing, Rutgers Business School, Rutgers University, Ackerson Hall, Suite 300E, 180 University Avenue, Newark, NJ 07102-1897, [NikkiLee@business.rutgers.edu](mailto:NikkiLee@business.rutgers.edu)



## Virtual Brand Development

Kyle Murray, Ivey Business School, University of Western Ontario  
Robin Ritchie, Ivey Business School, University of Western Ontario  
Kashef Majid – Ivey Business School, University of Western Ontario

### ABSTRACT

The ubiquity of computers and the advent of the Internet have combined to enable consumers to shop at virtual stores, drive virtual cars, and live virtual lives. Yet the popularity of the virtual world portends some very real consequences for firms, individuals, and policymakers. It has been over 20 years since Holbrook, Chestnut, Oliva, & Greenleaf (1984) first began to study virtual environments by way of video games. Their findings illustrated that virtual environments can create hedonic experiences which lead to positive affect and pleasure (Holbrook et al. 1984). Since that time the virtual environment has changed dramatically. Electronically-mediated environments such as video games, online communities, and interactive websites not only expose consumers to entertaining experiences, they also create opportunities and risks as individuals interact with products, firms and brands in a virtual environment. The implications of this need to be considered more fully.

Even today, consumers can visit Volvo dealerships and receive a copy of a customized video game that enables them to “test drive” the company’s latest models on their computer. Many more spend hours a day in online environments, where they create their own virtual identity and buy and sell virtual products within a virtual world. Sources estimate that some 10 million Americans currently pay more than \$10 each month to subscribe to such online role-playing environments – a subscriber base that is doubling each year (Hemp 2006). Millions more visit free sites, many of which are sponsored by companies as brand-building initiatives.

The ability to interact with brands in virtual environments is new, and transcends the simple exposure to brands that occurs with product placement in films and on television. The effects of simple product placement have been well researched and include enhanced brand recall and more favourable brand attitudes (Russell 2002; Roehm, Roehm Jr., and Boone 2004; Alba, Lynch, Weitz, Janiszewski, Lutz, Sawyer, & Wood 1997). The present work extends these findings by considering the implications when consumers actually interact with the brand in the virtual world, versus simply observing it. Specifically, we explore differences in the perceptions that are formed as a result of either

interacting with a brand in a virtual environment, or simply being exposed to the brand in that environment.

Interactivity has been found to enhance marketing efforts by making messages more salient (Ariely 2000) enhancing trust in the message (Liu & Shrum 2002, Ariely 2000) and making the message source more appealing (Haubl & Trifts 2000). Previous work on interactivity has also shown that an interactive message can create positive associations in the minds of consumers with respect to both message and sender (Liu & Shrum 2002, Ariely 2000). Video games were chosen as the medium to create interactivity. The present research was designed to explore the role of interactivity itself – i.e. the consequences of exercising control over the nature of one’s experience with a brand, rather than merely being exposed to it. In this study we proposed the following hypotheses:

**H1:** Interaction with the brand in a virtual environment will lead to an enhanced belief in the performance of the product, as compared to passive exposure to the brand.

**H2:** Interacting with the brand in a virtual environment will lead to an enjoyable experience, as compared to passively viewing the brand.

### METHOD

Subjects (N = 54) were randomly assigned to one of two conditions (interactive vs. passive-viewing) in a simple two cell design. We used a video game as the virtual environment. In blocks of two subjects at a time, the subject in the interactive condition drove a car in the virtual environment while the subject in the passive-viewing condition simply watched the car being drive in a separate room. The car chosen for this simulation was a fictitious brand created for this study, subjects were given the impression that the fictitious brand was an actual brand that was about to be released into the automobile market in the next few weeks. We avoided using an existing brand to control for any potential effects of previously held attitudes towards or associations with an established brand. After the simulation, both subjects were given similar questionnaires to complete. The questionnaires contained scale measures for: pleasure arousal and dominance – PAD (Mehrabian & Russell

1974), product involvement – automobile (Bloch 1981), scepticism towards advertisement (Obermiller & Spangenberg 1998), enjoyment ( $\alpha = 0.961$ ), and brand perceptions ( $\alpha = 0.873$ ).

Our results indicated that those in the interaction condition had a much more hedonic experience ( $M = 6.45$  vs.  $3.70$ ;  $F(1,26) = 27.741$ ,  $p < 0.001$ ) than those in the passive viewing condition. Of note is that the hedonic experience had a strong mediation affect on brand perceptions and intention to buy, as illustrated in Figure 1 below.

Insert Figure 1 About Here

It should be noted these the effects of interactivity held regardless of the outcome of the interaction. Specifically, subjects that had a positive outcome in the simulation (finished top three places in the video game) did not have significantly different effects than those that had a negative outcome (finished in the bottom three places in the video game).

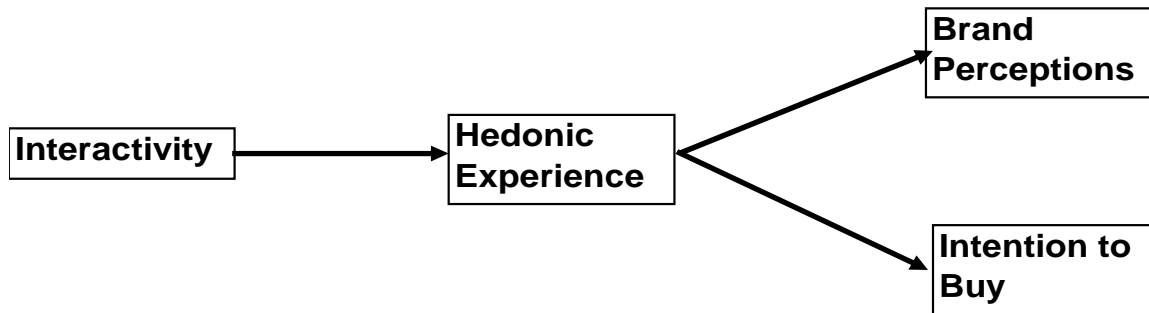
Overall our results indicate the possibility that interacting with a brand in a virtual environment creates an enjoyable experience which allows consumers to evaluate the brand in a more favourable light and may lead to positive perceptions and intentions towards the brand.

For further information contact: Kyle Murray, Ivey Business School, University of Western Ontario, 1151 Richmond Street N, London, Ontario, Canada N6A 3K7 (e-mail: kmurray@ivey.uwo.ca).

#### REFERENCES

- Alba, Joseph, John Lynch, Barton Weitz, Chris Janiszewski, Richard Lutz, Alan Sawyer, & Stacy Wood (1997), "Interactive Home Shopping: Consumer, Retailer, and Manufacturer Incentives to Participate in Electronic Marketplaces," *Journal of Marketing*, 61 (3), 38-53.
- Ariely, Dan (2000), "Controlling the Information Flow: Effects on Consumers' Decision Making and Preferences," *Journal of Consumer Research*, 27 (2), 233-248.
- Bloch, Peter H. (1981). "An Exploration Into the Scaling of Consumers' Involvement With a Product Class." In Kent B. Munroe (Ed.), *Advances in Consumer Research* (Vol. 8, pp. 61 – 65). Provo, UT: Association for Consumer Research
- Entertainment Software Association (2005), "Essential Facts about the Computer and Video Game Industry," Industry Publication.
- Haubl, Gerald and Valerie Trifts (2000), "Consumer decision making in online shopping environments: The effects of interactive decision aids," *Marketing Science*, 19 (1), 4-22.
- Hemp, Paul (2006), "Avatar-Based Marketing," *Harvard Business Review*, 84 (6), 48-56.
- Holbrook, Morris B., Robert W. Chestnut, Terence A. Oliva, and Eric A. Greenleaf (1984), "Play as a Consumption Experience: The Roles of Emotions, Performance, and Personality in the Enjoyment of Games," *Journal of Consumer Research*, 11 (2), 728-739.
- Liu, Yuping and L.J. Shrum (2002), "What Is Interactivity and Is It Always Such a Good Thing? Implications of Definition, Person, and Situation for the Influence of Interactivity on Advertising Effectiveness," *Journal of Advertising*, 31 (4), 53-64.
- McMillan, Sally J. and Hwang, Jang-Sun (2002), "Measures of Perceived Interactivity: An Exploration of the Role of Direction of Communication, User Control, and Time in Shaping Perceptions of Interactivity," *Journal of Advertising*, 31 (3), 29-42.
- Mehrabian, Albert, and James Russell (1974). *An Approach to Environmental Psychology*. Cambridge, MA: MIT Press.
- Obermiller, Carl and Eric Spangenberg (1998). "Scepticism Toward Advertising." *Journal of Consumer Psychology*, 7(2): 159-172.
- Roehm, Michelle L., Harper A. Roehm Jr., and Derrick S. Boone (2004), "Plugs versus Placements: A Comparison of Alternatives for Within-Program Brand Exposure," *Psychology & Marketing*, 21 (1), 17-28.
- Russell, Cristel Antonia. (2002), "Investigating the Effectiveness of Product Placements in Televisions Shows: The Role of Modality and Plot Connection Congruence on Brand Memory and Attitude," *Journal of Consumer Research*, 29 (3), 306-318.

Figure 1 – Model of Interactive Experience



## Sex, Youth And Beauty: An Analysis Of Advertising Appeals Targeting Women Of Different Age Groups

Kimberly A. Taylor, Associate Professor, Florida International University  
Katherine M. Beale, Undergraduate, Florida International University

### ABSTRACT

The increased number of working women and a corresponding greater involvement in purchasing decisions has led to a shift to some degree in portrayals of women found in advertising media (Jaffe & Berger 1994). However, while balanced images now can be readily found, there is also evidence that gender stereotypical images have not declined much over time (Belkaoui and Belkaoui 1976; Lindner 2004).

One possibility, though, is that, while looking at advertising images overall does not provide the expected balanced portrayal of women, analyzing them separately by demographic groups could yield important insights. Moreover, while there has been much criticism of images of women in advertising aimed at men, until recently, there was much less investigation into how women see themselves through advertising. Women of different age groups, who therefore came of age under changing expectations and norms regarding gender roles, might respond differently to advertising appeals. Thus, advertising targeting women of different generations could reflect a wider diversity of images and messages.

Through the products advertised, the media vehicles chosen, and the message appeals used, advertisers select messages they deem will be appropriate and effective for their targeted consumers. Advertising can both reflect the cultural landscape and actively shape the values of the culture as well. Yet, we could find little research addressing how advertising messages differ across age groups of women. This paper purports to begin to fill this gap. By analyzing 120 print advertisements in women's magazines aimed at different age groups, we aim to shed light on what images are being sent to teenage, young adult (20s – 30s), and adult (30s – 50s) aged women. More senior women, over aged 50, were not studied due to the paucity of magazines directed specifically at them.

### Methodology

#### Selection of Media and Advertisements

Much previous advertising research has focused on print media for its static nature and the ease of identifying specific elements within the advertisement. Moreover, it is easy to determine the

demographic target audience for most magazines, particularly those aimed at women. Therefore, print advertisements in women's magazines aimed at different age groups were chosen as the media vehicles for this study. A convenience sample of women's magazines was compiled using Advertising Age's list of the top 100 magazines based upon paid circulation (data for six months ending December 31, 2003) and total paid advertising pages (data for 1<sup>st</sup> and 2<sup>nd</sup> quarters of 2004).

For the young and older adult women segments, four magazines which appeared on both the top circulation and top ad pages lists were randomly selected, as it was thought those magazines with wide circulation would have greater impact on the culture and that these magazines would be highly representative of advertising targeting women. However, only one magazine aimed at teen girls made both lists (Seventeen). Thus, three additional magazines were selected for this segment: Teen People and CosmoGirl, which were on the highest circulation list, and Teen Vogue, because it was obviously targeting teenaged girls. The resulting list of 12 selected magazines was:

Teenage girls – Teen People, CosmoGirl, Teen Vogue, Seventeen  
Young adults (20s- 30s) – Cosmopolitan, In Style, Vanity Fair, Vogue  
Adults (30s to 50s) – Woman's Day, Ladies' Home Journal, O Magazine, Redbook

One regular issue from each magazine was purchased at the same store at the same time to eliminate any differences in advertising appeals due to geographic, seasonal, or other changes.

Next, the first ten pages of advertisements from each of the chosen magazines were selected. The first ten pages were selected because, as the "prime real estate" within the magazines, these are more expensive for advertisers and are more likely to be seen by consumers. This classification yielded a set of 120 advertisements targeting the three age groups.

#### Coding of Advertisements

The intent of this research was to compare both the types of products advertised and the advertising appeals used across the age groups. Upon a cursory review of some of the advertisements and general

knowledge of product classifications, the authors developed a coding scheme with five general product types:

- Appearance- products/services designed to enhance the appearance of the consumer
- Need- products/services that fulfill one of the consumer's basic needs
- Functional- products/services that are not essential, yet serve a practical purpose
- Pleasure- products/services designed for the enjoyment of the consumer
- Enrichment- products/services that add meaning or fulfillment to the consumer's life

Two coders independently coded all of the advertisements according to the primary function or need served by the main product in the advertisement, according to the coding scheme above. Finally, two coders also classified the specific appeals used in the advertising based upon the ad appeal classification system developed by Khairullah and Khairullah (2002), who delineated 32 different types of ad appeals, such as Beauty, Individualism, Safety, Uniqueness, and Sex.

#### Research Propositions

- P1:** The number of appearance-based products will decrease as the age of the targeted consumer increases.
- P2:** Advertising appeals used will differ across age groups.

#### Results

The first proposition was supported. The percentage of advertisements for appearance-based products decreased from 90% of total products advertised to teens and 85% for young adult to only

68.5% of advertisements for the oldest segment of women studied. There was also a difference in advertising appeals used for each of the three groups. Beauty and Social Status appeals were the most frequently used appeal for Teens (together accounting for nearly half, 17/40, of the advertisements aimed at this group). Social Status appeals were also important to the young adult segment, as were appeals to Youth, each with 6/40 ads, but Sex appeals were by far the most frequent targeted to the young adult segment (13/40 ads for this segment). Finally, appeals to Uniqueness were the most frequently used for the older segment (8/40 ads), followed by appeals to Beauty, Effectiveness, and Individuality (each with 5/40 ads). Interestingly, the ads targeting the older segment of adult women rarely used appeals to Youth (3/40), Sex (4/40) or Social Status (1/40).

#### REFERENCES

- Belkaoui, Ahmed and Janice M. Belkaoui. (1976). "A Comparative Analysis of the Roles Portayed by Women in Print Advertisements: 1958, 190, 1972," *Journal of Marketing Research*, 13, 168 – 172.
- Jaffe, Lynn J. and Paul D. Berger. (1994). "The Effect of Modern Female Sex Role Portrayals on Advertising Effectiveness," *Journal of Advertising Research*, 34 - 41.
- Lindner, Katharina. (2004). "Images of Women in General Interest and Fashion Magazine Advertisements from 1955 to 2002," *Sex Roles*, 51, 409-421.
- Khairullah, Durriya H.Z. and Zahid Y. Khairullah. (2002). "Doominant Cultural Values: Content Analysis of the U.S. and Indian Print Advertisements," *Journal of Global Marketing*, 16, 47-70.

## My Kind Of Brand: Exploring Brand Personality Projection Through Morphing

Faber, Ronald, University of Minnesota  
Duff, Brittany, University of Minnesota  
Lutchyn, Yuliya, University of Minnesota

### ABSTRACT

Over the years, the source variables most frequently tied to advertising have been physical attractiveness and likeability. These are factors that play a large role in the use of celebrities and attractive, airbrushed models in advertising. Occasionally, however, advertisers have relied on more ordinary models to influence consumers via mechanisms such as perceived similarity. Research has shown that a factor as simple as name similarity can influence subjects' liking, compliance, and behavioral action.

A particularly extreme form of similarity exists when one has a genetic relationship with another, which is detected through observation of visual cues (referred to as phenotype matching). Humans often use visual facial cues to determine phenotype matches. This recognition generally occurs at an implicit rather than explicit level. Recently, work in several fields have begun to explore phenotype matching by showing people images in which their face has been morphed with an unrelated person. Studies have found that people exhibited greater trust in an on-line partner when the partner's photo was morphed with the subjects own face than when it was morphed with another person. Vote preference has also been found to be influenced by being exposed to photos of candidates that have been morphed with the respondents.

While not yet common, this technology has created the ability to utilize phenotype similarity between the consumer and a model in an ad. Advertising has already used morphing in the creation of the current Betty Crocker image. She is a morphed composite of the photos submitted by 75 different contest winners. This was done to create a spokesperson everyone could relate to and perceive as similar to them. Current technology now makes it possible to take this even further and morph an image of an individual consumer with a model and deliver it to that consumer.

At the implicit level, it is unclear exactly how and why self morphing will influence consumers' attitude toward a brand. One possibility is that it may alter the likelihood of the consumer comparing or contrasting the brand with their own self-image. Some psychological research suggests that if they

initially implicitly associate themselves with the brand, they may assimilate their own attributes with that of the brand; while an initial indication of not being similar may lead to a comparison process where they differentiate the brand from who they are.

To examine this, an exploratory study was conducted. A two phased study was used for this purpose. To gain photos for the morphing, subjects in an initial study were told they were participating in a multi-university investigation of social networking websites. They had a digital photo of themselves taken and filled out a personality questionnaire. They were told that students at another university would view several photos and make personality assessments and choices based on these. After completing this, subjects were offered the opportunity to sign up for a study involving advertising that would take place in the following week.

A week later in the second phase, participants saw a couple of ads including one for an unknown brand of face wash. This ad featured a shoulders-up shot of a model (matched to participant by gender). Within gender, subjects were assigned to one of three conditions of this ad. In one condition the model appeared naturally with no morphing done. There was also a self-morph condition where the models photo was morphed with the subjects own picture and an other-morph condition where people saw a photo of the model that was morphed with another participant. Morphing was done using MorphX freeware at a 60:40 ratio. Previous research has found this to be an optimal level of morphing that is virtually undetectable by subjects at an explicit level.

After looking at the ad, participants filled out a questionnaire that included a thought-listing question, and items assessing ad attitude, brand attitude, brand personality, and purchase intention. The brand personality question used the same traits as they had used in assessing their own personality the week before. A total of 106 subjects (50 males and 56 females) completed both parts of the study.

To examine the possible transferring of self-traits to the brand, correlations between self-ratings on each personality trait and brand personality ratings for the brand on that trait were correlated. Separate

correlations were run for subjects in each condition. Two traits, masculine and feminine were significantly correlated in all three conditions. Aside from these, in the self-morph condition, significant positive correlations were found between self and brand for an additional 7 personality traits and 2 others approach significance. All showed a positive correlation between self-traits and brand-traits. In the other-morphed condition, 5 attributes (aside from masculine and feminine) yielded significant correlations, but all were negative correlations. Finally, in the non-morphed condition, only 2 attributes (other than masculine and feminine) were significantly correlated, one in a positive direction while the other was negative.

The results suggest that morphing of a consumer with a model in an ad may lead to greater assimilation of self traits with brand traits. On the other hand, when another person is morphed with the model it seems that people may contrast themselves and the brand and see negative relationships between self traits and brand image. Work in other disciplines

has shown that perceptions of similarity may be a necessary requirement of a comparison process. This occurs at an implicit rather than explicit level. The use of self morphs with models in an ad may help to generate this implicit sense of similarity.

Results regarding attitudes toward the brand and ad are more complex. A significant gender X morphing interaction was found for attitudes. Among men, those in the other-morph condition ( $M=3.41$ ) demonstrated lower attitudes toward the ad than did those seeing the ad with either the self-morphed ( $M=3.84$ ) or non-morphed ( $M=4.28$ ) model. In contrast, women in the other-morph condition ( $M=5.00$ ) had more positive attitudes toward the ad than women in the self-morph ( $M=4.51$ ) or non-morph ( $M=4.51$ ) conditions. Possible explanations for these findings are discussed.

For further information contact: Ronald J. Faber; University of Minnesota; 111 Murphy Hall; 206 Church Street; Mpls, MN 55455; 612.626.0061; [faber001@umn.edu](mailto:faber001@umn.edu)

### Incidental Mood And Consumer Evaluations Of Price

Yuliya A. Komarova, University of South Carolina  
Kelly Haws, University of South Carolina

#### ABSTRACT

The goal of this research is to investigate if and how incidental mood impacts or perhaps even determines consumer evaluations of price. Incidental mood is defined as a low-intensity, diffuse and relatively enduring affective state that is activated prior to exposure to a stimulus (e.g., price promotion) and has neither salient antecedent cause nor significant cognitive contents (i.e., an overall good or bad feeling). While the social psychology literature offers ample evidence of incidental mood impacting social judgments (see Forgas 1995 for review), incidental mood effects in the pricing context appear to be under-investigated (Hsu and Liu 1998). The study presented here provides evidence and an insight into the processes that underlie these effects.

Price evaluations are of great importance in consumer decisions regarding what, when, where, and how much to buy (Alba et al. 1994; Gupta 1988). Typically, the pricing literature views these subjective judgments of price as evaluations that may

depend, for instance, on the last price paid, the range of prices for similar alternatives, the lowest alternative price, conscious awareness of prices, and the frame of reference for evaluating the alternative offers (e.g., see Monroe 1973, 1990 for a review). Concurrently, there is evidence to suggest that mood can influence one's evaluations of objects and situations "regardless of the relevance between the affect and the attitude object" (Petty et al. 1991). However, a direction in which mood biases judgment depends on mood valence as well as processes that underlie the effect; the extant literature provides context-specific and often conflicting theories of how mood affects judgments (Erevelles 1998). Thus, there is an obvious need for an investigation of incidental mood effects in the pricing context.

For further information, contact: Yuliya Komarova, Ph.D. Student, Moore School of Business, Marketing Department, University of South Carolina, 1705 College Street, Columbia, South Carolina 29208, E-mail: [yuliya\\_komarova@moore.sc.edu](mailto:yuliya_komarova@moore.sc.edu)



**Left Behind: The Attenuation Of Consumers' Reference Price Ranges**

James Carver, University of Arizona  
Lance Erickson, University of Arizona

**ABSTRACT**

Over the last half-century, researchers have debated the impact, if any, that odd pricing (the practice of setting prices just below a round number, such as \$4.99 instead of \$5.00) has on consumers and retailers alike. Some researchers have even questioned whether it is merely an artifact of past retail practices designed to minimize employee theft (e.g., Dunne and Lusch 2005, p. 344; Schindler and Kirby 1997). However, many scholars have found evidence to suggest that consumers often misperceive/underestimate odd prices (e.g., Schindler and Kibarian 1996; Schindler and Wiman 1989; Thomas and Morwitz 2005). These studies demonstrate that consumers sometimes fall prey to a left-digit effect, whereby consumers perceive the odd-ending price as substantially lower than a price just one cent higher.

Extant research in this area has focused almost exclusively on whether or not odd prices are perceived more attractively. The goal of this paper is to extend these ideas into the realm of reference price ranges. Much of the reference price literature suggests that individuals generate an ever-changing internal reference price based upon some form of averaging (Monroe, Della Bitta, and Downey 1977; Niedrich, Sharma, and Wedell 2001). However, others have suggested and demonstrated that internal referents need not be a single price, but a range of acceptable prices (Janiszewski and Lichtenstein 1999; Niedrich, Sharma, and Wedell 2001). This research suggests that when a target price is perceived as falling within a consumer's reference price range, it is perceived as more attractive. Similarly, as the target shifts downward in the person's range, it is evaluated more favorably (Janiszewski and Lichtenstein 1999, p. 353).

We propose that exposure to odd pricing will have an overall downward effect on a consumer's reference price range. Our research is designed to examine how odd prices influence 1) the subjective frame of reference a buyer uses in a purchasing situation (i.e., their reference price range), 2) the buyer's perception of a target price, and 3) the likelihood of future purchase and target price attractiveness. In a series of two experiments, we find intriguing evidence to suggest that exposure to odd pricing not only affects consumers' reference

price ranges, but also alters the overall attractiveness of a target price.

Experiment 1 was designed to test whether a stimulus range of odd prices would elicit a different reference price range than that of essentially the same stimulus range anchored instead by even prices (i.e., \$12.99 versus \$13.00). In addition, the study also investigated whether the upper and lower limits of a participant's reference price range affected the overall attractiveness of a target price. Using a 2 (target price) x 2 (price range manipulation) between subjects design, participants were exposed to a range of five hypothetical brands of wet-mops and prices that were either predominantly odd or even (\$8.99, \$10.00, \$11.33, \$12.00, and \$12.99 for the odd condition and \$9.00, \$9.99, \$11.00, \$11.99, and \$13.00 for the even). After exposure to the range manipulation, participants were provided with a target brand (Brand F) and one of two target prices (\$13.09 or \$13.99).

As predicted, participants' reference price ranges exhibited a left-digit effect, where participants systematically rounded down (i.e., people exposed to a range of predominantly odd prices rounded their range's upper limit towards \$12.00, while those in the even condition rounded towards \$13.00). An ANOVA model showed that the effect of stimulus range on one's reference price range was significant ( $F(1,118) = 4.22, p = .042$ ). However, neither the stimulus range, nor the interaction of the target price and stimulus range significantly affected any of four dependent measures used to assess participants' rating of a target price's attractiveness. Upon further investigation, one potential design error became evident. Thomas and Morwitz (2005) find that as the distance between two odd prices increases, the likelihood of a left-digit effect decreases. Consequently, given that the stimulus ranges may have exhibited a "crossover effect" due to the fact that some were single left-digit prices (e.g., \$8.99) and others two left-digit prices (e.g., \$11.99), the perceived distance may have been too large for the left-digit effect to surmount.

In order to overcome this potential problem, we conducted a follow-up experiment where all the prices in a stimulus range possessed the same number of left digits. Using a 3 (target price) by 2 (odd versus even price range manipulation) between

subjects design, we first tested the effect of stimulus range on reference price range. Again we find that the price range manipulation significantly predicts participants' reference price ranges ( $F(1,75) = 8.69$ ,  $p = .004$ ). This is qualified by a significant interaction of target price by reference price range ( $F(2,75) = 3.19$ ,  $p = .047$ ), because the odd/even manipulation only appears to have an effect when there are two left-digits in the prices (\$15.99 and \$20.99), not when there is a single left-digit (\$8.99). Additionally, the interaction of target price by the odd/even range manipulation significantly effected participants' recommendation to purchase the mop ( $F(2, 75) = 3.21$ ,  $p = .037$ ), and their evaluation of the target as fairly priced ( $F(2,75) = 4.02$ ,  $p = .022$ ). However, neither the interaction of the price range manipulation and target price, nor the price range manipulation alone significantly predicted participants' likelihood of purchase or their estimation of the target representing a good value.

These findings would suggest that the practice of odd pricing might increase the potential for consumers to attenuate their reference price ranges and the associated prices they deem acceptable. Therefore, while one could argue that retailers are attempting to take advantage of the consumer, the long-term effects of odd pricing may actually hurt retailers. As consumers continue to be exposed to odd-prices, one could expect that range extremes would continue to shift downward, paralleling that of the left-digit effect. Consequently, the seller who perpetuated a practice intended to camouflage his actions of siphoning money out of the consumer's wallet may find that as time passes, the veil shrouding the consumer's referent range has actually forced the retailer to sell product at increasingly lower prices.

For further information contact: James R. Carver;  
University of Arizona; Department of Marketing;  
Eller College of Business & Public Administration;  
P.O. Box 210108; Tucson, AZ 85721-0108; Phone:  
(520) 621-7485; Fax: (520) 621-7483; E-Mail:  
jcarver@eller.arizona.edu

#### REFERENCES

- Dunne, P.M., & Lusch, R.F. (2005). Retailing (5<sup>th</sup> ed.). Mason: South-Western.
- Janiszewski, C., & Lichtenstein, D.R. (1999). A Range Theory Account of Price Perception. *Journal of Consumer Research*, 25, 353-68.
- Monroe, K.B., Della-Bitta, A.J., & Downey, S.L. (1977). Contextual Influences on Subjective Price Perceptions. *Journal of Business Research*, 5, 277-91.
- Niedrich, R.W., Sharma, S., & Wedell, D.H. (2001). Reference Price and Price Perceptions: A Comparison of Alternative Models. *Journal of Consumer Research*, 28, 339-54.
- Schindler, R.M., & Kibarian, T.M. (1996). Increased Consumer Sales Response Through Use of 99-Ending Prices. *Journal of Retailing*, 72, 187-99.
- Schindler, R.M., & Kirby, P.N. (1997). Patterns of Rightmost Digits Used in Advertising Prices: Implications for Nine-Ending Effects. *Journal of Consumer Research*, 24, 192-201.
- Schindler, R.M., & Wiman, A.R. (1989). Effects of Odd Pricing on Price Recall. *Journal of Business Research*, 19, 167-77.
- Thomas, M., & Morwitz, V. (2005). Penny Wise and Pound Foolish: The Left-Digit Effect in Price Cognition. *Journal of Consumer Research*, 32, 54-65.

### **Identification With Brand Community And Brand Knowledge: Individual Determinants And Behavioural Consequences**

Kurt Matzler, Johannes Kepler University Linz, Austria  
 Todd A. Mooradian, College of William and Mary, Williamsburg, USA  
 Johann Füller, University of Innsbruck, Austria  
 Andrea Hemetsberger, University of Innsbruck, Austria  
 Elisabeth Pichler, University of Innsbruck, Austria

#### **ABSTRACT**

Brand communities, which “are based on a structured set of relationships among admirers of a brand” (Muniz and O’Guinn 2001) are becoming of increasing interest to marketing scholars and practitioners. Brand communities influence the members’ perceptions and actions (Muniz and Schau 2005), they increase knowledge sharing among the members (Brown et al. 2003), and offer the opportunities to engage and collaborate with highly loyal customers (Franke and Shah 2003). One of the central determinants of the community member’s behaviour is the identification with the brand community (IwC) (Algesheimer et al. 2005). IwC has a cognitive component (the consumer’s self awareness of the membership with the community and the perceived similarities with the community members) and an affective component (the consumer’s emotional involvement with the group, i.e. an affective commitment with the group) (Bergami and Bagozzi 2000). In this paper, we relate the IwC with brand knowledge and identify individual determinants and behavioural consequences.

#### **The role of extraversion and openness**

Within the last twenty years, consensus has emerged that the most salient aspects of an individual’s personality can be described with a five factor model, often termed the Big Five (Goldberg 1990), consisting of Neuroticism, Extraversion, Agreeableness, Openness and Conscientiousness. These five broad factors of higher order, identified in numerous empirical studies (Tupes and Christal 1992), constitute the pattern of traits across individuals and are considered the fundamental dimensions of personality (McCrae and John 1992). In this study we focus on two traits that are expected to be related to the consumer’s identification with a brand community (IwC) and to brand knowledge, namely extraversion and openness.

Extraversion is associated to traits like being sociable, gregarious, assertive, and active (Barrick and Mount 1991; Goldberg 1990). Extraverts like people and prefer large groups and gatherings (Costa

and McCrae 1992a). Therefore, we hypothesize that extraversion is positively related to the IwC (H1).

Individuals with high scores on extraversion have been characterized as socially ascendant, speaking without hesitation. Low scores, on the other hand, prefer to keep in the background and tend to let others do the talking (Costa and McCrae, 1992). Hence, we assume a positive direct relationship between extraversion and word-of-mouth (H2).

Openness to experience (which often has been labeled as intellect) is related to active imagination, aesthetic sensitivity, attentiveness to inner feelings, preference for variety, intellectual curiosity, and independence of judgment (Costa and McCrae 1992b). Individuals with high scores on openness have been described as being more curious about both inner and outer worlds. Open individuals are also more willing to entertain novel ideas and unconventional values, and they experience both positive and negative emotions more keenly than do closed individuals (Costa and McCrae 1992b). Highly open people display intellectual curiosity, creativity, flexible thinking, and culture (Dingman 1990). Therefore, we argue that openness is positively related to brand knowledge (H3).

#### **Consequences of IwC**

The strength of the consumer’s relationship with the brand community has been found to lead to positive outcomes like community engagement (i.e. the customer’s motivation to interact and cooperate with community members) (Algesheimer et al. 2005). One of the major motivations to interact with a brand community is knowledge exchange (Dholakia et al. 2004). Frequent social interactions of community members provide opportunities of learning (Fournier et al. 2001). Therefore, it can be expected that a stronger IwC is positively associated with brand knowledge (H4).

Studies on the Harley-Davidson’s Harley Owners Group (HOG) show that participation in this brand community increases the member’s affection for the Harley brand, increasing their brand commitment (Fournier et al. 2001) and making the members

evangelists. Hence, IwC should be positively related to word-of-mouth and brand loyalty (H5).

Brand knowledge captures the customer's interest in the brand and the customer's previous experience level with it (Algesheimer et al. 2005) which suggests that knowledgeable consumers are more engaged with the brand. Hence, we propose that brand knowledge is positively related to word-of-mouth and brand loyalty (H6).

### Study & Results

Data collection took place during the Volkswagen Golf GTI-meeting in Reifnitz, Lake Wörthersee, Austria in May, 25 – 28, 2006. The GIT-meeting is one of the largest car brand community meetings with more than 200,000 car enthusiasts. A self-administered questionnaire was developed and participants were asked to complete the questionnaire. As an incentive they received an energy drink. 243 usable questionnaires were collected. Openness and Extraversion have been measured with Big Five Inventory, originally developed by John and Srivastava (1999) and translated and validated into the German language by Lang, Lüdtke und Asendorpf (2001). IwC has been measured with the scale developed by Aglesheimer et al. (Algesheimer et al. 2005). Loyalty has been measured with items taken from Carroll and Ahuvia (2006), word-of-mouth was measured with items taken from Loewenfeld (2006).

The proposed relationships among the constructs have been tested using structural equation modeling with AMOS 5.0. The model shows acceptable fit (CFI = .971, TLI = .966, IFI = .971, GFI = .896, AGFI = .866, RMSEA = .050). Extraversion (AVE = .74, five items) positively influences the customer's IwC ( $\beta=.40$ ,  $p=.000$ ) and word-of-mouth ( $\beta=.17$ ,  $p=.002$ ). Openness (AVE = .61, four items) has a significant impact on brand knowledge ( $\beta=.20$ ,  $p=.002$ ). IwC (AVE = .73, five items) is positively related to brand knowledge ( $\beta=.42$ ,  $p=.000$ ), word-of-mouth ( $\beta=.45$ ,  $p=.000$ ) and brand loyalty ( $\beta=.46$ ,  $p=.000$ ). Brand knowledge (AVE .77, three items) significantly influences ( $\beta=.21$ ,  $p=.003$ ) word-of-mouth (AVE = .70, three items) and ( $\beta=.18$ ,  $p=.012$ ) loyalty (AVE .72, three items). The  $R^2$  values of the endogenous variables are: IwC ( $R^2 = .16$ ), brand knowledge ( $R^2 = .27$ ), word-of-mouth ( $R^2 = .46$ ), and loyalty ( $R^2 = .32$ ).

All proposed hypotheses have been confirmed. Hence, this study illuminates the impact of enduring individual differences on two important constructs in branding theory: IwC and brand knowledge. It has also been shown that these two constructs are related to each other and jointly influence important behavioural aspects like word-of-mouth and loyalty. Hence, this study contains contributions to the literature on personality psychology and marketing as well, as these links have not been studied before.

## The Impact Of Price Sequence On Fairness And Choice

Eric Dolansky, University of Western Ontario  
Kyle B. Murray, University of Western Ontario  
Mark Vandenbosch, University of Western Ontario

### ABSTRACT

Research studying consumer response to price has concentrated on using a single price as focus or stimulus in relation to other variables (e.g. fairness, reference price, estimations of value and quality, etc.). However, with increasing changes in the methods used to present prices to consumers, particularly over the internet, sequences or series of prices are becoming more commonplace, it is necessary to study the effect that sequences of prices have on judgments of price fairness. This conceptual paper proposes that the judgments that consumers think of as 'fairness' are very different when they are evaluating a price in isolation, versus when they evaluate a price as part of a perceived sequence.

Uncertainty is a necessary evil in making purchase decisions and when evaluating price. Whether it is because of missing information or uncertainty of value of a product, consumers must try to reduce that uncertainty in order to make shopping choices. This uncertain environment is exacerbated when prices are not viewed as stable). In effect, fluctuating prices add another level of uncertainty to purchase decisions. While it is true that nearly all prices fluctuate (e.g. to account for inflation or to move excess inventory), not all prices are perceived to fluctuate regularly (i.e. consumers do not notice the changes) or the fluctuations are predictable (e.g. a general increase in prices over time to account for inflation).

One way that consumers account for the uncertainty of prices, fluctuating or not, is to judge price fairness (Xia, Monroe and Cox 2004). Doing so involves comparing a given price with some sort of standard, such as an estimation of value, an expectation based on previous experience: in essence, a reference price. According to Xia et al (2004), the more comparable a transaction is, the greater the bearing on the judgment of fairness at hand. Further, judgments of attribution, norms, and trust all affect the fairness judgment. What is not currently incorporated are the element of sequence and series, and the role they play in choice and fairness. We propose that the judgment referred to as fairness of a price is conceptually different for a price perceived as belonging to a sequence than for a price viewed in isolation.

An initial question to ask is what standard do consumers use as a comparison to judge a price when it is perceived to exist within a sequence? The only reference point that makes sense under these circumstances is the expectation of the next price. Using either adaptation-level theory (Helson 1964) or range-frequency theory (Volkman 1951; Parducci 1965) is not adequate, as the expected next price may exist outside of the range of past prices. The trend of a sequence of prices might be such that the subsequent price is higher than the current price or any price yet observed; when viewed under the auspices of existing theory, this price would be judged as unfavourable and unfair, but as part of a sequence it makes perfect sense.

We suggest that price sequences have two components: trend and variance. A sequence of prices may or may not follow a trend, and if a trend exists it can be uni- or multi-directional, and the slope can vary. The existence of a trend is beneficial to the consumer, as it helps reduce uncertainty and provides for the creation of a future-price expectation. Therefore, when an individual price within a sequence is judged, that price is examined not for representations of value but rather for keeping its place within the trend. It is when a price violates the trend (i.e. is not at the expected level) that it will be judged most unfair.

Price sequences can also have different levels of variance; in fact, a 'static' price is just a price sequence that has no trend and zero variance. The greater the variance, the more difficult it is to form expectations of future prices. Thus the fairness of an individual price depends on whether it agrees with the observed variance to that point; as a result, greater variance of past prices allows for greater variance of future prices.

With regard to choice, however, relatively high variance is a drawback. Given the option between a retailer who prices with low variance and one whose prices are highly variable, the logical choice would be the former, as there is less uncertainty. Trend also has an impact on choice. Because the existence of a trend reduces uncertainty, simply having a trend in a price sequence makes it a more attractive choice compared with an alternative sequence without a clear trend. Prospect theory (Kahneman and Tversky

1979) would dictate that a decreasing series of prices would be more attractive than an increasing sequence, as the former involves multiple gains and the latter multiple losses to the consumer. This agrees with logic, as a decreasing series promises lower prices in the future and an increasing series suggests high future prices.

In sum, what we suggest here is that the drivers of fairness that have been richly researched in the past (see Kahneman, Knetsch and Thaler 1986; Bolton, Warlop and Alba 2003; Campbell 1999 for examples, and Xia et al 2004 for a review) lessen in importance and do not constitute the major factors in judgments

of fairness when a sequence is perceived by the consumer. Rather than comparing a price to a reference comprised of past prices (Helson 1964) or the range of past prices (Janiszewski and Lichtenstein 1999), it is the expectation of the future price created by the trend and variance of the sequence that serves as the comparison for fairness judgments. Further, vendor or retailer selection can be driven by how price sequences are employed.

For further information please contact: Eric Dolansky; Richard Ivey School of Business; 1151 Richmond Street North; London, Ontario; N6A 3K7; Canada

### How To Retain Credibility In The Case Of Product Recalls: The Role Of Linguistic Abstractness In Press Releases

Arnd Florack, University of Basel, Switzerland  
Eva Büchel, University of Basel, Switzerland

#### ABSTRACT

Press releases have been neglected in the field of marketing research (Whysall, 2004). However, a few studies have shown that press releases are important, in particular when products have to be recalled from the market because of serious product errors (e.g., Jolly & Mowen, 1985; Mowen & Pollman, 1982). An important variable that was not studied in previous research is the abstractness of language used in press releases. The language of press releases and messages in general can be concrete or abstract (Semin & Fiedler, 1988; 1991; 1992). Messages on a more concrete level are very descriptive without making strong interpretations. These messages do not provide the recipients with inferences about the described situation. In contrast, messages on a more abstract level abstain from reporting details, but provide the recipient with inferences and interpretations. In the case of press releases, for example, a concrete communication of a company could describe what the company did in detail, allowing the recipient to infer that the company acted in socially responsible manner. An abstract communication, in contrast, could directly state that the company is socially responsible. There is evidence (Fiedler & Semin, 1992; Fiedler, Semin, Finkenauer, & Berkel, 1995; Semin & Fiedler, 1989; 1991) that communicators tend to describe themselves in terms of concrete behavior and to leave it up to the recipient to make more abstract interpretations and judgments. The higher concreteness of self-descriptions is at least partly routed in communication rules and social norms (Fiedler et al., 1995). Social norms and communication rules say that a communicator should not be his or her own referee and that a communicator should be as specific and factual as possible. We suppose that recipients take these communication rules into account when evaluating the credibility of press releases. Therefore, we hypothesized that press releases are perceived as more credible when they are written in a concrete rather than in an abstract language.

However, whether the higher credibility of a press release, for example in the case of product recalls, spreads to more positive evaluations of a company should also depend on the regulatory focus of the recipients. In his regulatory focus theory, Higgins (1997) posits two different self-regulatory foci: The

regulation of behavior according to ideals, hopes, and aspirations, termed promotion focus, and the regulation of behavior according to responsibilities, duties, and security, termed prevention focus. The promotion focus emphasizes the pursuit of positive outcomes. The prevention focus is related to the avoidance of negative outcomes. It can be argued that losses (e.g., buying a product with a failure) are more relevant for prevention-focused than for promotion-focused consumers whereas misses (e.g., not buying a superior product) are more relevant for promotion-focused than for prevention-focused consumers (Florack, Scarabis, & Gosejohann, 2005; Pham & Higgins, 2005). For promotion-focused consumers, we therefore hypothesized that the increased credibility of a concrete press release spreads to more positive evaluations of a company and to a higher probability of future purchases of the company's products. However, for prevention focused consumers, we hypothesized that the effect of concreteness does not spread to the evaluation of the company and to future purchases, because we assume that prevention-focused consumers should be very sensible to product failures and that they, therefore, should not be susceptible to the enhanced credibility of a press release.

The results of two experiments provided strong support for our hypotheses. In both experiments, participants read two press releases. First, they read a press release about the introduction of a new product. Then, they read a press release that the product was recalled from the market because of product failures.

In Experiment 1, the formulation of the two press releases was either abstract or concrete and the regulatory focus of the participants was manipulated by a questionnaire and the frame of the product category while the product was held constant. Both, the press release about the introduction of the product as well as the press release about the product recall were evaluated as more credible when the formulation of the press release was concrete than when it was abstract. However, in line with the expectations, the concrete formulation led participants to evaluate the company more positively only for promotion-focused participants and not for prevention-focused participants. In Experiment 2, the same procedure as in Experiment 1 was used, but the press release about the product introduction was held

constant in all conditions. Also, a different product was presented. The results of Experiment 2 confirmed our hypotheses. The concrete press release about the product recall was perceived as more credible than the abstract press release. Furthermore, the concrete press release led to more positive evaluations of the company and to a higher probability of future purchases of the company's products for promotion-focused, but not for prevention-focused participants.

The present research demonstrates the importance of the linguistic abstractness (or concreteness) of press releases. Two experiments provided strong evidence that concrete press releases are perceived as more credible than abstract press releases. This effect of the linguistic abstractness can be explained by the communication rule that a communicator should not be his or her own referee and that a communicator should be as concrete and factual as possible in self-descriptions. This rule is obviously not only true for individuals, but also for self-communications of companies which appear mainly in press releases. If we take into account that companies tend to communicate about themselves in an abstract and positive manner (e.g., ascribing positive traits to the company), our findings have important implications for the formulation of press releases. They should be formulated in more concrete terms, leaving the positive inferences open to the consumer. However, we have also shown limitations of this technique. When participants were in a prevention focus, the increased concreteness of press releases about product recalls did not lead to more favorable views of the company and their products. For prevention-focused consumers there seems to be an "everything-or-nothing"-rule. One failure is enough to lose trust in a product.

#### REFERENCES

- Fiedler, K., Semin, G. R., Finkenauer, C., & Berkel, I. (1995). Actor-observer bias in close relationships: The role of self-knowledge and self-related language. *Personality and Social Psychology Bulletin*, *21*, 525-538.
- Florack, A., Scarabis, M. & Gosejohann, S. (2005). Regulatory focus and consumer information processing. In F.R. Kardes, P. M. Herr & J. Nantel (Eds.), *Applying social cognition to consumer-focused strategy* (pp. 235-263). Mahwah, NJ: Erlbaum.
- Jolly, D. W. & Mowen, J. C. (1985). Product recall communications: The effects of source, media, and social responsibility information. *Advances in Consumer Research*, *12*, 471-475.
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, *52*, 1280-1300.
- Mowen, J. C. & Pollman, S. B. (1982). An exploratory study investigating order effects in reporting negative corporate communications. *Advances in Consumer Research*, *9*, 215-220.
- Pham, M. T. & Higgins, E. T. (2005). Promotion and prevention in consumer decision making: state of the art and theoretical propositions. In S. Ratneshwar and D. G. Mick (Eds.), *Inside consumption: frontiers of research on consumer motives, goals, and desires* (pp. 8-43). London: Routledge.
- Semin, G. R. & Fiedler, K. (1989). Relocating attributional phenomena within a language-cognition interface: The case of actors' and observers' perspectives. *European Journal of Social Psychology*, *19*, 491-508.
- Semin, G. R. & Fiedler, K. (1991). The cognitive functions of linguistic categories in describing persons: Social cognition and language. *Journal of Personality and Social Psychology*, *54*, 558-568.
- Semin, G. R., & Fiedler, K. (1991). The linguistic category model, its bases, applications and range. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology: Vol. 2*. (pp. 1-50), Chichester, England: Wiley.
- Semin, G. R., & Fiedler, K. (1992). The inferential properties of interpersonal verbs. In G. Semin & K. Fiedler (Eds.), *Language, interaction and social cognition* (pp. 58 - 78). Newbury Park, CA: Sage.
- Whysall, P. (2004). What can we learn from retailers' news releases? A 'stakeholder engagement' perspective. *International Review of Retail, Distribution, and Consumer Research*, *14*, 31-45.
- For further information contact: Arnd Florack; University of Basel; Missionsstrasse 62a; CH-4055 Basel, Switzerland; E-Mail: arnd.florack@unibas.ch



**The Artistic Organization:  
The Influence Of Visual Art In Shaping Consumer Perceptions Of Corporate Image**

Henrik Hagtvedt, University of Georgia  
Vanessa M. Patrick, University of Georgia

**ABSTRACT**

Firms spend vast amounts of money on using art to promote corporate image through advertising, product design, or corporate collecting and sponsorship (Hoffman 2002; Margolin 1992; Martorella 1996). Indeed, this use of art in marketing is considered to be the primary means by which the “masses” get exposed to fine art (Hoffman 2002). However, extant literature provides virtually no guidance to managers regarding the strategic use of visual art for such marketing objectives. This research represents an initial attempt to measure and analyze the impact of art on corporate image.

Art may be used directly or indirectly to influence corporate image. Organizations often own corporate art collections or sponsor artists and art-events. These activities are undertaken presumably to directly influence corporate image. Art may also be used in product design, packaging and advertising. Although the objective of these activities is to influence product and brand evaluation (Hagtvedt and Patrick 2006), they presumably also have an indirect influence on corporate image.

**WHAT IS ART AND HOW DOES IT WORK?**

Numerous definitions of art exist. For the purpose of utilizing art as a strategic tool in marketing, the key stakeholders must categorize the works in question as art. We therefore define art as that which is categorized as such by the viewer (Bourdieu and Darbel 1997).

Art has historically represented a special kind of quest for excellence (Tansey and Kleiner 1996), and it is intrinsically tied to a heritage of high culture, with connotations of exclusivity, luxury, and sophistication (Hoffman 2002; Margolin 1992; Martorella 1996). We theorize that the favorable influence of art stems from the spillover of luxury and prestige onto the products, brands, and firms with which it is associated. This process is what we refer to as “art infusion.”

**STUDY 1: CONSUMER BELIEFS ABOUT THE USE OF ART IN ORGANIZATIONS**

Seventy-seven undergraduates participated in an exploratory study in which they were shown three artworks (one classical (Titian), one modern (Picasso), and one abstract (Kandinsky); styles

suggested by research on art in advertising (Hetsroni and Tukachinsky 2005)) and the logos for a variety of firms (Microsoft, Apple, Ford, Gucci, Wal-Mart, Nike, CNN, Coca-Cola, Sony, Bank of America, and MTV). Participants reported, on seven point Likert scales, how suitable each of the three artworks would be for advertisements for each of the firms. Results support the notion that firms with luxurious, expensive products (Gucci), innovative, high tech products (Apple, Microsoft) and experiential products (MTV) align better with art than do other types of firms. Further, while classical art was perceived as suitable for more traditional firms (Gucci, Bank of America), modern and abstract art was viewed as more suitable for more modern, innovative firms (Apple, Microsoft, Sony, MTV). A general finding was that participants seemed to view art as most suitable for use in advertising where it appeared to align best with the specific firm.

**STUDY 2: THE INDIRECT INFLUENCE OF ART IN CORPORATE IMAGE**

**Study 2a**

Here we contrast the influence of art on corporate image when art is used in conjunction with hedonic versus utilitarian products. Study 1 suggested that consumers expect luxurious, expensive and typically hedonic products to align better with art. However, we propose that art works harder for utilitarian products, which have more scope for change and more to gain from an alliance with art (Hagtvedt and Patrick 2006), making them appear more luxurious and leading to a more favorable view of the firm.

One hundred and eight undergraduates participated in this 2 X 2 study in which art presence (present vs. not present) and product type (hedonic vs. utilitarian) were manipulated. The stimuli were a soap dispenser and a wine bottle with an art image (Monet painting) incorporated on the front face or with no art image. Participants rated brand quality and corporate image. A 2 x 2 ANOVA on brand quality revealed a main effect for product type ( $M(\text{Soap}) = 3.82$  versus  $M(\text{Wine}) = 4.74$ ,  $F(1,104) = 10.70$ ,  $p < .05$ ) and for art presence ( $M(\text{art}) = 4.36$  versus  $M(\text{non-art}) = 3.31$ ,  $F(1,104) = 7.63$ ,  $p < .05$ ). Post hoc analysis revealed no differences between the soap dispenser with art and wine with art, while the soap dispenser without art was evaluated least favorably implying that the utilitarian product had

more to gain from the presence of art than the wine had. A similar ANOVA on corporate reputation revealed a main effect for product type ( $M(\text{Soap}) = 4.35$  versus  $M(\text{Wine}) = 4.92$ ,  $F(1,104) = 7.25$ ,  $p < .05$ ) and for art presence ( $M(\text{art}) = 5.22$  versus  $M(\text{non-art}) = 4.09$ ,  $F(1,104) = 29.98$ ,  $p < .05$ ).

### Study 2b

In this study, a painting (Mona Lisa) was presented in an advertisement for Prince Spaghetti Sauce. The independent variables were the extent to which the artwork was modified (original vs. modified) and the fit of the artwork with brand positioning (consistent vs. inconsistent). We hypothesized that a modified artwork no longer conveys the connotations of an original artwork, while the fit of the brand positioning with the ad (luxury vs. value) will magnify the effect of modification. A 2 x 2 ANOVA on brand quality revealed a main effect for modification ( $M(\text{original}) = 4.81$  versus  $M(\text{modified}) = 3.08$ ,  $F(1, 118) = 38.88$ ,  $p < .05$ ) and for positioning ( $M(\text{luxury}) = 4.58$  versus  $M(\text{value}) = 3.10$ ,  $F(1, 118) = 31.71$ ,  $p < .05$ ), and the

hypothesized modification x fit interaction ( $F(1, 118) = 7.89$ ,  $p < .05$ ). A similar ANOVA on firm reputation revealed  $M(\text{original}) = 4.68$  versus  $M(\text{modified}) = 3.86$ ,  $F(1, 118) = 15.96$ ,  $p < .05$  and  $M(\text{luxury}) = 4.43$  versus  $M(\text{value}) = 4.06$ ,  $F(1, 118) = 3.57$ ,  $p = .06$ , and the hypothesized modification x fit interaction ( $F(1, 118) = 15.05$ ,  $p < .05$ ).

### DISCUSSION

These two sets of studies support the hypothesis that visual art favorably influences corporate image. In study 3 we will investigate how corporate collection and sponsorship, direct activities undertaken by an organization, influence corporate image. In a fourth study we will examine differences in the direct versus indirect influence of art on corporate image.

For further information contact: Henrik Hagtvedt; 132 Brooks Hall; Terry College of Business; University of Georgia; Athens, GA 30602; Phone: (706) 254-6456; Email: hhagtvedt@yahoo.com

## Environmental Evaluations, Emotion Priming, And Pro-Environmental Consumer Choices

Leila Scannell, University of Victoria  
 Robert Gifford, University of Victoria  
 Christine Kormos, University of Victoria

### ABSTRACT

Cumulatively, individual consumer choices may harm the condition of the natural environment but, if ecologically conscious, offer hope for a sustainable commons (e.g., Vlek, 2000). Because consumers' behaviors are in part influenced by cognitions, a greater understanding of the attitudinal variables that predict ecological behavior can be used to promote responsible consumer choices. Perceived risk is one attitudinal antecedent of environmentally responsible action (Stern, 2000), and is known to affect consumer decisions (e.g., Hoover, Green, & Saegert, 1978; Mitchell, 1998). However, little research has investigated the relation between environmental risk perception and pro-environmental consumer choices.

Appraisal tendency theory delineates how risk perceptions can be altered by the emotional frame one has currently adopted (Lerner & Keltner, 2000). Fear enhances perceptions of risk, but anger has the opposite effect (Fischhoff, Gonzales, Lerner & Small, 2005). An emotion-priming task, therefore, could influence one's estimates of environmental risks and subsequent behavior. As well, because consumer decisions are more often based on affect than on rational cognition (Jackson, 2005), we expect that emotions will directly alter pro-environmental choices. Moreover, although consumer behavior is related to current evaluations of risk, outcome expectancies also predict behavior (Bandura, 1977). Thus, an individual who expects environmental conditions to decline may select environmental products to avoid this potential outcome, but this hypothesis has yet to be investigated.

The geographic spatial level of the evaluation is another important consideration; environmental perceptions function differently according to the spatial context (Bonaiuto, Breakwell, & Cano, 1996). For example, individuals tend to view local conditions more favourably than global conditions (the "spatial bias," Uzzell, 2000) This study's aim, therefore, was to consider the relations among pro-environmental consumer choices, mood, and environmental evaluations at different spatial and temporal levels.

### Hypotheses

**H1:** Pro-environmental consumer decisions will be negatively associated with ratings of

environmental conditions at the following four levels: current local, current global, future local and future global.

**H2:** Emotions will have differential effects on environmental ratings. Fear will decrease ratings, while anger will increase ratings.

**H3:** Emotions will have differential effects on pro-environmental choices. Fear will increase, and anger will decrease environmental choices.

### Method

One hundred and twenty participants (91 females and 28 males, mean age = 21 years, SD = 4.27) were randomly assigned to hope, fear, and anger priming conditions and asked to write a response to an emotionally framed issue (see Fischhoff et. al., 2005).

Next, the environmental futures scale was administered to assess evaluations of the local and global environment. Participants rated the current quality of 20 environmental aspects, such as "[t]he state of fisheries," in their local area and globally from 1 (very bad) to 5(very good), and then estimated the quality of the same aspects in 25 years time, from -2 (much worse) to 2 (much better). This latter subscale represented participants' environmental optimism or pessimism.

Pro-environmental consumer choices were then measured through a product preference task where participants examined a variety of products and selected one from each of 24 pairs. Product pairs were composed of two identical photos with three descriptors written beneath each, one of which was environmentally relevant. The number of pro-environmental products circled, and the number of pro-environmental descriptors explicitly listed served as two measures of product preference. Ten non-environmental distractor items were included to conceal the purpose of the study.

### Results

Participants selected an average of 9.75 (SD = 2.44) of the 14 environmentally relevant products, 6.35 (SD = 3.34) of which were explicitly chosen for an environmental reason. The environmental futures scale presented high reliability ( $\alpha = .91$ ). Mean evaluations for each of the four subscales indicate

that current local conditions were perceived as slightly greater, and current global aspects as slightly less, than “acceptable”. Participants were pessimistic about future conditions both for local and global environments.

Correlations were computed to assess whether environmental evaluations were related to pro-environmental consumer choices. Ratings of current global conditions were negatively associated with pro-environmental consumer decisions on both behavioral measures: for the number of products circled,  $r(119) = -.25$ ,  $p < .01$ , and for the number of descriptors stated,  $r(119) = -.21$ ,  $p = .02$ . Ratings on the other three subscales were not significantly related to environmental choices.

Although the mood manipulation did not appear to differentially alter environmental evaluations, a one-way ANOVA demonstrated that the mean number of environmental products circled or stated differed by condition. Participants in the fear condition chose more pro-environmental products than did those in the anger and hope conditions, and participants in the anger condition chose fewer environmental products than did participants in the fear, but not the hope condition. Group differences emerged for both behavioural measures: the number of products circled,  $F(2,116) = 6.53$ ,  $p = .002$ , and the number of environmental descriptors listed,  $F(2,116) = 4.77$ ,  $p = .001$ .

### **Discussion**

According to Uzzell (2000), local experience does not predict behavior because we focus on the

“symptoms” at the local level rather than on the underlying problem, which exists globally. Perhaps participants with negative global evaluations were more aware of world issues, and therefore more likely to recognize systemic problems, and then act. Thus, the link between global evaluations and decision-making may be mediated by awareness about global problems, and could be investigated in future research. Interestingly, future ratings were not significantly related to pro-environmental choices, which suggests that individuals are not particularly cognisant of the future when selecting products.

Consistent with previous research, emotions influenced consumer choices (e.g., Jackson, 2005). However, emotion priming did not affect participants’ subsequent environmental evaluations, perhaps because the scale measures concern rather than risk perception or optimism. Further analyses are needed to resolve this issue.

Implications for behavior-change campaigns and ecologically oriented marketing companies are that individuals who perceive the global environment negatively may be a promising target market, and that fear appeals could be used to promote pro-environmental consumer decisions. Finally, results suggest that global awareness may be an important step in the progression of a society that not only cares about the environment, but also acts to protect it.

For further information contact: Leila Scannell, Psychology Department, University of Victoria, PO Box 3050, STN CSC, Victoria, BC V8W 3P5, Canada; [scannell@uvic.ca](mailto:scannell@uvic.ca)

## Environment-Related Knowledge And Perceptions Of Current And Future Conditions: Influences On Consumer Behavior

Christine Kormos, University of Victoria  
Robert Gifford, University of Victoria  
Leila Scannell, University of Victoria

### ABSTRACT

#### Introduction

Consumers' choices to buy green, or not, can have cumulative, long-lasting environmental effects. Perceived risk from environmental hazards (e.g., Pahl, Harris, Todd, & Rutter, 2005) and personal relevance (e.g., Krosnick, 1989) have both been shown to predict increased pro-environmental behavior. However, ratings of environmental seriousness, or perceived risk, are increasingly negative as spatial level from the perceiver becomes more remote (e.g., Uzzell, 2000). Another important precondition for action is optimism, whether individuals believe the problem will improve or worsen in the future (e.g., Geller, 1995). Indeed, Weber (1999) suggests that behavioral change stems from a drive to avoid undesirable outcomes.

Through use of a mock-shopping task, and the environmental futures scale, this study examines the associations among environmentally relevant consumer decisions and ratings of current and expected future environmental conditions at the local and global levels. We hypothesized that ratings at these four levels would be negatively associated with environmental consumer choices.

Knowledge is also main precursor to attitude and behavioral change (e.g., Hines, Hungerford, & Tomera, 1987). System knowledge refers to information about ecosystems (e.g., Schalln & Holzer, 1990) or environmental problems (e.g., Hines et al.), action-related knowledge refers to the awareness of possible behavioral options for action (Ernst, 1994), and effectiveness knowledge concerns the relative benefits of different conservation behaviors (e.g., Hanna, 1995). Many studies have failed to find a relation between factual environmental knowledge and pro-environmental behavior (e.g., Maloney & Ward, 1973), and those in which stronger effects are found typically involve knowledge about relevant behavioral actions (e.g., Smith-Sebasto & Fortner, 1994). Based on Frick, Kaiser, and Wilson's (2004) findings, we expect that system knowledge will predict action-related and effectiveness knowledge but, unlike the other two types of knowledge, it will not directly influence behavior.

#### Method

Eighty students (59 females and 21 males, mean age = 20.95) from a Canadian university participated. First, preference for environmentally friendly products was measured through a mock-shopping task during which participants were shown photographs of 24 common consumer products. Every item sheet displayed two identical pictures of each product (with their product labels obscured), but three unique descriptors listed beneath distinguished their respective qualities. Participants indicated the item that they would be most likely to purchase and recorded the descriptor that most influenced their decision. Fourteen products had environment-related descriptors, and the remaining 10 products were distractor items.

Participants then completed the environmental futures scale, which measures environmental perceptions and optimism. Its 20 items encompass the aesthetic and practical quality of both the natural and built environment, as well as human ability to address related issues. Each item was assessed at two spatial levels: "my area" and "globally." Response options for assessments of the current state range from 1 (*very bad*) to 5 (*very good*) and, for the future state component (i.e., 25 years from now), from -2 (*much worse*) to 2 (*much better*). Finally, an adapted version of Frick et al.'s (2004) environmental knowledge scale, which includes 58 true/false and multiple choice questions, was administered.

#### Results

The overall internal consistency of the environmental futures scale was excellent ( $\alpha = .93$ ). Average ratings of current environmental conditions were slightly above the scale mid-point (i.e., "acceptable") at the local level and slightly below it at the global level. Average ratings of expected future change were below the scale mid-point, thus indicating pessimism, at the local level and, even more so, at the global level. A one-sample *t*-test (two-tailed) showed that the number of environmentally friendly products selected ( $M = 9.18$ ,  $SD = 2.24$ ) was significantly greater than would be expected by chance,  $t(79) = 8.69$ ,  $p < .001$ ,  $d = .97$ . Another *t*-test revealed that the mean number of environmental descriptors mentioned ( $M = 5.97$ ,  $SD = 2.87$ ) was

also significantly greater than would be expected by chance,  $t(79) = 11.35, p < .001$ .

Correlational analyses showed that, at the local level, neither ratings of current environmental conditions nor future change were significantly related to either indicator of pro-environmental behavior. At the global level, however, more sanguine ratings of current conditions were significantly associated with both fewer environmental products chosen ( $r = -.32, p < .01$ ) and fewer environmentally relevant descriptors mentioned ( $r = -.26, p < .05$ ). Optimistic views of the global environment in the future were negatively associated only with the number of environmental products chosen ( $r = -.25, p < .05$ ).

A multiple regression analysis showed that the three types of environmental knowledge explained a significant amount of variance (i.e., 23%) in the number of environmental descriptors mentioned,  $F(3,45) = 4.47, p < .05$ , but that only system knowledge explained a significant amount of unique variance in this indicator,  $t(47) = 3.59, p = .001, \beta = .48$ .

### Discussion

Most noteworthy is the finding that perceptions of global environmental conditions exerted more influence over consumer choices than did local ratings. This contradicts the common finding that local perceptions have more of an impact on behavior because of their personal relevance (e.g., Krosnick,

1989). Although current global conditions were negatively associated with both behavioral measures, global environmental optimism was only significantly related to one measure. These consumer choices, whether conscious or not, seem to be the result of a goal to improve the global environment. Perhaps poor global environmental quality is perceived to be a greater ultimate threat because it leaves little option to escape bad conditions. Alternatively, media attention to globally salient environmental problems may have increased awareness of, and concern over, such problems. Also, participants showed an overall preference for pro-environmental products.

Contrary to the findings of many (e.g., Maloney & Ward, 1973; Frick et al., 2004; Heath & Gifford, 2006), and thus to our hypotheses, factual knowledge was found to predict environmental consumer choices for one of the indicators, namely the number of environmental descriptors mentioned. This finding is puzzling given that action-oriented types of knowledge are typically found to have a stronger effect on behavior (e.g., Smith-Sebasto & Fortner, 1994; Frick et al.), and it should be the basis of further research.

For further information contact: Christine Kormos (ckormos@uvic.ca), Psychology Department, University of Victoria, PO Box 3050, STN CSC, Victoria, BC, V8W 3P5, CANADA.

## How Consumers Evaluate Products: Information Acquisition Strategy By Brand Names Or Attributes

Mototaka Sakashita, Sophia University, Japan

### ABSTRACT

Consumers constantly search for information to make better purchase decisions; however, they face overwhelming amounts of information from various kinds of sources. Due to a limited capacity for information processing, they use heuristics, or rules of thumb, and this leads them to more simplified information acquisition behaviors.

Numerous studies have identified the causing factors of such information acquisition strategies (hereafter referred as IAS), and according to the framework of Bettman et al. (1998), those factors can be classified into three categories: task characteristics, individual differences, and social context. Examples of task characteristics are task complexity (Payne 1976; Onken et al. 1985), information display format (Bettman and Kakkar 1977; Painton and Gentry 1985), and time pressure (Newman and Staelin 1971). Individual differences refer to involvement (Jacoby et al. 1978; Beatty and Smith 1987; Smith and Bristor 1994; Moorthy et al. 1997), brand loyalty (Jacoby et al. 1977, 1978), and product class knowledge (Newman and Staelin 1971, 1972; Kiel and Layton 1981; Punj and Staelin 1983; Johnson and Russo 1984). Examples of social context are marital status (Newman and Staelin 1972), social classes (Schaninger and Sciglimpaglia 1980), age (Schaninger and Sciglimpaglia 1980), and housing conditions (Schaninger and Sciglimpaglia 1980). Other factors that affect IAS include risk perception (Urbany et al. 1989) and search cost (Punj and Staelin 1983; Moorthy et al. 1997). These factors alter the way consumers search for information, which in turn can often limit and reduce the amount of information they acquire. Previous studies have focused on the factors of this information reduction, called limited IAS; however, little research has been done on their types and characteristics on product evaluation processes.

This study identifies two types of IAS, brand-based and attribute-based, to better understand the characteristics of limited IAS. Consumers using attribute-based IAS search for only certain types of information, such as price. For example, a consumer looking for a computer in a regular retail store, is engaged in attribute-based IAS when he is considering only the price and weight information of the alternatives, and ignoring all other information. On the other hand, he is engaged in brand-based IAS if he is looking for computers of only his favorite

brands. Note that he may also simultaneously engage in both attribute-based and brand-based IAS, or he may not be engaged in either.

According to Keller (1998), brand knowledge contains various types of brand associations including product-related attributes. This means that a brand name carries a relatively large, more complex set of information compared to the simple physical characteristics of the product. This is consistent with the notion of previous literature stating that brand-related information serves as "information chunks" (Jacoby et al. 1977; Johnson and Russo 1978, 1981, 1984; Biehal and Chakravarti 1982; Mazursky and Jacoby 1985; Stokes 1985). As a result, consumers tend to search brand-related information rather than price-related information when evaluating product quality (Brucks et al. 2000). Therefore, when consumers search for information in terms of brand names (brand-based IAS), they must engage in a more intensive processing. In contrast, they can ease the degree of such intensiveness when searching for information based on product attributes (attribute-based IAS).

A computer-based laboratory experiment was conducted to gather empirical evidence using the information display board method (IDB). Participants were assigned to evaluate 12 portable music players after freely acquiring product information including brand names, and their information acquisition process was automatically recorded. According to the data, they were classified into 4 groups: the Brand Loyal group using both attribute-based and brand-based IAS, the Brand Mania group using only brand-based IAS, the Variety Seeking group using only attribute-based IAS, and the Beginner group using no limited IAS.

The results indicate that consumers show differing characteristics in information processing time, amount of perceived effort, and degree of perceived task complexity, depending on which IAS they employed when evaluating alternatives. The participants in the Brand Loyal group used a longer information processing time, made less effort, and thought the task was complex. On the other hand, those in the Brand Mania group spent relatively less time, made more effort, and also thought the task was complex. Those in the Variety Seeking group also used a relatively short amount of time, but made less effort, and interestingly, they thought the task was

easy. Finally, those in the Beginner group spent the least time, but made more effort, and thought the task was complex.

This study sheds light on the importance of identifying consumers in terms of the types of IAS they use, the various combinations of attribute-based and brand-based IAS lead them to different types of information processing. The results of this study indicate that the utilization of brand-based IAS leads consumers to a unique processing manner compared to that of attribute-based IAS. The utilization of

attribute-based IAS simplifies consumers' information processing, which is consistent with the previous studies. However, that of brand-based IAS does not necessarily make information processing easier; in fact, it may make it more difficult.

For further information contact: Mototaka Sakashita, 7-1 Kioi-cho, Chiyoda-ku, Tokyo, 102-8554, Japan. Email: m-sakash@sophia.ac.jp. This work was supported by MEXT (Grant-in-Aid for Young Scientists (B), #17730265).



**Recollections And Impressions: The Role Of Forgetting In Judgments And Decision Making**

Benjamin C. Storm; University of California, Los Angeles  
Elizabeth Ligon Bjork; University of California, Los Angeles  
Jeremy Owen; University of California, Los Angeles

**ABSTRACT**

It seems reasonable to assume that the impressions we form—whether directed towards a person, a group, or a product—are informed, at least in part, by what we can remember. Furthermore, it seems reasonable to assume that manipulating the accessibility of memories that are associated with a given target should also manipulate the impressions that were originally formed on the basis of those memories. From an adaptive standpoint, however, relying on the accessibility of memories to make judgments and decisions may not be the most efficient or even valid method of doing so. Human memory is not like a computer. Memories can become more or less accessible depending on the context at hand (e.g., Smith, Glenberg, & Bjork, 1978), can be occluded by proactive and retroactive interference (e.g., Postman, 1971), and can, under certain circumstances, bear little resemblance to what occurred in reality (e.g., Loftus, 1997; Saunders & MacLeod, 2002). As such, it is quite possible that in order for decision making to be as quick and as informed as possible, our judgments and impressions should not be strictly tied to the accessibility of the memories that created them.

Storm, Bjork, and Bjork (2005) recently explored this issue by examining the role of retrieval-induced forgetting in person memory and impressions. Retrieval-induced forgetting describes the observation that retrieving a target item from memory can make other items associated with the same cue or configuration of cues become less accessible in the future than they would have been otherwise (Anderson, Bjork, & Bjork, 1994). The forgetting is believed to reflect inhibitory processes that act to reduce interference from competing memories during retrieval so as to facilitate access to the desired target of a retrieval search (see Anderson, 2003). Storm et al. (2005) wondered not only how retrieval-induced forgetting might influence what people can remember about others, but also, whether retrieval-induced forgetting might influence how people feel about others. More specifically, they wondered that if the positive or negative information about an individual were to become less accessible, would the impressions initially formed on the basis of such information be affected as a consequence. Should, for example, the positive information about an individual be forgotten, would the impression

previously formed about that individual become less positive as well.

Across three experiments, Storm et al. (2005) found that selectively retrieving neutral information describing a target individual impaired the subsequent recall of either positive or negative information also associated with that individual. Interestingly, however, the inhibition did not appear to alter the target individual's perceived likeability. In other words, the participants found the targets to be just as likeable as they did before retrieval practice, whether it was positive or negative information that had been inhibited by the practice of neutral traits. One detail of Storm et al.'s study that warrants consideration, however, is that the impressions were always measured prior to the recall test for information about the target. Had participants been asked to recall this information first, it is possible that a very different pattern of results would have emerged. More specifically, although it is possible that the inhibition of relevant information does not automatically alter previously formed judgments, to the extent that it alters what people can subsequently recall, it could alter judgments made on the basis of those subsequent recollections. Participants who just experienced difficulty remembering anything good about a target individual, for example, may find it more difficult to justify making a positive judgment of that individual.

In Experiment 1 we tested this possibility. Employing the same procedure used by Storm et al. (2005), we examined whether having participants recall what they knew about a target individual before making their judgments would provide an opportunity for retrieval-induced forgetting to affect judgments. Interestingly, whereas Storm et al. (2005) found that both positive and negative traits could be inhibited by retrieval-induced forgetting, we only found evidence of positive traits being inhibited. Although it is unclear why the effect failed to replicate for negative traits, several possible reasons are discussed. Regarding the impression ratings, participants did tend to find targets whose positive traits had been inhibited to be less likeable than targets whose positive traits had not been inhibited. As the negative traits were not inhibited, however, we should not expect a difference in impression

between the two conditions, and, in fact, no such difference was observed.

The results from the first experiment suggest that decreasing the accessibility of information may only have the capacity to alter judgments when people are asked to retrieve that information prior to making their judgments. In a second experiment, which is currently underway, we are exploring whether these dynamics extend to consumer judgments and decision making. After learning various pieces of information pertaining to a specific brand, participants are guided to retrieve a subset of that information, which should, in turn, lead to the inhibition or forgetting of the non-retrieved information. It will be interesting to see, however, how and when this forgetting will affect both participants' judgments of that brand and their

decisions regarding whether to purchase that brand. Given the results from Storm et al. (2005) and the first experiment reported here, it is possible that the inhibitory effects of retrieval-induced forgetting will only alter judgments about a brand when participants are first guided to recall what they can remember about that brand. We believe that these results will not only have important implications for the theoretical understanding of inhibition and the relationship between memory and judgment/decision making, but may also have important implications for our understanding of how consumers make decisions in the real world.

For further information contact: Benjamin Storm; Department of Psychology; University of California, Los Angeles; 1285 Franz Hall, Box 951563; Los Angeles, CA 90095; E-mail: storm@ucla.edu

**Seeing Sounds, Hearing Words: Structural Correspondences In Modality Cross-Overs**

Anil Thozhur, Columbia University  
Bernd Schmitt, Columbia University

**ABSTRACT**

The use of music in everyday consumption situations is ubiquitous. However, apart from being classified as “muzak” and being studied in the context of its effect on speed of shopping (Milliman 1982) or improving a listener’s mood or morale (Bruner 1990; Gorn 1982), the cognitive complexity involved in semiconsciously processing music along with a wide variety of other everyday cognitive tasks, and the resultant coupling of different sensory experiences and its implications have not been studied extensively. Specifically, we study the notion that music can influence the perception of structure in other concurrently experienced nonmusical stimuli. The idea that multiple sets of cognitive processes can occur in tandem, informing and interacting with one another is not new (Marks 1987). Diserens and Fine (1939) noted that music somehow lowers the threshold for multiple cognitive modes to be processed by the brain. However, the complex system of neural pathways that link these multiple processes, and more importantly, the rules that govern these processes have not been studied as extensively.

In four completed studies, we show that the structural aspects of a musical cue (tonal variation, intervals between successive notes etc.) can affect pattern recognition and visual-spatial evaluations in an unrelated verbal task. In all our experiments, we ensure that the musical cue is subliminal. In the first experiment, participants were required to arrange a sequence of names in an order that made the most sense to them. Results show that participants mimic the structure of the musical cue when presented with it i.e. a subtle ascending/descending pattern of notes results in participants arranging the words in ascending/descending order of word size, regardless

of the order in which they originally arranged these words (prior to any musical stimuli being used).

The second experiment determined that this was not due to cognitive load. In fact, increasing cognitive load results in the absence of any rules being used to order the words. However, when subjects are exposed to the musical prime and subjected to cognitive load simultaneously, they once again revert to arranging the words in increasing order of size. In the third study, we are able to determine that this pattern of results does not hold when we use musical stimuli where a clear structure of notes is not discernable (i.e. “unstructured”). We then extend these findings to demonstrate that conceptual similarity (a participant’s assessment that two concepts are highly similar) can be influenced by two highly “conceptually” similar pieces of music i.e. a musical stimulus consisting of a theme followed by a variation to the theme. In this experiment, we were able to show that similarity assessments of a pair of concepts (for instance, “France” vs. “Germany”) significantly increased following the participant’s exposure to the musical prime. We tested this effect using luxury brands as well, and the effect is replicated. In almost all cases, the musical stimuli was recorded by one of the researchers, therefore removing any performance quality bias. All the stimuli used were also rigorously pretested among experts in the musical arena. The paper then outlines extant literature in the cognitive-perceptual domain on cross-modal interactions, including a survey of research using music.

For further information, contact: Anil Thozhur; Dept of Marketing, Columbia Business School; 311 Uris, 3022 Broadway; New York, NY 10027; Email : at2155@columbia.edu

**Which Message To Deliver: Vantage Claim vs. Qualifying Claim?  
The Interaction Effect Between Product Claim Type And Brand Strength On Product Evaluations**

Wenbo Wang, Peking University

**ABSTRACT**

Two-factor theory (e.g., Maddox, 1981; Swan & Combs, 1976) suggests that some product attributes belongs to vantage factors that move a product ahead of the pack, whereas some product attributes tend to be qualifying factors, a necessary, but not sufficient, condition of satisfaction. To promote a T-shirt, for example, marketers could either focus on vantage attributes such as “fashionable styling from famous designers” or on qualifying attributes such as “strong retention of shape due to new materials”. Thus, a natural question arises: which type of the product claims (vantage vs. qualifying) is more attractive to consumers? This research attempts to explore the interactive relationship of the claim type and brand strength as well as its impact on message persuasiveness.

The literature suggests that brands are perceived as credible and consistent symbols of product quality (e.g., Aaker, 1991; Erdem & Swait, 1998; Kirmani & Rao, 2000). It follows that consumers are likely to infer that strong brands, though in absence of qualifying claims, will possess qualifying attributes. Therefore, in a joint evaluation between two strong brands, the brand with qualifying claims is less likely to be perceived as attractive as it should be. However, perceived good performance of a vantage attribute represents an opportunity to move ahead of the pack (Cadotte & Turgeon, 1988). It follows that strong brands with vantage claims tend to be perceived more attractive than competitors without such claims. For a weak brand, product messages such as advertising serve as a source of information rather than a signal of quality (Caves and Greene 1996). Furthermore, relative to strong brands, weak brands suffer low brand credibility. As a result, consumers are like to doubt the brand’s ability to deliver what it promises (Erdem & Swait, 1998, 2004). The contrast effect (weak brand vs. vantage claim) could lead to the perception of low credibility and hence dismissal of the claim. In sum, I expect an interaction effect between claim type (vantage vs. qualifying) and brand strength on product evaluations (the definition of brand strength in the research is consistent with Francois and MacLachlan’s (1995) and Yooa and Donthu’s (2001) research). Specifically, for strong brands, consumers are more likely to generate favorable evaluations towards products with vantage claims than with qualifying claims ( $H_1$ ). For weak brands, consumers are more likely to generate

favorable evaluations towards products with qualifying claims than with vantage claims ( $H_2$ ).

Two experiments were carried out to test the hypotheses. Experiment 1 used sunscreen lotion and fictitious brands. The results were consistent to the hypotheses. Two pretests were conducted to 1) collect product claims for Experiment 1 and 2) demonstrate that subjects could spontaneously identify the two claim types when presented with the claims. Experiment 1 employed a 3 (brand strength: strong vs. weak vs. control)  $\times$  2 (claim type: vantage vs. qualifying) mix design, in which claim type was a within-subjects factor. Brand strength was manipulated by priming subjects with brand ranking. After the priming, subjects were presented with descriptions of two sun lotions. Sun lotion A had two qualifying claims and Sun Lotion B two vantage claims; all the claims collected from the pretests. Then subjects rated their attitude towards the two products and indicate which one they prefer. Claim desirability, claim credibility, and manipulation check items for brand strength were then measured. The results support the hypotheses. Moreover, mediation analyses showed that claim desirability mediated the interaction effect between claim type and brand strength on product attitude.

To increase generalizability, I employed real brands and a different product category---mobile phone in Experiment 2. Prior to Experiment 2, two pretests were conducted, with the same aims and procedure as the two pretests for Experiment 1. Experiment 2 used a 2 (brand strength: strong vs. weak)  $\times$  2 (claim type: vantage vs. qualifying) between-subjects design. 120 MBA students were randomly assigned to each group. The procedure is the same as that of Experiment 1 and product attitude was measured. The results of a 2 (brand strength)  $\times$  2 (claim type) between-subjects ANOVA yielded the expected claim type  $\times$  brand strength interaction. The results of follow-up planned contrasts replicated those of Experiment 1, thus providing support for the hypotheses.

**REFERENCES**

- Aaker, David A. (1991). *Managing Brand Equity*. New York: The Free Press.
- Cadotte, Ernest R. & Turgeon, Normand. (1988). Dissatisfiers and satisfiers: suggestions for consumer complaints and compliments. *Journal*

- of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 1, 74-79.
- Caves, Richard E. & Greene, David P. (1996). Brands quality levels, prices, and advertising outlays: empirical evidence on signals and information costs. *International Journal of Industrial Organization*, 14, 29-52.
- Erdem, Tulin & Swait, Joffre. (2004). Brand credibility, brand consideration, and choice. *Journal of Consumer Research*, 31, 191-199.
- Erdem, Tulin & Swait, Joffre. (1998). Brand equity as a signaling phenomenon. *Journal of Consumer Psychology*, 7, 131-157.
- Francois, Pierre & MacLachlan, Douglas L. (1995). Ecological validation of alternative customer-based brand strength measures. *International Journal of Research in Marketing*, 12, 321-332.
- Kirmani, Amna & Rao, Akshay R. (2000). No pain, no gain: a critical review of the literature on signaling unobservable product quality. *Journal of Marketing*, 64, 66-79.
- Maddox, R. N. (1981). Two-factor theory and consumer satisfaction: replication and extension. *Journal of Consumer Research*, 8, 97-102.
- Swan, John E. & Combs, Linda J. (1976). Product performance and customer satisfaction: a new concept. *Journal of Marketing*, 40, 25-31.
- Yooa, Boonghee & Donthu, Naveen. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research*, 52, 1-14.
- For further information contact: Wenbo Wang, Guanghua School of Management, Peking University, Beijing, 100871, China. Email: wangwenbo@gsm.pku.edu.cn.

**Advice Taken But Not Followed: Vividness, Identifiability And Word-Of-Mouth Behavior**

Rajesh Bhargave, The Wharton School, University of Pennsylvania  
Deborah Small, The Wharton School, University of Pennsylvania

**ABSTRACT**

Popular websites such as epinions.com and amazon.com provide consumer-generated reviews of products and services. Many of these reviews are written by consumers who had a negative experience with a service provider and who advise others to avoid this service provider. When do consumers trust and follow such advice? We examine two factors which vary naturally across online product reviews and review sites: vividness and identifiability.

Previous research shows that people are more affected by vivid information than pallid information (Nisbett & Ross, 1980; but see Taylor & Thompson, 1982). For example, vivid descriptions of an illness impact judgments and decisions more than pallid, base-rate information about the probability of contracting an illness. Research also shows that an identifiable victim has a greater impact on sympathy and altruistic behavior than does an unidentifiable victim or statistical victims (Small & Loewenstein, 2003). This result has been demonstrated even with non-vivid manipulations of identifiability, which suggests that identifiability is a separate construct from vividness. However, this 'identifiable victim effect' has not been generalized to word-of-mouth behavior, in which the message is not to help the victim but to heed the victim's advice and to punish the source of the victim's negative experience. By testing identifiability and vividness simultaneously in this context, we can better understand their similarities and their differences.

We conducted an experiment in an online restaurant review context consisting of a 2 (vividness) x 2 (identifiability) between subjects design. Participants read about a hypothetical restaurant with one focal review. The review in the non-vivid conditions only included a low rating by a displeased consumer, whereas the review in the vivid conditions also included a negative testimonial by the displeased consumer. The testimonial used in the vivid conditions had no self-referencing information. Participants in the non-identifiable reviewer condition saw no information about the reviewer, whereas participants in the identifiable reviewer conditions saw a profile of the reviewer on the website. This profile was generic; it did not include

information that was diagnostic for determining the reviewer's tastes, and it did not provide any details that would help illustrate the reviewer's negative experience at the restaurant. Thus, there was no confounding relationship between identifiability of the reviewer and vividness of the review. After reading the restaurant review, participants answered questions about their attitudes, feelings, and behavioral intentions towards the restaurant.

Results revealed that vivid testimonials increased participants' trust for the reviewer's advice. However, vivid information alone failed to sway behavioral intentions. Behavioral intentions were measured by asking participants if they intended to avoid the restaurant in order to punish the restaurant for harm it has caused the reviewer. Vivid testimonials impacted behavioral intentions more than did non-vivid, ratings-based reviews only when the information came from an identifiable reviewer. When the reviewer was identifiable, participants blamed the restaurant more for the reviewer's negative experience, and this greater blame attribution resulted in a greater intention to punish the restaurant. In fact, when the review was presented as a vivid testimonial, blame fully mediated the relationship between identifiability and behavioral intentions. When only ratings were provided in the review, identifiability had no impact on behavioral intentions because participants did not trust the reviewer's advice in the first place.

The findings from this experiment further differentiate vividness from identifiability, and demonstrate for the first time that an identifiable source can be more effective for word-of-mouth persuasion, particularly if the goal is to inspire others to punish a service provider. Vivid, testimonial information is likely to influence consumers' propensity to trust such advice, but the sympathy born out by an identifiable source is more likely to ensure that consumers actually follow the advice.

For further information contact: Rajesh Bhargave;  
The Wharton School; University of Pennsylvania;  
700 Jon M. Huntsman Hall; 3730 Walnut Street;  
Philadelphia, PA 19104

## Neural Correlates of Ad Liking

Peter Kenning, University of Münster, Germany  
Hilke Plassmann, California Institute of Technology  
Anna Pieper, University of Münster, Germany  
Wolfram Schwandt, University of Münster, Germany  
Harald Kugel, University of Münster, Germany  
Michael Deppe, University of Münster, Germany

### ABSTRACT

#### Background

Various advertising research studies could show that ad liking contributes to advertising effectiveness. Thus, most advertising campaigns are using a variety of emotional stimuli such as music, humor, sex, and fear. They are all designed to elicit an emotional response in the viewer in order to capture their attention and help communicating the advertising message. However, little is known about differences in neural processing of liked and non-liked ads. Here, we hypothesized that highly liked ads activate the basic human reward system.

#### Method

In a pre-study we asked 100 subjects to judge their liking of 45 print advertisements taken from current news magazines. We selected 30 out of those 45 ads and grouped them into 3 classes of 10 ads each (high liking, neutral, low liking). In the following main study 22 healthy subjects participated in an fMRI experiment, each making 120 binary decisions of their liking of the 30 pre-selected and classified ads. The subjects had to rate the ads as liked or non-liked during functional magnetic resonance imaging (fMRI) by pressing the corresponding buttons on a response box.

#### Major Findings

On the behavioural level, subjects judged their liking of the ads as assumed based on the results of the pre-study.

Standard functional imaging software (SPM2) was used to analyze the fMRI data. The group analysis revealed significantly increased activity ( $p < 0.01$ , corrected for multiple comparisons) in the nucleus accumbens, posterior cingulate, medial prefrontal cortex, and higher order visual cortices during decisions on highly liked ads in relation to less liked ads. The strongest differences were found in the fusiform face area (FFA) and the ventral striatum (nucleus accumbens).

The FFA can be regarded as an area involved in face perception. The activity increases in the higher

order visual cortices may reflect increased visual attention during viewing the attractive visual material. There might be a close interaction between the experienced attractiveness of an ad and facial expressions of persons displayed in the ad. In the attractive group we had 5 of 10 ads showing people with positive facial expressions. In the unattractive group there were only 2 of 10 ads showing faces. Their expressions could be characterized as neutral.

The ventral medial prefrontal cortex (VMPFC) is a region with a fundamental role in human decision-making, especially in the context of emotional integration. The nucleus accumbens (NCC) is a small brain area located in the basal forebrain and is part of the ventral striatum (VS). The VS has been found to be activated in human neuroimaging studies when reward is received as well as when reward is expected. Mildly pleasurable stimuli only elicited activity in the NCC, when their occurrence was unpredictable. This seems to be the case in our study, where the sequences of the ads were randomized and the subjects do not know what ad comes next. In a study on financial rewarding the activity in the VS correlates positively with the height of the reward. Therefore, we conclude that liked ads may act as rewarding stimuli, i.e. lead to activity increases in human mesolimbic reward system where basic rewards such as food and sex are processed.

Additionally, we could find increased activity in the anterior insula when respondents were exposed to less liked as compared to highly liked ads. The anterior insula is a brain region, which is believed to process convergent information to produce a negative emotionally relevant context for sensory experience, such as disgust and feelings of unease.

#### Conclusion

In conclusion, key findings of our study are that perceived ad liking addresses specific brain areas that are connected with the brain's reward system. Furthermore, the present study revealed an interaction between face perception and ad liking, which should be subject of further research.

## Bilingual Advertising and Language Domains

Ryall Carroll, Baruch College/CUNY Graduate Center

### ABSTRACT

In recent years there has been a greater focus on bilingual research in marketing journals. This research has focused on various bilingual linguistic phenomena such as the impact of code switching on ad persuasion (Luna and Peracchio 2005), to the influence of how different languages are processed on recall and attitude of advertising (Tavassoli and Lee 2003). In Koslow, Shamdasani, and Touchstone's (1994) research, U.S. Hispanics' response to the use of the Spanish language in advertising was investigated. Their research found that the positive effects of Spanish language, or minority subculture language, in advertising could be partially explained by the sociolinguistic theory of accommodation. The theory of accommodation predicts that "the greater the amount of effort in accommodation [using the language of the listener] that a bilingual speaker of one group was perceived to put into this message, the more favorably he would be perceived by listeners from another ethnic group, and also the more effort they in turn would put into accommodating back to" the speaker (Giles, Taylor, & Bourhis 1973 p.177). Koslow et al. (1994), using the theory of accommodation, found that the use of Spanish language not only has an impact on a Hispanic individuals message comprehension, but also communicates a message about the advertiser's sensitivity to the Hispanic culture. This sensitivity to the Hispanic culture can result in a significant and positive influence on the individual's attitude toward the advertisement (Koslow et al. 1994).

Koslow et al.'s (1994) research supports advertiser's attempt to target linguistic minorities by translating advertising messages into the linguistic minority's native language. A potential moderator of Koslow et al.'s (1994) findings is the presence of the language appropriateness indicated by the language domain framework. Currently there is no language domain research on the effectiveness of bilingual advertising. This paper examines the appropriateness of a language in different multilingual situations.

The framework of language domains is based on a corpus of sociolinguistic studies that observed bilinguals in various multilingual speech communities around the world (e.g., Hoffman 1971; Barker 1975; Scotton 1979; Nishimura 1992; Goebel 2005). Through observation of various multilingual speech communities, a theory was established that language use in multilingual settings is not random.

By observing the interactions of multilinguals in different speech communities, ethnographers were able to uncover underlying patterns that repeatedly emerged and dictated the proper use of a language at particular times and places surrounding particular topics.

The language appropriateness that corresponds to a particular topic area is a result of many different factors, such as bilinguals having learned how to deal with a topic in a particular language, a language's lack of specialized terms for a particular topic, or simply because the use of a certain language would be considered strange or inappropriate for discussion in that language (Grosjean 1982). It is important to note that the reason for a particular language to be more appropriate than another may simply be a result of certain languages having been traditionally used when discussing a certain topic. This would suggest that the bilingual has learned from an early age to deal with a certain topic in a certain language. This indicates that there is probably a greater accessibility of a particular language over another with which a bilingual can discuss a certain topic in. It may be the case that the bilingual knows more vocabulary in a particular language surrounding a topic area, or that the bilingual uses particular words more often in one language over another. These situations will result in a greater ease and comfort in discussing a topic in one language over another.

Since the appropriateness of a particular language is so ingrained into a multilingual that it is chosen unconsciously with no extra time or effort (Grosjean 1982), the choice process may be an automatic process of which the bilingual is unaware. The corpus of language domain research would indicate that, for print ads dealing with certain topic areas, there is a particular language that is more appropriate than others.

The empirical study shows the impact of the language domain framework on advertising. The hypothesis of this study is that when ad language is congruent with language domain factor of topic area, the ad evaluation would be higher than when ad language is incongruent with language domain factor of topic area. This study had a 2 (language: Spanish or English) x 2 (Topic area: Work or Family & Friend) between-subject design. Language and Topic area were between-subjects factors. Every subject was presented with the same number of



advertisements: three advertisements from the target topic areas and the remaining advertisements were practice and filler ads. The order of the filler and target advertisements in the questionnaire was varied. Ad evaluations were collected on a 7-point six item scale, where higher scores meant more favorable evaluations (Luna and Peracchio 2005). The ad evaluation index yielded a two-way interaction between Language and Topic area ( $F(1, 52) = 11.889, p < .01$ ). These results confirm the expectations, that when advertisements focused on the topic Friends and Family, the Spanish language ads were evaluated higher than the same ads in English (Friends & Family ad, Spanish,  $M = 4.647$  vs. Friends and Family ad, English,  $M = 3.769$   $F(1, 26) = 6.775, p < .05$ ). Also, confirming expectation when the topic area of Work used, the English language ads were evaluated higher than the same advertisement in Spanish (Work ad, English  $M = 5.207$  vs. Work ad, Spanish  $M = 4.659$   $F(1, 26) = 4.945, p < .05$ ).

This study contributes to the consumer behavior research by bringing to light the fact that each multilingual speech community has language domains that dictate the proper use of each language. This article also contributes to the field of sociolinguistics in showing that language domain norms are not just verbal, but also transfer to the written language as well. Most of the sociolinguistic research in this area relied on observational studies with little to no experimental research. This study adds further validity to the prior research in language domains as well as showing the impact that these language domains can have on liking of an advertisement.

#### REFERENCES

- Baker, G. (1975), Social functions of language in a Mexican-American community. In *El lenguaje de los Chicanos: regional and social characteristics used by Mexican Americans* eds. E. Hernandez-Chavez, A. Cohen, and A. Beltramo. Arlington, VA: Center for Applied Linguistics.
- Fishman, J.A. (1964). Language maintenance and language shift as a fields of inquiry, *Linguistics*, 9, 32-70.
- Fishman, J.A. (1965/2000). Who speaks what language to whom and when? *La Linguistique*, 2, 67-88. Reprinted in Wei, L. (Ed.) (2000). *The Bilingualism Reader*, Chapter 4. London: Routledge.
- Fishman, J.A. (1968). "Sociolinguistic perspective on the study of bilingualism" *Linguistics*, 39, 21-49.
- Fishman, J.A. (1971). *The Sociology of Language*. In Fishman Eds. (217-404) *Advances in the Sociology of Language*. Paris: The Hague.
- Goebel, Zane (2005), *An Ethnographic Study of Code Choice in Two Neighbourhoods of Indonesia*, *Australian Journal of Linguistics*. Volume 25, (1) 85 – 107.
- Grosjean, Francois (1982) *Life with Two Languages*. London: Harvard University Press.
- Hoffman, G. (1971), Puerto Ricans in New York: a language-related ethnographic summary, In *Bilingualism in the barrio*, ed. J. Fishman, R. Copper, and R. Ma. Bloomington: Indiana University Press.
- Koslow, Scott, Prem N. Shamdasni, and Ellen E. Touchstone (1994), Exploring Language Effects in Ethnic Advertising: A Sociolinguistic Perspective, *Journal of Consumer Research*, 20 (March), 575-585.
- Luna, David, and L.A. Peracchio (2005), Advertising to Bilingual Consumers: The Impact of Code-Switching on Persuasion, *Journal of Consumer Research*, Vol. 31 (March) p.760-765.
- Nishimura, Miwa (1993), Language choice and in-group identity among Canadian Niseis. *Journal of Asian Pacific Communication*, 3(1): 97-113
- Rubin, J. (1968), *National Bilingualism in Paraguay*. The Hague: Mouton.
- Tavassoli, N.T., and Lee, Y.H. (2003), The differential Interaction of Auditory and Visual Advertising Elements with Chinese and English, *Journal of Marketing Research*, XL (November), 468-480.
- Scotton, C. (1979), Codeswitching as a "safe choice" in choosing a lingua franca. In *Language and society*, ed. W McCormack and S. Wurm. The Hague: Mouton.
- For further information contact: Ryall Carroll; Department of Marketing; Zicklin School of Business; Baruch College/CUNY; B12-240, One Bernard Baruch Way; New York, NY 10010; Tele: 646.312.3305; William\_Carroll@baruch.cuny.edu

**Language Stereotypes And Spontaneous Social Comparison:  
Understanding How Accents Can Impact Self-Perceptions And Brand Evaluations**

Christine M. Bennett, University of Minnesota  
Barbara Loken, University of Minnesota

**ABSTRACT**

Many commercials today feature spokespeople with accents. A few recent examples include British accented actors appearing in commercials for Orbit gum, Luvs diapers, Victoria's Secret, Samsung HDTV, Dyson vacuum cleaners and Reach toothbrushes. The current research investigates a process that, under certain conditions, occurs upon hearing an accent and how this process influences consumers' perceptions about the spokesperson, the self and the advertised brand. Specifically, we investigate whether language and cultural stereotypes become more salient upon hearing an accent, conditions under which individuals (particularly those that are uncertain of themselves) engage in social comparison between the self and the activated stereotypes and the impact this process has on brand evaluations.

In an experiment, we find that compared to an American spokesperson, a British accented

spokesperson is perceived as more educated. In addition, after simply hearing an identical radio advertisement for a debt counseling and repair service that varied only with respect to the featured accent, participants rated themselves as less intelligent after exposure to the British accented commercial providing support that social comparison can occur between the self and activated language and cultural stereotypes. In addition, target participants (i.e. persons with debt) had a lower overall evaluation of the debt repair service when a British accent was used than when an American spokesperson was used. The reverse was found in response to the American spokesperson. Taken together, these studies suggest that hearing accents activate language stereotypes to which individuals sometimes compare themselves and which, under some circumstances, lead to less favorable evaluations of the brand.

## Improving Health Programs With Emotional Intelligence

Paula C. Peter, Virginia Tech  
David Brinberg, Virginia Tech

### ABSTRACT

Despite many social marketing campaigns to promote healthy nutrition and physical activity, recommendations are not followed by the majority of people (Healthy People 2010). Of particular concern are declines in physical activity in adolescents (Tammelin, et. al. 2003).

Research on behavioral determinants related to health behaviors suggests that the individual management of emotions may represent a key factor for the successful adoption and maintenance of health behaviors (e.g. Tsousis and Nikolaou 2005). From a consumer welfare perspective, research on coping strategies, emotion regulation and decision making suggests the need to look at the management of emotions (e.g. Luce, Bettman and Payne 2001, Pham et al. 2001, Eduardo 2005).

### An “Emotional Intelligence” Approach

To date, no research has examined emotional intelligence and its role in consumer decision making and health. Emotional intelligence (EI) is the ability to perceive, facilitate, understand and manage emotions (Mayer and Salovey 1999). Brackett, Mayer and Warner (2004) define emotional intelligence (EI) as the ability to perceive emotion and use them to facilitate thought. They demonstrated that people with lower Emotional Quotient (EQ, Bar-On 1997) seem to be more predisposed to unhealthy/risky behaviors; i.e. drug abuse. Tsousis and Nikolaou (2005) have provided empirical evidence related to the positive relationship between EI and health.

The aim of this study is to examine the role of emotional intelligence in adoption and maintenance of a health behavior. In specific the study attempts to identify the emotional abilities that distinguish people who have a healthy weight ( $18.5 < \text{BMI} < 25$ ) from people who are overweight or obese ( $\text{BMI} > 25$ ). The results will allow the tailoring of health programs in order to potentially increase their effectiveness.

### Method

A total of 120 subjects (60 normal weight and 60 obese/overweight, half males and half females, age 19-26) completed the classic measure of EI (MSCEIT) and behavioral determinants identified by Fishbein et al (2001).

In order to develop the content for the population-specific variables (Fishbein et al 2001) an open-ended elicitation with a sample from the population of interest (10 undergraduates) was conducted. Responses that were given by at least 20% of the sample were used in the questionnaire. We also conducted a pretest to identify a set of knowledge questions (source: USDA 2006) that provide adequate differentiation among high and low knowledge respondents.

### Results and Analysis

Simple t-test suggests significant differences in terms of overall score of EI between overweight/obese subjects and normal weight subjects. In specific overweight/obese subjects reported a lower EI score (93.86) than normal weight subjects (99.74) ( $t = -1.88, p < .062$ ).

At the branch level Emotional Reasoning (understanding and regulation of emotions) is lower for obese/overweight students than for normal weight students ( $t = -2.44, p < .03$ ).

Considering the adoption and maintenance of health behavior as dependent variable (BMI) we looked at the role of actual knowledge and emotional intelligence. Results from the GLM procedure suggests the independent role of EI from knowledge in predicting the adoption and maintenance of a health behavior ( $F = 5.29, p < .025$ ).

Emotional intelligence calls for a correct perception, facilitation, understanding and regulation of emotions compared to a perceived one. Results from the present study suggest that people who have a healthy weight ( $18.5 < \text{BMI} < 25$ ) are better able to understand and regulate their emotions than people who are obese or overweight ( $\text{BMI} > 25$ ). Therefore, from an intervention perspective, it seems that the introduction of educational materials related to the correct understanding and regulation of emotions might represent a way to increase the effectiveness of health intervention programs.

### Conclusion

In many consumption cases, people are consumers of bad behavior which they rationally know are bad but they can't overcome because they are not able to recognize and manage what they are feeling. To our knowledge, no research has

established a direct link between successful adoption of a health behavior and emotional intelligence. Especially, no research has tested for the role of EI on the adoption and maintenance of a healthy weight. Emotional intelligence and its application to consumer behavior might open the doors to a new

approach toward increasing the effectiveness associated to health programs.

For further information, contact: Paula C. Peter; Department of Marketing; Virginia Tech; Blacksburg, VA 24060; Telephone: 540-231-1902; Facsimile: 540-231-3076; Email: [papeter@vt.edu](mailto:papeter@vt.edu)

**Finding & Utilizing Opinion Leaders: Social Networks & The Power Of Relationships**

Rian van der Merwe, eBay, Inc, USA  
Leyland F. Pitt, Simon Frazer University, Canada  
Pierre Berthon, Bentley College, Waltham, MA 02452, USA  
Costas Katsikias, Leeds University, UK  
George Balabanis, City University, UK  
Nic Terblanche, University of Stellenbosch, South Africa

**ABSTRACT**

Research suggests that consumer choice is sub-optimal: simply we satisfice. Limited data, time and expertise render our rationality 'bounded'. The opinion leader offers a solution to this problem: when faced with a complex choice, we often seek the opinion of an expert. The Web has fueled an unprecedented expansion of this strategy by enabling 'virtual' opinion leaders (e.g. Epinions.com and Amazon.com). However, despite its rise in popularity, opinion leadership has received limited attention in the marketing literature. It is this hiatus that we address and in doing so seek to make two

potentially important contributions to the wider research on opinion leadership. First, we link opinion leadership to social network theory and show that that individuals who are central to social networks serve as opinion leaders. Second, we challenge the assumption that opinion leadership is monomorphic (topic specific) by showing that domain-specific opinion leadership is strongly related to general opinion leadership.

For further information, contact: Pierre Berthon,  
Bentley College, Waltham, MA 02452, USA,  
Pberthon@Bentley.edu

## When Comparison Becomes Contrast: Choice In An Oppositional Framework

Anjala S. Krishen, Virginia Tech  
Kent Nakamoto, Virginia Tech

### ABSTRACT

This paper proposes that there are multiple factors, such as the education process and the consumption environment, which work simultaneously to create an oppositional framework. People are constantly exposed to rival products, which are positioned to be opposites even when they are often extremely similar in chemical content and physical appearance. Thus, the implications of the recency-frequency model of activation (Higgins et al. 1985) would be that these proximal factors could, in some sense, prime dichotomized thinking. Dichotomized or oppositional thinking, as it is defined in this paper, pertains to the flattening of dimensions present in a choice set such that the items can be graphically depicted at two ends of one dimension.

In the present research, two key realms of the oppositional framework in relation to choice sets are explored, the cognitive mechanism and the motivational drivers. Clearly, whether it is called information overload, overchoice, or hyperchoice, the negative consequences of this phenomenon to consumers have been researched extensively in consumer behavior literature. This paper shows that by presenting choices in an oppositional framework, the negative reactions experienced by consumers due to the overchoice effect can be reduced.

Mind-sets are cognitive frames which cause people to organize relationships between information such that they are consistent with the priming they have received. Higgins, Bargh, and Lombardi (1985) developed the recency-frequency model of activation, further specifying the conditions under which priming can impact construct accessibility. Consistent with these findings, Galinsky and Moskowitz (2000) investigated how counterfactuals can be used to activate a mind-set, in their case, the simulation heuristic. Following this set of literature, study 1 of the present research primes subjects using a memory task in order to activate a *dichotomy mind-set*.

The first study will cognitively prime dichotomous thinking and discover how participants react when given the opportunity to choose several items. The purpose of this study is to establish the concept of a dichotomized mindset and show that when subjects are not under cognitive load, they will not experience the overchoice effect in terms of

choice process satisfaction. However, subjects will nonetheless find the process of choosing several items to be less frustrating when they are in the dichotomized mindset, consistent with the findings of Iyengar and Lepper (2000). The second study will introduce dichotomization into the design of a choice set, using multiple correspondence analysis. Following this, the study will delve into a choice experiment wherein subjects will be asked to make a choice and then report their decision difficulty along with other outcome variables. Finally, the basics of study 3 are outlined to determine the motivational drivers for the dichotomy mechanism in combination with the assortment and variety context.

Study 1 first hypothesized that by priming a dichotomy mindset, the negative impact of choice set size on choice process frustration could be lessened. The study employed a 2x2 full factorial design with 133 respondents. Dichotomy-prime (same vs. opposites) and size (small or six choices vs. large or twelve choices) were manipulated as between-subject factors. Although there were no significant main effects or interaction effects, the dichotomy-prime factor was marginally significant ( $p=.08$ ). Subsequent univariate testing of the dichotomy-prime factor for various sized choice sets showed that for small choice sets, choice process frustration was significantly lower when in the dichotomous (or opposite) mindset ( $M=3.70$ ) versus the nondichotomous (or same) mindset ( $M=4.81$ ),  $F(1,128)=3.82, p=.05$ .

The second and third hypotheses for study 1 required analysis of the choice process satisfaction scale. A 2x2 (Dichotomy-prime x Size) between-subjects factorial ANOVA was performed on the remaining five items (items 2-6) of the choice process satisfaction scale and was shown to be reliable ( $\alpha = .87$ ). There was a significant interaction between dichotomy-prime and size,  $F(1,131)=6.62, p<.02$ . A simple main effects analysis of the size factor showed that in the same-prime (nondichotomous) condition, small choice sets created significantly lower choice set satisfaction ( $M=5.21$ ) than large choice sets ( $M=6.68$ ),  $F(1,65)=14.19, p=0$ , whereas in the opposite-prime condition (dichotomous), small choice sets created insignificantly higher choice set satisfaction ( $M=5.99$ ) than large ones ( $M=5.94$ ),  $F(1,65)=0.01, p>.05$ .

Study 2 systematically manipulated the choice set stimuli using multiple correspondence analysis such that the choices varied along multiple dimensions but could be mapped unidimensionally at opposite ends of one relevant dimension, which this paper would call a dichotomous choice set. Dichotomous choice sets were defined as being characterized both in terms of content (actual variety of the assortment) and structure (organization and entropy of the assortment). A 2x2 full factorial design was used such that dichotomy-set (dichotomy vs. nondichotomy) and choice set size (large vs. small) were manipulated as between-subject factors. Decision difficulty, choice set complexity and number of reasons were all shown to have significant interactions in support of the hypotheses that large dichotomized sets are less difficult, less complex, and allow consumers to provide more reasons.

Study 3 (*Fall 2006*) will further specify the motivations which drive the dichotomy-based cognitive mechanism. Specifically, it will extend the previous two studies by making dichotomized

thinking in the choice set salient to the subject and identifying how the decisions made and the subjective outcomes experienced are impacted.

The first contribution of this research is the introduction of a dichotomous framework to explain how choice can be impacted by dichotomy. A second contribution of the research is to show in study 1 that the negative implications of the overchoice effect can be lessened when subjects are primed to think in terms of same or oppositional mindsets, followed by a consistent result when the choice set itself is manipulated to appear dichotomous in study 2. In combination, this research introduces and defines how dichotomy in a choice set impacts consumers and furthers the understanding of why opposition in a choice set, even if sometimes not an obvious characteristic, may be a preferred one.

For further information, contact Anjala Krishen at [Anjala@vt.edu](mailto:Anjala@vt.edu).

**It's All In The Brand Or Is It? Brand Centricity And Its Role In Brand Extension Evaluations**

Sanjay Puligadda, The Pennsylvania State University  
William T. Ross Jr., The Pennsylvania State University  
Rajdeep Grewal, The Pennsylvania State University

**ABSTRACT**

Although extensive literature has examined brands and the importance of branding (Kassarjian 1971, Jacoby and Kyner 1973, Sirgy 1982, Montgomery and Wernerfelt 1992, Keller 1993, 1998, 2003, Aaker 1997, Fournier 1998, Keller 1998, Chaudhuri and Holbrook 2001, Muniz and O'Guinn 2001 among others), the possibility that not all consumers assign equal importance to brand information has received limited attention.

I define brand centricity as a predisposition of the consumer to center or focus on brands. It refers to a generalized propensity, not an inclination towards any particular brand (s). Brands hold an important place in the brand centric consumer's schema and these brand based schemata lead him/her to organize, interpret and utilize information at a brand level. In contrast, the non brand based schemata of the consumer low on brand centricity lead him/her to interpret and utilize information at a product or feature level. While brand centric consumers are likely to approach consumption focusing on brand information, others are more likely to have a product centric view, focusing on products' item-specific attribute information (Aggarwal and Law 2005). A consequence of the brand based schemata of the brand centric consumer is increased motivation and ability (Merton 1957) to acquire and store information pertaining to brands.

Brand centricity is conceptualized as a trait of the consumer unlike extant constructs pertaining to the consumer-brand relationship such as brand loyalty, (Jacoby and Kyner 1973), brand awareness and brand recognitions (Keller 1993), brand affect and brand trust (Chaudhuri and Holbrook 2001) and brand commitment (Lastovicka and Gardner 1978) all of which pertain explicitly to the dyadic relationship between a consumer and a specific brand.

Using the 3M hierarchical model of personality traits (Mowen 2000), I argue that brand centricity is a situation trait of a consumer. The 3M describes four levels of traits (elemental, compound, situation, and surface traits) in increasing (decreasing) order of specificity (abstractness) with traits of each level interacting with a) each other, b) traits from lower levels, c) cultural and sub cultural processes and d) learning to create lower level traits (Mowen 2000).

Situation traits are dispositions to behave within a general situation and context, due to which Mowen (2000) suggests that they are more likely to exist in the consumer behavior domain.

Based on exploratory qualitative research and construct conceptualization, scale items to measure brand centricity were generated and administered (n=312). Scale purification using exploratory and confirmatory factor analysis led to a 10 item scale with alpha and composite reliability of .9. In the 2<sup>nd</sup> round of data collection, respondents' simple self-rating scales for brand centricity showed a significant correlation of .8 with the 10 item scale suggesting convergent validity (Bagozzi 1993) and the scale showed good psychometric properties consistent with the first round. This round also established the discriminant validity of brand centricity from extant constructs such as brand sensitivity (Kapferer and Laurent 1992) and brand consciousness (Sproles and Kendall 1986) and embedded brand centricity in a nomological network of related traits (Mowen 2000) and extant constructs.

In addition to scale development, in this research I examine the influence of brand centricity on two aspects of consumers' information processing, the first of which is the weighting of brand versus product information in product evaluation. As the predictive role of brand and attribute information is generally compensatory (van Osselaar and Alba 2003), brand centric consumers are likely to assign higher weight to brand than attribute information as predictors of benefits while evaluating a product. A study conducted to test this showed that indeed high brand centric individuals did assign higher weight to brand as opposed to attribute information.

The second aspect I examine is that of brand extension evaluations. Brand extension literature has identified the degree of perceived fit between the parent brand and the extension to be a function of product feature similarity and brand concept consistency (Park, Milberg and Lawson 1991). While the former refers to the similarity between extension products and the parent brand's existing products in concrete features (attributes) or abstract features (usage situation) (Park, Milberg and Lawson 1991), brand concept consistency refers to the extension product's ability to accommodate the parent brand's



concept. As brand centric consumers have a heightened sensitivity to the brand concept, they are likely to categorize products to a greater extent on the basis of the brand concept than product features. Consequently, brand centric consumers are more likely to assign a higher weight to brand concept consistency while evaluation brand extensions. Further, if between the original brand and the extension, the product feature similarity is low (high) and brand concept consistency is high (low), brand centric individuals will rate the extension more (less) favorably than consumers low on brand centrality while if both brand concept consistency and product feature similarity are low (high), extension evaluations will be unfavorable (favorable) regardless of the consumer's brand centrality. Tests of these hypotheses are underway, and the results will be reported in the final paper and the competitive paper presentation.

This research contributes to theory by extending personality theory to brand research in order to develop the construct of and scale for brand centrality. A trait measure is developed that has a potentially important influence on a wide array of existing theoretical models pertaining to the

consumer-brand relationship. Finally, this research augments existing literature by specifically examining the effects of brand centrality on brand extension evaluations.

A significant managerially relevant contribution of this research is in introducing a consumer typology on the basis of how important brands are to consumers and an investigation of how brand centrality affects their information processing. While considerable investments are made in brand building activities (Keller 2003), marketers are currently ill equipped to ascertain whether these efforts have the same intended effect on all consumers. By recognizing brand centric and non-brand centric consumers, practitioners can maximize communication effectiveness by touting brand virtues to the former and item specific product features to the latter.

For further information contact: Sanjay Puligadda; 460A Business Building; The Pennsylvania State University; University Park, PA 16802; 814-863-2392; [pus117@psu.edu](mailto:pus117@psu.edu)

## Advergaming: The Impact Of Brand Prominence And Repetition On Brand Responses

Verolien Cauberghe, University of Antwerp, Belgium  
Patrick De Pelsmacker, University of Antwerp, Belgium  
Ati Coffernlis, Free University of Brussels

### ABSTRACT

Advergaming are computer games specifically created to function as advertisements to promote brands, where the entertainment content mimics traditional game forms. The purpose of this study is to study brand effects in advergaming with varying strength of brand exposure, disentangling the effect of brand prominence and game repetition, and for products with different involvement levels. The prominence of placing a brand, in the foreground as actual part of the game, or in the background similar to a billboard may have an important influence on brand recall and brand attitudes. Advergaming require only a very short playing time and can therefore be played repeatedly. The effect of repeated exposure to the brand as a result of repeatedly playing the game on brand recall and attitudes is also studied. We also explore the impact of exposure strength on low (LI) and high (HI) involvement products. The study's contribution is to investigate whether previous results with respect to product placement and stimulus repetition also hold in a interactive gaming environment.

### HYPOTHESIS DEVELOPMENT

#### Brand prominence

In prominent placements the product is made highly visible by virtue of size/or position on the screen or its centrality to the action in the scene. Subtle placements are not shown prominently. Brand placements in games differ from traditional product placements because of their interactive context. This interactivity creates cognitively involving experiences. Prominent in-game brand placements benefit from this cognitive involvement. The brand receives high attention and will be processed more intensively. We therefore expect that brand recall will be higher in case of prominent placement than in subtle placement. Research in the product placement field attributes the impact of brand placement on brand attitudes to affective conditioning. This association between brand and context will more likely be activated for subtle brand placements than for prominent placements. Consistent with this, the Persuasion Knowledge Model postulates that consumers use their knowledge about the persuasive goals and tactics of marketers to cope with persuasive attempts. In situations of intensive processing, as is the case for highly prominent placements, consumers are more likely to rely on negative thoughts about the

marketing goals. Therefore we expect subtle brand placement to lead to more positive attitudes than prominent placement.

#### Game repetition

The two-factor model of advertising repetition effects states that in the wear-in or learning phase, the consumer gets familiar with the ad message. In the 'wear-out' or tedium phase, advertising effectiveness declines with continuing repetition due to boredom and irritation. The U-inverted impact of ad repetition can be explained by the development of support arguments rising at low levels of repetition, and counterarguments at high repetition levels, diminishing the positive impact on the brand. In line with this, a highly engaging gaming activity could lead to faster wear-in and wear-out, even at moderate levels of game repetition. We therefore expect higher levels of repetition to lead to better recall and more negative brand attitudes.

#### Product involvement as moderator

Product category involvement has an impact on the processing mode of individuals: low involved individuals use the peripheral processing route, whereas high involved individuals use the central processing route. The Limited Capacity Theory and the Persuasion Knowledge Model were used as a framework to formulate the expectations that prominence has a positive effect on recall for low involvement product, but not for high involvement products, and that no difference in brand attitudes between LI and HI can be expected. The degree of processing can also have an influence on the wear-in and the wear-out phase of ad repetition, with intensive processing, as for HI products, leading to faster wear-out. Therefore we expect that a high level of game repetition will lead to more negative brand attitudes than a moderate level for HI products. For LI products we expect no difference in attitudes.

### DESIGN

The hypotheses were tested in a 2X2X2 between-subjects factorial design in which prominence, game repetition (playing the game 2 times vs 4 times) and product involvement were manipulated. The games were integrated into a web survey that was sent to a convenience sample. The net sample consisted of 480 respondents (42% males vs 58% females, age range between 15 and 40 years old, 53% of the respondents

hold a university degree). Recall of product category and brand and recognition of the product, along with attitude toward the brand were the independent variables.

### RESULTS

The two aspects of brand exposure strength have an influence on different factors: brand prominence has a positive influence on recall, whereas game repetition has a negative effect on brand attitudes. The cognitive involvement created by the highly interactive gaming experience has a different impact with respect to brand prominence than to game repetition. As a result of a higher prominence, the cognitively demanding context seems to extend the tedium phase. In contrast, for game repetition, the cognitive involvement accelerates the wear-out phase. Product involvement is a significant moderating factor. Placing the brand in the foreground of the game resulted in better recall for a

LI product than for a HI products, but had no effect on Ab for LI and HI products. Product involvement does also have a moderating impact on the effect of game repetition on brand attitude. For HI products, a moderate level of repeat playing has a more negative effect on brand attitudes than a low level of repetition. This is not the case for LI products.

The managerial implications for advertisers is that placing a brand prominently in an advergame that is not meant to be played multiple times, generates the best advertising results, in terms of brand recall and brand attitudes. When replicable playing the game is a required, the advertiser should try to build in variations in the advergames, for instance by displaying different 'play worlds', to avoid that the player reaches the wear-out phase too fast and will develop negative attitudes.

For further information contact:  
verolien.cauberghe@ua.ac.be

## The Psychology Of Category Design: Implications For Consumer Information Processing And Choice

Cait Poynor, University of South Carolina  
Kristin Diehl, University of Southern California

### ABSTRACT

Marketers face a dilemma when it comes to managing large, highly varied assortments. On one hand, consumers prefer larger assortments (McAlister and Pessemier 1982), and thus, assortment size is viewed as a source of strategic differentiation (Oppewal and Koelemeijer 2005). On the other hand, large assortments can be overwhelming and may encourage consumers to delay or forego purchase (e.g. Huffman and Kahn 1998, Iyengar and Lepper 2000). Still, retailers hesitate to manage potentially overwhelming variety by reducing SKUs, fearing alienation of part of their consumer base and a drop in sales across their overall assortment (Borle et al. 2005; Broniarczyk et al. 1998).

One way to address this dilemma is to organize an assortment in terms of different category structures. When designing displays or store layout, marketers most commonly use taxonomic structures, i.e. they group products by types or based on shared attributes. Recently, however, industry sources have prescribed shifting from traditional taxonomic to more customer-centric structures as an important opportunity for innovation in an increasingly cluttered marketplace (IBM 2005). Some retailers have followed this suggestion. For example, Target's has changed its largely taxonomic structure to one that is based on consumers' life activities, such as "Entertainment Central" or "Baby World (Wollam 2004). Overall, marketers seem to believe that changing away from taxonomic categories is beneficial for their business and helpful to consumers (Anderson 2001, Wollam 2003). However, little is known how imposing these different structures affects consumers and retailers.

While extensive research has explored the ways in which consumers themselves spontaneously categorize stimuli, only a handful of studies have considered how category design (i.e., the *marketer's* choice of externally provided category structures) may impact consumer behavior (Felcher, Malaviya and McGill 2001; Lee and Lee 2004; Desai and Ratneshwar 2003; Morales et al. 2005). Our research contributes to this growing interest in category design by demonstrating that different organizations can lead to fundamental changes in the decision process. Reflecting recent trends, we focus on taxonomic sets, where items are grouped in terms of their type or perceptual similarities, as compared to thematic

structures (Einstein and Hunt 1980), which organize the same items in terms of their benefits or contexts of use. We demonstrate that organizing a single set of items into a thematic rather than taxonomic structure increases perceptions of similarities among items in the set and generates greater mental integration of items. Ultimately, heightened perceptions of similarity triggered by thematic groupings result in consumers choosing less expensive items from such groupings. Two studies will be discussed at the Society for Consumer Psychology Conference.

### STUDY 1 SUMMARY

In Study 1, we constructed a set of 32 teas for participants to choose from. Participants saw the same set of teas grouped either by type (black, green, mint, or rooibos - taxonomic grouping), by benefit (weight loss, energy boost, stress relief, or heart healthy - thematic grouping,) or randomly by pages (page 1, page 2, page 3, page 4 - control). They browsed the selection, identified a consideration set, and made a choice at their own pace. Following their decision, participants rated the degree of overall similarity among items in the set. The extent of mental integration was captured using a sorting task, where participants sorted their consideration set items into two groups of their own choice. Longer sorting times were taken to indicate a more cohesive, integrated mental schema.

In this study, we found that, consistent with a relational processing strategy, participants who browsed and chose from either of the organized sets reported a higher sense of similarity among items in the set. Importantly, however, participants browsing and choosing from thematic sets developed significantly stronger perceptions of similarity among items in the set than did participants who browsed and chose from the taxonomic sets. Participants took nearly twice as long to sort thematically-grouped items than they did to sort those seen in taxonomic sets, further indicating that thematic sets led to greater mental integration of alternatives than did taxonomic groupings.

### STUDY 2 SUMMARY

In Study 2, we replicated the basic findings from Study 1 with regard to overall similarity perceptions, and extended these findings by examining the effect of different categories on prices paid by consumers. Study 2 was similar to study 1 with the exception that

teas came at a price and participants were given a \$5.00 “budget” with which to pay for one of the teas. We predicted that due to inflated similarity perceptions created in thematic sets, participants would become more price sensitive. Supporting this prediction, we find that participants in thematic sets chose significantly less expensive items than participants who chose from taxonomic sets, and that

the effect of category structure on prices paid is mediated by perceptions of similarity among items in the set. Importantly, there was no difference across conditions in satisfaction with the chosen item or the website, suggesting that price differences were driven by perceived parity rather than by shopping or product satisfaction.

## The Effect Of Regulatory Focus On Time Discounting

Rongrong Zhou, Hong Kong University of Science and Technology  
Shenghui Zhao, University of Miami

### ABSTRACT

Consumers often need to allocate resources to satisfy their present needs and those of the future. Choices in those situations are often driven by personal discount rate, the extent to which one values the future relative to the present. In this research, we examine the influence of regulatory focus on discount rates for hypothetical monetary gains and losses.

### Regulatory Focus and Time Discounting

Regulatory focus theory (Higgins 1998, Pham and Higgins 2005) distinguishes two mechanisms of self-regulation: promotion and prevention, which differ in terms of desired end states and preferred means of attaining one's desired end states. Research on regulatory focus has shown that promotion focus is more sensitive to the presence and magnitude of gains whereas prevention focus induces greater sensitivity to those of losses. The finding of differential hedonic sensitivity has two implications for time discounting. First, the differential sensitivity to gains and losses indicates greater loss aversion for prevention focus than for promotion focus. The shape of the utility function and loss aversion, in particular, have been invoked as an explanation for the sign effect in time discounting (i.e., lower discount rate for future losses than for gains; e.g., Loewenstein and Prelec 1992). That is, a lower discount rate is expected when the utility function exhibits steeper curvature. Given the different shapes of utility function with promotion focus and prevention focus in gain and loss domains, we expect lower discount rate for promotion focus (vs. prevention focus) in the gain domain and the reverse in the loss domain.

Another implication of the differential hedonic sensitivity to gains and losses relates to the role of anticipation. Loewenstein (1987) suggested that savoring from a future positive event leads to a desire to delay the event (i.e., lower discount rate) whereas dread from a future negative event leads to a desire to expedite the event (i.e., lower discount rate). Given the hedonic sensitivity to gains and losses, we expect that promotion-focused individuals will experience greater savoring from future gains than do prevention-focused individuals, resulting in lower discount rates for the promotion group. In contrast, when future losses are involved, we expect dread to be more pronounced for prevention-focused individuals, leading to lower discount rates. Furthermore, promotion-focused individuals may

assign greater weight to savoring because they perceive the extent of savoring as more diagnostic for making decisions (the same logic applies to dread for prevention-focused individuals; cf. Pham and Avnet 2004).

In sum, drawing on research in regulatory focus, we expect a lower discount rate for promotion focus than for prevention focus when the tradeoff involves two future gains. However, when two future losses are involved, we expect the reverse to hold true. This prediction was tested in three laboratory experiments.

### Empirical Tests

In study 1 ( $N = 58$ ), we measured discount rates through a matching procedure (e.g., Chapman 1996), and then after a 30-minute delay measured participants' chronic promotion and prevention strengths. We then regressed discount rates on chronic promotion and prevention strengths for gains and losses separately. As predicted, chronic promotion strength significantly reduced discount rates in the gain domain (prevention strength had no effect), but in the loss domain, prevention strength significantly lowered discount rates (promotion strength had no effect). These results provided preliminary support for our hypothesis. However, they could not establish causality. To address this issue, we manipulated regulatory focus in study 2.

In study 2 ( $N = 52$ ), we measured discount rates through the same matching procedure as in study 1, but manipulated participants' situational strengths for promotion and prevention via a priming procedure (Lockwood, Jordon, and Kunda 2002). Our hypothesis was supported. Discount rates were significantly lower for promotion-primed participants than for prevention-primed ones for future gains. In contrast, for future losses, promotion-primed participants indicated higher discount rates than their prevention-primed counterparts.

In study 3 ( $N = 88$ ), instead of the matching procedure, we measured discount rates through choices in more familiar tasks (annuity payment for gains and loan repayment for losses). The goal is to test the robustness and generalizability of the findings from the previous two studies. In addition, we included a control group who were not primed with either promotion or prevention focus. Consistent with our prediction, promotion-primed participants

indicated significantly lower discount rates for gains than prevention-primed participants or those in the control group. Conversely, for losses, the prevention group showed lower discount rates than promotion or control groups.

### General Discussion

The present research contributes to the behavioral research on time discounting by highlighting the importance of motivational influences, which has been largely neglected in the existing research. Our results suggest that motivational factors matter and should be incorporated into theories of time discounting. Moreover, our research contributes to the growing interest in individual differences in decision making and judgmental biases (e.g., Stanovich and West 1998). To marketing practitioners, our results suggest a new way of market segmentation for marketers of intertemporal goods (products and services that involve intertemporal tradeoffs, e.g., appliances, credit cards, etc.). To this end, identifying observable markers of market segments with different regulatory foci may be a fruitful avenue for future research. Second, marketers of different intertemporal goods may also want to employ different marketing mixes in accordance with their specific products since products themselves may activate or prime different regulatory focus (Zhou and Pham 2004).

Future research may examine more closely the underlying causes of the effects reported here by directly measuring or manipulating the mediating constructs (e.g., anticipation). Moreover, the present research relies on responses to hypothetical questions. Therefore, future research should aim to determine the robustness and size of the effect in field settings.

### REFERENCES

Chapman, Gretchen B. (1996), "Temporal Discounting and Utility for Health and Money," *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 22, 771-791.

- Higgins, E. Tory (1998), "Promotion and Prevention: Regulatory Focus as a Motivational Principle," in *Advances in Experimental Social Psychology*, Vol. 30, ed. Mark P. Zanna, San Diego, CA: Academic Press, 1-46.
- Lockwood, Penelope, Christian H. Jordan, and Ziva Kunda (2002), "Motivation by Positive or Negative Role Models: Regulatory Focus Determines Who Will Best Inspire Us," *Journal of Personality and Social Psychology*, 83 (October), 854-64.
- Loewenstein, George (1987), "Anticipation and the Valuation of Delayed Consumption," *Economic Journal*, 97 (September), 666-684.
- Loewenstein, George and Drazen Prelec (1992), "Anomalies in Intertemporal Choice: Evidence and an Interpretation," *Quarterly Journal of Economics*, May, 573-597.
- Pham, Michel Tuan and Tamar Avnet (2004), "Ideals and Oughts and the Reliance on Affect versus Substance in Persuasion," *Journal of Consumer Research*, 30 (March), 503-518.
- Pham, Michel Tuan and E. Tory Higgins (2005), "Promotion and Prevention in Consumer Decision Making: The State of the Art and Theoretical Propositions," in *Inside Consumption: Consumer Motives, Goals, and Desires*, ed. S. Ratneshwar and David Glen Mick, London, UK: Routledge, 8-43.
- Stanovich, Keith E. and Richard F. West (1998), "Individual Differences in Rational Thought," *Journal of Experimental Psychology: General*, 127 (2), 161-188.
- Zhou, Rongrong and Michel Tuan Pham (2004), "Promotion and Prevention across Mental Accounts: When Financial Products Dictate Consumers' Investment Goals," *Journal of Consumer Research*, 31 (June), 125-135.

For further information contact: Shenghui Zhao; PO Box 248147; Marketing Department, 517 KE; University of Miami; 5250 University Drive; Coral Gables, FL 33124.

**Chronic Goal Orientation: Extending Prior Consumer Research And Regulatory Focus Theory**

William O. Bearden, University of South Carolina  
Kelly L. Haws, University of South Carolina

**ABSTRACT**

Promotion-focused and prevention-focused systems identified by regulatory focus theory are distinguished, in part, by two types of goal orientations: ideals (i.e., aspirations, hopes, and wishes) and oughts (i.e., obligations, duties, and responsibilities). Prior consumer research has demonstrated the ability of these two regulatory systems to moderate a variety of consumer and marketing phenomena, including consumer decision-making, buyer-seller gain-loss perceptions, and responses to persuasive messages. As such, regulatory focus has been found to impact a variety of consumer behaviors.

This paper extends prior research by examining (1) whether or not consumer responses elicited to represent ideals are subject to self-deceptive

enhancement biases and responses elicited to represent oughts are subject to impression management biases and (2) whether these effects occur in situations involving both measured and experimentally manipulated regulatory focus orientations. In addition, the various measures and manipulations of regulatory focus are evaluated, and recommendations are provided with respect to the use of regulatory focus measures and manipulations. These issues are examined in a series of studies designed to determine whether caution is needed when studying chronic goal orientation.

For further information contact: William O. Bearden; Department of Marketing; Moore School of Business; University of South Carolina; 1705 College Street; Columbia, SC 29208; bearden@moore.sc.edu



## Effects Of Prior Outcomes In Sequential Choice: Goal Target Or Generalized Mental Accounting?

Mauricio M. Palmeira, Indiana University

### ABSTRACT

Imagine a couple that has the habit of going out for dinner followed by a movie. As they like to try new restaurants, sometimes they have great dinners, but sometimes they have disappointing ones. Consider that in a day that they had a wonderful dinner they are faced with two movie options: movie A, which everyone agrees it is good, and movie B, which some people say it is better than A, while others say it is worse. Which movie are they more likely to choose? What if they had had a bad dinner?

Consumption choices made after experiencing the outcome of previous decisions is a quite frequent situation. In fact, all consumer choices can be thought as being part of a sequence of decisions and Novemsky and Dhar (2005) were the first to investigate this situation. They proposed that the outcome of an initial choice causes an update in one's target level of goal achievement that influences subsequent related choices. In our dinner and movie example, both activities can be viewed as means to achieve an enjoyment goal. An initial positive experience (great dinner) produces an upward shift in the couple's goal of enjoyment, causing the couple to seek a higher level of enjoyment in a subsequent choice. Conversely, an initial negative experience (disappointing dinner) sets a lower enjoyment goal for the couple to be pursued through the movie experience. Based on this goal shift mechanism, Novemsky and Dhar (2005) derived predictions that were tested and supported using choice situations involving a risky alternative and a safe one, like the dinner and movie scenario.

This article builds on Novemsky and Dhar (2005) proposing a new mechanism for sequence of consumption situations. The proposed mechanism is also based on consumer goals, but makes distinct predictions. Specifically, a broader conceptualization of mental accounting (Thaler 1985) is advanced, which accommodates both financial and non-financial activities. Building on people's preferences for separating and combining events (Linville and Fischer 1991) and the effects of prior monetary outcomes on gambling behavior (Thaler and Johnson 1990), this article proposes an alternative theory for consumer behavior in sequence of consumptions based on consumers' risk preferences for specific goals or mental accounts. A positive experience that refers to one mental account will lead to increased risk seeking behavior, whereas a negative experience

will lead to decreased risk seeking. This expanded theory is named the generalized mental accounting theory to reinforce that it refers to the same mental accounting processes, but no longer restricted to financial activities. This new conceptualization suggests that the range of applications of mental accounting is much broader than initially conceived.

A series of experiments were designed contrasting the predictions from each theory. Experiment 1 followed the methodology of previous research (Novemsky and Dhar, 2005) and sought further evidence for the goal target mechanism using different scenarios. Results were in opposition of the ones documents in previous research and suggested that results based on this method might be affected by scenario specific features that do not allow a clear assessment of the mechanism behind the effect.

Experiment 2 solved this problem and it was able to provide support for the contribution for the generalized mental accounting mechanism as an important driver of the behavior in sequence of consumptions. Participants in experiment 2, we asked to consider two goals that were mapped into two attributes of a service. In each of the two conditions, the initial experience was positive in one goal, but negative in the other. The pattern of choices indicated that participants were more willing to take a chance in the goal that had a positive balance than in the goal that had a negative balance, as predicted by generalized mental accounting. Contrary to goal target, a positive experience in one goal did not lead to a choice of an option with the highest goal achievement in that same goal.

Experiment 3 provided further evidence for the generalized mental accounting mechanism using a willingness to pay measure. Participants were asked to indicate how much they would be willing to pay to trade a ticket for a show that divided opinions (some thought it was good, some thought it was bad) for a ticket to a show considered good by the vast majority of consumers. Half of the participants read a scenario in which they had been to a disappointing show the night before, whereas half of the participants were asked to imagine having attended a great show the night before. As predicted by the generalized mental accounting mechanism, participants in the initial negative experience were willing to pay a higher price for the certainly good show than participants in the initial positive experience.

The pattern of results suggests that although both mechanisms are expected to operate at the same time, the influence of generalized mental accounting seems to be stronger than the influence of the goal target mechanism.

For further information contact: Mauricio M. Palmeira; [mpalmeir@indiana.edu](mailto:mpalmeir@indiana.edu); Marketing department; 1309, E. 10<sup>th</sup> St; Bloomington, IN 47404.

### Predecisional Bias Among Fluid Choice Sets

Noah J. Goldstein, Arizona State University  
Vladas Griskevicius, Arizona State University  
Robert B. Cialdini, Arizona State University

#### ABSTRACT

Although consumers often make purchase decisions after viewing a single choice set that contains all of the available alternatives, there are many instances in which they have an opportunity to select from a more expansive choice set after forming a preference from a more limited choice set. What effect will deciding upon a preference for an alternative have on a consumer's final decision when the choice set is more fluid—that is, when it is expanded to include many other alternatives? Because the existing literature on predecisional biases is limited to static choice sets (see Brownstein, 2003)—that is, choice sets in which no new alternatives are added—the extant literature does not currently provide a clear answer.

The literature that appears most relevant in addressing this question is the research on the phenomenon of predecisional distortion, which is defined as how “a preference for one brand, no matter how tentative or private, can lead to the evaluation of subsequent information as too supportive of the currently leading alternative” (Russo, Medvec, and Meloy 1996, p. 438). Indeed, researchers have found that individuals who were considering two roughly equivalent alternatives came to distort new information about the initially preferred alternative in a way that was disproportionately supportive of that alternative, confirming the existence of predecisional distortion (Russo et al., 1996; Russo, Meloy, and Medvec 1998).

Study 1 was designed to investigate whether consumers have a predecisional bias toward an initially preferred alternative such that they are disproportionately likely to choose that alternative when the final choice set is expanded to include several other, equally desirable alternatives. The hypothesized bias toward the initially preferred alternative would be empirically found if participants tend to choose their initially preferred alternative among the other two alternatives at a rate statistically greater than chance—that is, at a rate greater than 33.33% for a final choice set with three alternatives. Study 1 was also designed to investigate whether this novel type of predecisional bias might be moderated by consumers' knowledge or lack of knowledge (while considering among the more limited choice

set) that they will be able to choose from an additional set of alternatives later. Thus, Study 1 was designed not only to examine whether predecisional biases do occur among fluid choice sets, but also whether perceived finality of the decision moderates this effect. In Study 1, participants were first asked to review two sets of CDs that were nearly identical to one another in terms of a given participant's overall valuation of the sets. Participants were asked to state which one of the two they prefer—half of the participants were led to believe that this would be their only choice, whereas the other half were informed that they would later get to choose from additional alternatives.

The data revealed that regardless of awareness condition, participants were disproportionately likely to choose the initially preferred alternative in the final choice set, indicating that the predecisional bias effect does occur among fluid choice sets—even when individuals are made fully aware that there will be several additional alternatives from which to choose.

The primary purpose of Study 2 was to examine the role of four potential mediating mechanisms of this bias by investigating the circumstances under which the bias exists and ceases to exist: First, individuals in such situations might be encouraged to use the heuristic of consistency (see Cialdini and Trost, 1998). Simply put, most individuals are motivated to think and act consistently with their earlier thoughts and actions. When individuals are uncertain as to how to act, they tend to use heuristics. The consistency heuristic is a mental shortcut whose premise is that acting consistently with prior thoughts and actions is generally the most effective course of action to take in a given situation. A second potential mechanism could be that when participants state their initial preference, they generate a set of reasons for that preference and then later rely on those reasons. Generating reasons for one's decisions has been demonstrated to enhance one's confidence that one has made the most effective choice (e.g., Maio, Olson, Allen, and Bernard, 2001). Thus, when making the final decision between the initially preferred product and the additional alternatives, consumers might simply access those previously generated reasons and decide, on the basis of those pre-existing reasons, that the evidence favors the

initially preferred product. A third possible mechanism for this effect could be that when choosing among the final choice set, participants make thoughtful, logical inferences about their initial preference. Specifically, when making a final choice, participants might think back to their initial preference and infer that this product must have been superior in some way, regardless of whether or not particular reasons for that choice are also accessed at the time (e.g., Kunda, 1987). Such a rational inference likely necessitates the availability of sufficient cognitive resources during the final decision. Finally, a fourth possible mechanism could be cognitive dissonance (Festinger, 1957).

In Study 2, we sought to uncover the mediating mechanisms of the effect via the introduction of a potential moderator of the effect: cognitive load. Using the experimental paradigm from Study 1, the introduction of a cognitive load manipulation occurred during the initial preference choice, during the final choice, during both choices, or during neither choice. Thus, the design was a 2 (First choice set: Load vs. No Load X 2 (Second choice set: Load vs. No Load) between participants design.

The results of Study 2 revealed that the bias failed to occur in the two conditions in which a cognitive load was induced during the final choice set, ruling out consistency, reason generation, and cognitive dissonance as possible mediators and pointing to consumers' use of thoughtful inferences about their initial decision as the most likely mediator for the effect.

#### REFERENCES

- Brownstein, A. L. (2003). Biased predecision processing. *Psychological Bulletin*, *4*, 545-568.
- Brownstein, A. L., Read, S. J., & Simon, D. (2004). Effects of individual expertise and task importance on pre-decision reevaluation of alternatives. *Personality and Social Psychology Bulletin*, *30*, 819-904.
- Cialdini, R. B., & Trost, M. R. (1998). Social influence: Social norms, conformity and compliance. In D. T. Gilbert & S. T. Fiske (Eds.), *Handbook of Social Psychology* (4 ed., Vol. 2, pp. 151-192). New York, NY, US: McGraw-Hill.
- Davidson, J. R., & Kiesler, S. B. (1964). Cognitive behavior before and after decisions. In L. Festinger (Ed.), *Conflict, decision, and dissonance* (pp. 10-19). Stanford, CA: Stanford University Press.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Jecker, J. D. (1968). Conflict and dissonance: A time of decision. In R. P. Abelson et al. (Eds.), *Theories of cognitive consistency: A sourcebook* (pp. 571-576). Chicago: Rand McNally.
- Kunda, Z. (1987). Motivated inference: self-serving generation and evaluation of causal theories. *Journal of Personality and Social Psychology*, *53*, 636-647.
- Maio, G. R., Olson, J. M., Allen, L., & Bernard, M. M. (2001). Addressing discrepancies between values and behavior: The motivating effect of reasons. *Journal of Experimental Social Psychology*, *37*, 104-117.
- Russo, J. E., Medvec, V. H., & Meloy, M. G. (1996). The distortion of information during decisions. *Organizational Behavior and Human Decision Processes*, *66*, 102-110.
- Russo, J. E., Meloy, M. G., & Medvec, V. H. (1998). Predecisional distortion of product information. *Journal of Marketing Research*, *35*, 438-452.

For further information, contact: Noah Goldstein, Department of Psychology, Arizona State University, Tempe, AZ 85287-1104. Email: Goldstein@asu.edu.

## The Impact Of Counterfactual Thinking On Customer Purchase Response

Kai-Yu Wang, University of Wisconsin-Milwaukee  
Minli Liang, State University of New York-Brockport  
Laura A. Peracchio, University of Wisconsin-Milwaukee

### ABSTRACT

Counterfactual thinking (CFT) refers to the process of reflecting on past events and simulating alternative possible outcomes. Consumer researchers have explored related issues, such as how anticipation of counterfactual regret influences decision-making and behavior (Hetts, Boninger, Armor, Gleicher, Nathanson 2000) or how CFT affects information processing (Krishnamurthy and Sivaraman 2003). However, scant research has investigated how and when CFT influences consumers' product evaluations after a purchase success or failure.

Research investigating CFT has found that moods and counterfactual direction may serve as reciprocal antecedents and consequences of each other (Sanna, Turley-Ames, and Meier 1999). For example, suppose a consumer finds that a recently purchased product does not meet the consumer's expectations; the consumer is not happy about the result. As an antecedent, the unhappiness produces upward counterfactuals. The consumer might think, "If I could choose again, I might have made more comparisons and could have bought a much better product." The more the consumer thinks of the negative consequences of the chosen product and the positive consequences of other alternatives, the more dissatisfied the consumer becomes. This dissatisfaction will inevitably produce more upward counterfactuals. Consequently, upward CFT and mood constitute a reciprocal cycle.

We propose that need for cognition (NFC; Cacioppo, Petty, and Kao 1984) may provide a potential boundary for the reciprocal cycle of upward CFT. From a theoretical point of view, an investigation of the moderating effect of cognitive elaboration on the CFT reciprocal cycle may provide an alternative explanation of a contradictory finding.

Two experiments were designed to examine the moderating role of CFT and NFC on product evaluations. The first experiment investigates whether high NFC can break the reciprocal cycle of upward CFT when people encounter a purchase failure and explores the effects that underlie this process. Experiment 2 provides a replication and extension of experiment 1 to establish the robustness of the documented findings.

In experiment 1, two computer purchase scenarios (positive-outcome and negative-outcome) and two thinking instructions (no CFT instruction and CFT instruction) were manipulated. We hypothesize that in a negative purchase outcome condition, respondents engaging in more extensive purchase scenario processing (high NFC) should produce more favorable product evaluations when a CFT instruction is provided after purchase. In contrast, respondents engaging in less extensive purchase scenario processing (low NFC) should produce more favorable product evaluations when a CFT instruction is not provided after purchase. The results are consistent with our predictions. Examination of thought measures provides additional support for the hypotheses.

Experiment 2 replicates the negative-outcome conditions by replacing the CFT instruction with a follow-up customer service survey. In addition, processing extensity was manipulated with motivation instead of being measured as NFC in experiment 1. Our procedure explicitly manipulated respondents' motivation to engage in extensive processing of purchase scenarios in experiment 2.

We propose that the moderating effects of NFC and thinking instruction observed in experiment 1 should be replicated under negative purchase outcome conditions. Specifically, when a follow-up survey was provided after purchase, individuals with high processing motivation evaluated the product more favorably than individuals with low processing motivation. But, when no follow-up survey was given, respondents with low processing motivation evaluated the product more positively than respondents with high processing motivation. Our predictions are supported. Examination of thought measures also provided additional support for the predictions. The results in experiment 2 are important in advancing our understanding of the effects that underlie the process in negative purchase outcome conditions.

Together, the two studies support our proposed theorizing regarding how NFC and CFT can affect people's product evaluations after a positive or a negative purchase experience. The studies reveal that with a CFT instruction, individuals engaging in more extensive processing generate more downward

counterfactuals than upward counterfactual after a purchase failure, resulting in higher product evaluations. Individuals engaging in less extensive processing invoke upward CFT as part of a reciprocal cycle after a purchase failure, thus producing lower product evaluations. Furthermore, we find that without a CFT instruction, individuals who engage in more extensive processing generate lower product evaluations after a purchase failure than those who engage in less extensive processing do.

The findings of the two studies contribute to both psychology and consumer research. For psychology, this research suggests that sufficient resources or ability can break the negative cycle that consumers may encounter after a purchase failure. The results not only offer a resolution to the previous contradictory findings, but also provide evidence that cognitive ability or resources impacts the direction of CFT.

Our contribution to consumer research is also substantial. Our research suggests that high NFC or motivated consumers generate more downward

counterfactuals and fewer upward counterfactuals, thus producing higher product evaluations if they are given a follow-up customer service survey after a purchase failure. It extends the research domain from the structure of counterfactual thoughts to product evaluation.

From a managerial standpoint, this research has implications for postpurchase marketing efforts. Specifically, marketers can use some postpurchase efforts, such as a follow-up customer service survey in experiment 2, to influence consumers' CFT direction. Comment cards and satisfaction surveys are widely used in the service industry, such as hotels, restaurants and etc. This research enhances our understanding of how postpurchase marketing influences consumers' product evaluations.

For further information contact: Kai-Yu Wang, Department of Marketing, Sheldon B. Lubar School of Business, University of Wisconsin-Milwaukee, P.O. Box 742, Milwaukee, WI 53201-0742, wangk@uwm.edu.

## Motivated Taste Change For Diet Coke

Jason Riis, New York University  
Samuel McClure, Princeton University

### ABSTRACT

While a number of studies have shown that changes in preference can occur with changes in consumption and exposure (Rozin, 1999), the question of whether taste change can be facilitated by motivation is more controversial (Loewenstein, 2001). Evidence for motivated taste change comes mostly from studies of dissonance, whereby people are thought to reduce negative feelings of disappointment by shifting their preferences to objects that happen to be in their possession (Brehm, 1956). In the present work, we investigate taste change that is motivated by concerns about health, and find that such concerns can influence awareness of taste change, and that this awareness has implications for future choice intentions.

The particular source of motivation that we investigate is the widespread concern about the health effects of sugared soda consumption. Obesity is considered by some public health experts to be the second leading cause of preventable death in America (Mokdad et al., 2000), and at least a third of American adults are attempting to lose weight (Kruger et al., 2004). Sugared sodas are thought to be one of the major contributors to the obesity epidemic (Popkin & Nielson, 2003), and diet sodas are rapidly gaining market share. In a laboratory study with 50 heavy drinkers of Coca Cola, we found that daily consumption of diet soda did lead to increased liking of Diet Coke, but that only participants who were concerned about the health effects of sugared cola recognized that this taste change had occurred.

In a web survey, undergraduates were prescreened for heavy consumption of Coca Cola (all drank at least one can per week with a mean of 3.8 cans per week, and none were regular drinkers of diet

soda) and for their level of concern about the effects of sugared soda on their health, with half of the participants being highly concerned, and half being minimally concerned. The two health concern groups did not differ in their soda consumption habits. Both groups were given a two week supply of diet soda, with the instruction to drink one can each day, and to refrain from drinking sugared soda. (Compliance, reported anonymously, was very high.) Two kinds of taste tests were given, both at the beginning and end of the two week consumption period. In blind tests, participants drank several colas in clear, unlabelled plastic cups, and then rated the taste of each one on a 9 point scale (anchored at "dislike very much" and "like very much"). In "branded" taste tests, participants opened a can of Diet Coke, poured approximately one ounce into a clear plastic cup, tasted it, and then rated the taste using the same 9 point scale.

Both high-concern and low-concern participants revealed a large (4/5ths of a standard deviation) increase in liking of Diet Coke following the two-week consumption period. However, with the branded test, only the high concern participants revealed an increase in liking. Furthermore, the high concern subjects reported a greater increase in intention to purchase Diet Coke in the future. These results suggest that motivation for taste change may be independent of its actual occurrence, but that it may be required for awareness of its occurrence, and, importantly, for the intent to act on that taste change.

For further information contact: Jason Riis; Department of Marketing; Stern School of Business; New York University; 40 West 4<sup>th</sup> Street, Suite 809; New York, NY 10012; Tel: 212-998-0727; Email: jriis@stern.nyu.edu

## Advertising and Narrative Transportation

Session Discussant: Dawn Iacobucci, University of Pennsylvania

### Process-Focused Mental Simulation and Narrative Transportation

Jennifer Edson Escalas, Owen School of Management, Vanderbilt University

Mental simulation is the imitative mental representation of some event or series of events (Taylor and Schneider 1989). Mental simulations are usually in the form of stories or narratives (Fiske 2004). When people simulate events, they frequently think about their own actual or potential behaviors, creating behavioral episodes (i.e., stories) in which they are the main character. Green and Brock (2000) find that stories persuade via transportation, which is defined as “immersion into a text,” that is, the extent to which individuals become “lost” in a story (p. 702). Transportation leads to persuasion through reduced negative cognitive responding, realism of experience, and strong affective responses (Green and Brock 2000). Mental simulation has narrative structure; therefore, people engaged in simulation may be transported by their self-generated stories. This should result in less critical analysis of ad arguments, fewer negative thoughts, and strong affective responses, which in turn, should enhance persuasion, even in response to an advertisement with weak arguments.

Escalas (2004) finds that ad viewers ignore argument strength when they are simulating, consistent with transportation theory. Simulation leads to narrative thought structure and narrative transportation, which in turn have a positive effect on attitudes. Furthermore, transportation affects attitudes by evoking positive feelings and reducing critical cognitive responses. The ability of narrative transportation to distract consumers’ attention away from weak arguments in a high involvement setting has also been shown in the context of narrative self-referencing, which can be similar to mental simulation (Escalas forthcoming).

Recent research in social psychology indicates that mental simulations that focus on the processes involved in goal-directed activities, rather than on favorable outcomes, are better able to help individuals achieve their goals (Taylor et al. 1998). Recent consumer research has extended this finding to advertising, where process-focused mental simulation was found to enhance behavioral intentions towards advertised products (Escalas and

Luce 2003). Escalas and Luce (2003) also find that participants instructed to focus on the process of using a product are more sensitive to argument strength, such that process-focused instructions enhance the favorable effect of strong arguments and the unfavorable effect of weak arguments.

However, in subsequent research, Escalas and Luce (2004) found a boundary condition for this effect: under conditions of high involvement, process-focused thought reduced the differential effect of strong versus weak arguments found in the low to moderate involvement conditions. We postulate that a possible mechanism for this apparent distraction effect is narrative transportation. At SCP, we will present results of a second study (already completed) demonstrating that under conditions of high involvement, in this case operationalized by high vs. low Need for Cognition (Cacioppo et al. 1996), process-focused simulation leads to narrative transportation. We again find that under these conditions, consumers form positive brand attitudes even in the face of weak ad arguments. Additionally, we are in the process of collecting data on a third study that measures narrative transportation (Green and Brock 2000), positive affect, and cognitive responses. This study will test whether transportation and its correlates mediate the interactive effect of involvement and process- vs. outcome-focused mental simulation on persuasion. We hypothesize that narrative transportation will occur only in the presence of both high involvement, process-focused mental simulation.

### Narrative Transportation and Advertising

Jing Wang, University of Iowa  
Bobby J. Calder, Northwestern University

An important aspect of consumers’ media experience is narrative transportation. Based on Green and Brock (2000) and Gerrig (1993), we define transportation as a process of narrative information processing in which a person not only attends to information but is also absorbed into the flow of a story in a pleasurable and active way (Wang and Calder forthcoming). We found that a highly transporting media context enhances the effectiveness of an ad that appears in such context if the ad does not intrude on the transportation experience. However, when the ad was intrusive to



the transportation experience, a high level of media transportation reduces ad effectiveness.

At SCP 2007, we will present results of two studies that examine the antecedents and consequences of transportation and how they affect advertising that appears in such media contexts. In the first study, limited cognitive resources reduced transportation and therefore eliminated the interrupted transportation effects found by Wang and Calder (forthcoming). In the second study, we found that a full-page ad that appeared in the middle of the story and intruded on the transportation experience enhanced participants' recognition for other advertising messages that appeared in the footers of the same story. Without the intrusion by the full-page ad, participants were more likely to ignore the footer advertising messages.

#### **Transportation and Extrinsic Involvement with Media as Predictors of Advertising Effectiveness**

Edward M. Malthouse, Northwestern University  
Bobby J. Calder, Northwestern University

Many studies have demonstrated that the media context of an ad can affect the effectiveness of that ad. Recently there has been theoretical progress in understanding these effects in terms of how the experience of a medium affects the processing of ads. Transportation refers to the intrinsic engagement of a person in the content of the medium, how caught up they are in the content per se. Another major experience, which we call explicit involvement, is one of being involved with the medium as a way of gaining some favorable outcome, such as learning something from the content that can be used in the person's life. In this study both of these experiences, transportation and explicit involvement, are measured specific to a magazine that a person has read. A sample of 70 magazines is used along with a national sample of 25,000 consumers. Each consumer was shown 20 ads that appeared in a particular issue of the magazine they read. Consumers were asked effectiveness questions regarding whether they recognized the ad as one they had looked at and their reactions to the ad. The data is used to analyze the relationship between transportation and extrinsic involvement and the advertising effectiveness measure controlling for other variables. Of particular

theoretical interest is how this relationship depends on the type of product category being advertised and the type of ad execution, including placement and size of the ad in the magazine.

#### **REFERENCES**

- Cacioppo, John T., Richard E. Petty, Jeffrey A. Feinstein, and W. Blair G. Jarvis (1996), "Dispositional Differences in Cognitive Motivation: The Life and Times of Individuals Varying in Need for Cognition," *Journal of Personality and Social Psychology*, v. 119, n. 2, pp. 197-253.
- Escalas, Jennifer Edson (2004), "Imagine Yourself in the Product: Mental Simulation, Narrative Transportation, and Persuasion," *Journal of Advertising*, v. 33, n. 2 (Summer), pp. 37-48.
- Escalas, Jennifer Edson (forthcoming), "Narrative versus Analytical Self-Referencing and Persuasion," *Journal of Consumer Research*.
- Escalas, Jennifer Edson and Mary Frances Luce (2003), "Outcome- vs. Process-Focused Thought and Advertising," *Journal of Consumer Psychology*, v. 13, n. 3, pp. 246-254.
- Escalas, Jennifer Edson and Mary Frances Luce (2004), "Understanding the Effects of Process-versus Outcome-Focused Thought during Advertising," *Journal of Consumer Research*, v. 31, n. 2 (September), pp. 274-285.
- Fiske, Susan T. (1993), "Social Cognition and Social Perception," *Annual Review of Psychology*, v. 44, pp. 155-194.
- Gerrig, Richard J. (1993), *Experiencing Narrative Worlds: On the Psychological Activities of Reading*, New Haven, CT: Yale University Press.
- Green, Melanie C. and Timothy C. Brock (2000), "The Role of Transportation in the Persuasiveness of Public Narratives," *Journal of Personality and Social Psychology*, v. 79, n. 5, pp. 701-721.
- Taylor, Shelley E., Lien B. Pham, Inna D. Rivkin, and David A. Armor (1998), "Harnessing the Imagination: Mental Simulation, Self-Regulation, and Coping," *American Psychologist*, v. 53, n. 4, pp. 429-439.
- Taylor, Shelley E. and Sherry K. Schneider (1989), "Coping and the Simulation of Events," *Social Cognition*, v. 7, n. 2, pp. 174-194.
- Wang, Jing and Bobby J. Calder (forthcoming), "Media Transportation and Advertising," *Journal of Consumer Research*.

### New Insights into Post-experience Memory Distortion

Session Chair: Kunter Gunasti, Pennsylvania State University  
 Session Discussant: Dipankar Chakravarti, University of Colorado, Boulder

#### A Reexamination Of Post-Experience Advertising Effects: The Moderating Roles Of Accuracy And Impression Motivation

Kunter Gunasti, Pennsylvania State University  
 Hans Baumgartner, Pennsylvania State University  
 Min Ding, Pennsylvania State University

Past research suggests that advertising can transform what consumers remember about an actual experience with a product even when the exposure to advertising occurs after the product experience (i.e., after the fact). Braun (1999) showed that after tasting a bad sample of a fictitious new orange juice brand, participants who were shown imagery ads for the product were more likely to judge the orange juice as much better than it really was and tended to identify better juices than what they had originally tasted. Braun argued that a post-experience imagery ad resulted in verbal and sensual overshadowing of the ambiguous sensory product experience and might even alter a consumer's schema of the brand in question.

Although the post-experience advertising effect has been well established, the underlying mechanisms and potential factors moderating this interesting phenomenon remain inconclusive. A major assumption in past studies has been that subjects are highly motivated to process all the information presented and get highly involved in their product decisions and judgments. In a recent review, Johar, Maheswaran and Peracchio (2006) point out that the potential role of consumer motivation has been overlooked in this literature and suggest that it should be studied more explicitly.

In two studies, we extend past findings by demonstrating the moderating effects of both accuracy and impression motivation. We show that increasing participants' accuracy motivation (both through incentives and a verbal manipulation) elevates their outcome involvement to levels found in real-life purchase situations and eliminates the misleading advertising effects. We also show that post-experience advertising increases impression motivation and that its effects are more pronounced for consumers high in social desirability.

#### REFERENCES

- Braun, Kathryn. A. (1999), "Postexperience Advertising Effects On Consumer Memory," *Journal of Consumer Research*, 25(4), 319-34.
- Johar, Venkataramani, Gita, Durairaj Maheswaran, and Laura Peracchio (2006), "MAPping the Frontiers: Theoretical Advances in Consumer Research on Memory, Affect, and Persuasion," *Journal of Consumer Research*, 33(1), 139-150

For further information contact: Kunter Gunasti, 421A Business Building, Smeal College of Business, Penn State University, University Park, PA 16802, E-mail: kunter@psu.edu

#### Fact Or Fiction: Accuracy Of Consumption Memory In An Interactive Context

Arun Lakshmanan, Indiana University  
 H. Shanker Krishnan, Indiana University

Consumers' evaluations of earlier experienced products have been shown to be susceptible to external misleading information. For instance, recollections about product quality and packaging were found to be highly susceptible to misleading suggestions from print advertisements encountered after the consumption episode (Braun 1999; Braun and Loftus 1998). Evidence on the susceptibility of consumption memory for factual information, particularly facts centrally related to a consumption event has remained equivocal.

While the failure in finding misinformation effects for factual information (Cowley and Janus 2004) in prior research is intriguing, it is possible that the context of consumption might yield some insights. We rely on a reconstructive memory account in explaining how misleading information finds its way into consumers' product experience memories. As opposed to the reproductive account of memory, the reconstructive account suggests that individuals' recollections are not of the nature of a video tape recorder wherein accurate and complete records of what was observed is retrieved. Rather, it resembles a piecing together of past events from different cues so as to form an overall memory for an event (e.g. Loftus and Pickrell 1995). Based on this view, we focus on an interactive product consumption context to examine the susceptibility of consumption memory to post-consumption misinformation.

Two studies suggest that consumers' susceptibility to misinformation is robust even when it relates to factual information. Consumers exposed to misleading information about the theme/story of a computer game falsely associated the misleading theme rather than the original theme of the game. Furthermore, for consumers who were highly engaged (versus not) the central dimension was likely to be particularly distinctive, thus not leading to much confusion.

#### REFERENCES

- Braun, Kathryn. A. (1999), "Postexperience advertising effects on consumer memory," *Journal of Consumer Research*, 25(4), 319-34.
- Braun, Kathryn. A. and Elizabeth. F. Loftus (1998), "Advertising's misinformation effect," *Applied Cognitive Psychology*, 12(6), 569-91.
- Cowley, Elizabeth and Eunika Janus (2004), "Not necessarily better, but certainly different: A limit to the advertising misinformation effect on memory," *Journal of Consumer Research*, 31(1), 229-35.
- Loftus, Elizabeth. F. and Jacqueline E. Pickrell (1995), "The Formation of False Memories," *Psychiatric Annals*, 25(12), 720-5.

For further information contact: H. Shanker Krishnan, Kelley School of Business, Indiana University, 1309 E. Tenth Street, Bloomington, IN 47405, E-mail: skrishna@indiana.edu

#### **Consumers Generating Their Own Misinformation: How Passing On Word-Of-Mouth Affects Autobiographical Memory**

Elizabeth Cowley, University of Sydney

The objective of this research is to identify the conditions under which communicating information about a consumption experience distorts the communicator's memory. In order to conform to conversational norms such as keeping the story interesting and relevant, people tend to omit some details (Wyer 2003), distort other details and include extra-event information (Skowronski and Walker 2004). Correcting for the addition of 'extra' information requires conscious acknowledgement of inclusion (Polage 2004). If the goal of the

conversation is to entertain, the story teller is likely to acknowledge the inclusion of new details and exaggerations. If the goal of the conversation is to inform the listener, the story teller will be focused on being informative and may not acknowledge their need to be interesting, coherent, and consistent with their recommendation/condemnation and therefore, are more susceptible to memory distortion.

Three studies were conducted in which participants recounted either a positive or negative consumption episode. In study 1, memory was distorted in the expected direction in the treatment conditions. In study 2, memory was distorted in the expected direction when participants were instructed to be informative, but not when they were instructed to be entertaining. In study 3, participants were primed to be informative or entertaining, memory distortion was found in both conditions.

Previous word-of-mouth (WOM) research has focused on the listener: This work looks at the communicator and the effects of telling their stories on memory and reveals that consumers can create their own post-experience misinformation during WOM. The effect is found when consumers are not aware of that they have added information or exaggerated details. Leading questions and reinforcement by the listener may exaggerate these effects, but are not necessary.

#### REFERENCES

- Skowronski, John J. and W. Richard Walker (2004), "How Describing Autobiographical Events can Affect Autobiographical Memories," *Social Cognition*, 22 (5), 555-590.
- Polage, Danielle C. (2004), "Fabrication Deflation? The Mixed Effects of Lying on Memory," *Applied Cognitive Psychology*, 18 (May), 455-465.
- Wyer, Robert S., Jr. (2003), *Social Comprehension and Judgment: The Role of Situation Models, Narratives, and Implicit Theories*. Mahwah, NJ: Lawrence Erlbaum Associates.

For further information contact: Elizabeth Cowley, Room 541, H69 - Economics and Business Bld, University of Sydney, NSW 2006, Sydney, Australia. Email: E.Cowley@econ.usyd.edu.au

## The “Shaken Self”: Product Choices As A Means Of Restoring Self-View Confidence

Leilei Gao, Stanford University  
Christian Wheeler, Stanford University  
Baba Shiv, Stanford University

### ABSTRACT

Consider the following scenario. Pat and Robin, both aspiring marketing academics, are equally confident about their intelligence. Pat and Robin are each asked to write a short essay titled “I am an intelligent person.” Unfortunately, Pat recently suffered a fracture in his dominant hand from an accident during a ski trip. He, therefore, uses his non-dominant hand to write the essay; Robin writes the essay with her dominant hand. Later, Pat and Robin are confronted with a choice between two options—subscriptions to either the *Wall Street Journal* or *Sports Illustrated*. Assuming that the subscriptions cost the same, is it possible that Pat and Robin would display systematic shifts in preferences for the choice options as a consequence of writing their respective essays? For instance, is it possible that Pat, who wrote the essay with his non-dominant hand, would be more likely to choose *Wall Street Journal* over *Sports Illustrated*? Although intuition might suggest that the task of writing the essay with one’s non-dominant (vs. dominant) hand should not affect subsequent choices, the basic thrust of this article is to suggest otherwise. Specifically, a goal of this paper is to examine the effects of the “shaken self,” that is a momentary lapse in self-confidence on subsequent product choices.

Previous research suggests that self-view confidence depends on the availability of stable evidence in support of that self-view, and that a lack of such confidence motivates efforts to restore it either directly (Festinger 1954; Tiedens and Linton 2001) or indirectly (Steele 1988). The purpose of this research is to extend prior work by examining how subtle situational factors can induce lowered confidence in a particular self-view and thereby affect subsequent product choices. Specifically, we posit that seemingly inconsequential actions, such as writing an essay with one’s non-dominant hand, can lower self-confidence and lead to self-bolstering product choices. Thus, in the scenario presented earlier, we posit that Pat, writing with his non-dominant hand, would begin to experience uncertainty regarding his intelligence. As a result, Pat would display a strong propensity to systematically choose products (such as the *Wall Street Journal*, the more “intelligent” of the two options) that would help him restore his confidence in his intelligence.

In developing our conceptualization, we propose that subtle situational factors that reduce self-confidence will instigate processes aimed at restoring the self-concept. We argue that this restoration can occur via multiple means, including more direct methods (e.g., purchasing products to restore the specific shaken self-dimension) and more indirect methods (e.g., affirming an unrelated self-value). Once the self-restoration has occurred, individuals make choices similar to those whose self-concept was never shaken in the first place. We tested these notions across a series of three experiments. In these experiments, we relied on a previously validated handwriting procedure (Briñol & Petty, 2003) to subtly reduce self-confidence (or not) and tested the effects across three self-dimensions (being exciting, intelligent, and health-conscious). We predicted that this subtle manipulation would lead participants to choose products affirming the shaken self-confidence dimension, unless they were first provided with a means of restoring the self-concept.

In the first experiment, we tested the core hypothesis that those who wrote about a self-dimension with their non-dominant hands would be more likely than dominant hand participants to choose products consistent with that self-dimension. Specifically, participants in this experiment were instructed to write an essay portraying themselves as being exciting. Some participants were assigned to write the essay with their dominant hands; others were assigned to write the essay with their non-dominant hands. Participants then engaged in a purportedly unrelated task choosing between exciting brands (e.g. Apple) and competent brands (e.g. IBM). Results indicated that compared to participants who wrote about their excitingness with their dominant hand, those who wrote with their non-dominant hand were more likely to choose exciting brands in the final choice task.

In the second experiment, we replicated this basic result in a different self-domain (intelligence) and demonstrated the self-view recovery function of product choice. Specifically, participants in this experiment were instructed to write about their intelligence either with their dominant hand or non-dominant hand. The final choice task was between a fountain pen and a pack of candy. As expected, non-dominant hand participants were more likely to

choose the fountain pen (vs. candy) as their study reward. However, this effect was attenuated if non-dominant hand participants were given an opportunity to select self-bolstering products (e.g. a bookstore gift certificate) before the final choice task.

In the third experiment, we replicated the core effect in a third domain (health-consciousness) and showed that indirect means of self-bolstering (i.e., self-affirmation) similarly eliminates the effect of the manipulation on choice. We found that compared to participants who wrote about their healthy life habits with their dominant hand, participants who wrote with their non-dominant hand were more likely to choose a healthy snack (an apple) versus a non-healthy snack (M&M's). This effect, however, was attenuated after participants were given the opportunity to reaffirm a most important value in their life before the final choice task.

The findings from three experiments provide support to the hypotheses that subtle situational factors such as writing about one's self-views with one's non-dominant hand can lower self-confidence and increase the propensity to choose self-view bolstering products. Further, these effects on product choices will be attenuated when participants are first provided with the opportunity to bolster the self-concept either directly (through choosing products from sets of self-view bolstering products) or

indirectly (through self-affirmation). These results highlight the importance of the self-concept and self-view confidence for product choice and illustrate the role of product choices in maintaining stable self-views. We discuss the implications of our findings and present several directions for future research.

For further information contact: Leilei Gao; Stanford Graduate School of Business; Stanford, CA 94305-5015; Tel: (650)-736-1276;  
Email: gao\_leilei@gsb.stanford.edu

#### REFERENCES

- Briñol, P., & Petty R. (2003). Overt head movements and persuasion: a self-validation analysis. *Journal of Personality and Social Psychology*, 84, 1123-39.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117-40.
- Steele, C. M. (1988). The psychology of self-affirmation: sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology*, 21. San Diego, CA: Academic Press, 261-302.
- Tiedens, L. Z., & Linton S. (2001). Judgment under emotional certainty and uncertainty: the effects of specific emotions on information processing. *Journal of Personality and Social Psychology*, 81, 973-88.

**Conspicuous Consumption and Blatant Benevolence: When Romantic Motives Elicit Costly Displays**

Vladas Griskevicius, Arizona State University

Joshua M. Tybur, University of New Mexico

Jill M. Sundie, C. T. Bauer School of Business, University of Houston

Robert B. Cialdini, W. P. Carey School of Business, Arizona State University

Geoffrey F. Miller, University of New Mexico

Douglas T. Kenrick, Arizona State University

**ABSTRACT**

Three experiments examined how romantic motives influence conspicuous consumption and blatant helping. For men, inducing romantic motives increased spending on conspicuous luxuries, but decreased spending on basic necessities. For women, romance boosted public—but not private—helping. Overall, merely being in a romantic state produced strategic self-presentations consistent with costly signaling theory.

**INTRODUCTION**

"We should often blush at our noblest deeds if the world were to see all their underlying motives."

-Francois de La Rochefoucauld

On Valentine's Day 2003, real estate mogul Donald Trump pledged a million dollars to charity (Foundation 2003). A few years earlier, media tycoon Ted Turner pledged a whole billion dollars to humanitarian causes (CNN 1997). While such valiant spectacles of public philanthropy are somewhat common, they nevertheless seem rather puzzling. Trump and Turner, for example, epitomize many people's stereotypes of self-interested and self-serving capitalists; both appear to obtain satisfaction from lavish lifestyles, openly flaunting extravagant private jets, helicopters, and luxury yachts. Yet each of these seemingly selfish tycoons chose to give away a phenomenal amount of their own money to complete strangers. What motives might underlie such costly and apparently selfless deeds?

The current research investigated the idea that self-sacrifice might often be self-presentation. Although it may have been a mere coincidence that Trump's donation was announced on Valentine's Day, there might indeed be a theoretical connection between philanthropic displays, lavish spending, and courtship. In particular, we examined whether public philanthropy—and conspicuous displays of consumption and benevolence—can be elicited by romantic motives. Our framework considers such displays through the lens of costly signaling theory, which posits that these kinds of consumer displays can serve an important communicative function (Miller 2000; Zahavi and Zahavi 1997). In three

studies we examined whether priming people with romantic desires can indeed produce conspicuous displays of consumption and benevolence, the extent to which such displays stem from an actual desire to help or consume versus a desire to strategically self-present, and which theoretically relevant contexts lead men versus women to produce such displays. More broadly, this work was designed to begin testing a promising theoretically novel approach to consumer behavior research.

Donating one's own resources to a charitable cause, as witnessed in the examples of Donald Trump and Ted Turner, seems to be the essence of altruism—an action that provides benefits to others while incurring a cost to the self (Penner et al. 2005). From an evolutionary perspective, natural selection would not appear to favor individuals who give away their own resources to benefit others. However, some such helping is comprehensible in light of kin selection theory (Hamilton 1964), which posits that people's actions are designed not so much to ensure the survival of the individual, but to ensure the survival of the genes making up that individual (Dawkins 1989). Consistent with kin selection theory, animals and people across cultures are more benevolent towards others the more closely the givers are related to the recipients of the aid (Burnstein et al. 1994). Kin selection theory, however, has difficulty explaining benevolence toward non-relatives. Such non-kin helping is understandable in light of the theory of reciprocal altruism (Trivers 1971), whereby social animals and people help non-relatives because the helpers benefit by being helped in return (Axelrod and Hamilton 1981). Yet neither kin selection nor reciprocal altruism can fully explain large philanthropic gifts to non-kin or even handouts to beggars who will never reciprocate these favors.

One theory that may help explain such benevolent and often expensive behaviors is costly signaling theory (Miller 2000; Zahavi and Zahavi 1997). This theory posits that individuals often engage in behaviors that are costly (i.e., involve significant amounts of economic resources, energy, risk, or time) as a way of honestly signaling to others useful information about themselves (Bird and Smith 2005).

Costly signaling theory was developed in the field of behavioral ecology and has garnered much empirical support in studies of both animal signaling and human behavior across cultures (e.g., Lotem, Fishman, and Stone 2002). According to this perspective, public philanthropy is a conspicuous display of resources and generosity that honestly signals an individual's ability to incur costs by sacrificing money and time without reaping the benefits of aiding kin or future reciprocation. Such philanthropic displays, however, do often provide benefits to the signaler by serving to increase the signaler's status and prestige, which may ultimately increase the signaler's ability to attract and retain desirable mates (Miller 2000; Zahavi and Zahavi 1997).

Costly signaling theory has some similarities with classic social theories dating back to Veblen and Mauss. Although these classic sociological theories did not connect conspicuous behaviors directly to mating, they did view public displays of luxuries and magnanimity as a form of social competition, in which the most generous or wasteful individuals gain the most prestige. For example, in the Northwest American Kwakiutl practice of potlatching, local chiefs compete to give away—or sometimes even publicly burn—enormous quantities of their own possessions, often going into great debt to do so. The chief who is able to give away or waste the most resources, and thus able to bear the highest costs, is regarded as the highest status member in the group (Murdock 1923/1970). From a costly signaling perspective, however, such conspicuous displays also serve a conceptually analogous function to that of a peacock's tail: Like the highly disadvantageous behavior of giving away one's resources, a large and luminous tail can only be grown by peacocks who can afford to incur the costs of having such a disadvantageous limb, meaning that the size of the tail honestly signals desirable traits of a peacock, serving primarily to attract mates (Miller 2000; Zahavi and Zahavi 1997).

Much like a large tail for a peacock serves to signal several traits to a mate (e.g., health, good genes, ability to outrun predators), a public act of philanthropy can signal at least two important characteristics about a person: First, it can signal that an individual has plenty of resources; second, philanthropy can signal that an individual has a pro-social personality. Although both resource-related and pro-social traits are generally desirable in a romantic partner, their relative desirability in a mate may be of different importance to men and women (Li et al. 2002). Thus, men and women may be

differentially likely to display one or perhaps both of these traits when motivated to attract a mate.

Although public philanthropy can convey that one has many resources, another popular way to display one's resources is by purchasing lavish and unnecessary things—a concept dubbed “conspicuous consumption” (Veblen 1899). Given that the ability to procure resources is a highly valued trait in a potential mate, the display of resources via conspicuous consumption is likely to increase the probability of attracting a mate. Research on people's romantic choices, however, suggests that this strategy ought to be used more frequently by men than women because women place considerably more emphasis on cues of wealth and status when selecting a romantic partner (Li et al. 2002). Thus, we predict that priming consumers with a romantic motive should lead men, but not necessarily women, to increase their displays of conspicuous consumption (**H1**).

In addition to signaling wealth, public philanthropy can also convey desirable prosocial personality traits (Penner and Finkelstein 1998). However, one doesn't need to give away wads of cash to be seen as helpful. Even a poor person could do public volunteer work in the community, donate blood, or solicit donations for noble causes in a mall—all of which are types of publicly conspicuous pro-social behaviors we call ‘blatant benevolence.’ Not only are such behaviors costly in terms of time and effort, but they can also publicize one's pro-social nature. For example, blood donors often receive public badges saying “I gave blood today,” which essentially proclaim “I am altruistic” (Miller 2000).

Although it is clear that men value pro-social traits in romantic partners, the degree to which a man improves his desirability as a mate by displaying helpfulness is less clear. On the one hand, women seem to value pro-social traits in a man (Brase 2006). On the other hand, women seem to prefer a combination of prosocial and dominance-related traits over either trait alone (Kelly and Dunbar 2001). Moreover, women sometimes prefer as sexual partners men who are openly competitive rather than warm and agreeable (Gangestad et al. 2004). Overall, these lines of reasoning suggest two competing hypotheses: Given that helpfulness is a desirable trait to both genders, a mating motivation will either lead both women and men to blatantly display benevolence (**H2A**); or, given that women seem to prefer helpfulness in men only if this trait is coupled with other traditionally-male traits, mating

motivation might lead to a boost in blatant benevolence only for women (**H2B**).

**STUDY 1: ROMANTIC PRIMES, CONSPICUOUS CONSUMPTION, AND BENEVOLENCE**

An evolutionary perspective generally posits that mental mechanisms should be sensitive to ecological cues indicating particular adaptive problems and opportunities, such as mating opportunities (Kenrick et al. 2003). Much research has shown that various cues can activate specific goal states that can influence behavior (Chartrand 2005). In line with this work, cues related to mating can activate a mating goal and its associated affective responses, which in turn promote functional cognitions and behaviors associated with mating success (Maner et al. 2005). We thus reasoned that if conspicuous displays of consumption or benevolence are costly signals that can function to attract a romantic partner, cues that prime romantic motives (compared to neutral cues) should trigger such displays.

Experiment 1 (N = 159; 70 women) used a 2 (P gender) X 2 (prime: mating vs. control) X 2 (type of behavior (w-s): consumption vs. benevolence) mixed-factorial design. First, Ps viewed either photos of attractive opposite-sex individuals or photos of street buildings. Then, all Ps indicated how much money they would spend on various conspicuous purchases (e.g., nice vacation, new watch, fancy dinner with friends) and how much time they would spend volunteering at various community organizations (e.g., homeless shelter, help build housing for the poor, be a big brother/sister).

Consistent with predictions, an omnibus repeated-measures ANOVA indicated a three-way interaction between P gender, prime, and type of behavior,  $F(1, 155) = 4.41, p = .037$  (see figure 1). Supporting H1, men in the mating prime condition spent more money than men in the control condition,  $F(1, 87) = 3.82, p = .053$ . However, a romantic prime had no effect on women's spending. In line with H2B, women in the mating prime condition were more helpful than women in the control,  $F(1, 68) = 7.10, p = .010$ . However, the mating prime had no influence on men's helping.

-----  
 Insert Figure 1 about here  
 -----

**STUDY 2: CONSPICUOUS VS. INCONSPICUOUS CONSUMPTION AND BENEVOLENCE**

According to costly signaling theory, displays of desirable characteristics are useful if they can be observed, meaning that the expenditure of resources, time, or energy should be focused on displays that can be seen by others and influence one's reputation (Miller 2000; Smith and Bird 2000). Thus, if displays of consumption (resources) function as costly signals for men, a mating motive should not lead men to spend more money on just any purchase; instead, it should increase spending primarily on those purchases that can publicly display wealth to others (**H3**). Similarly, if displays of benevolence function as costly signals for women, a mating motive should not make women more helpful per se; instead, it should produce an increase in the desire to appear more helpful in public (**H4**).

Study 2 (N = 168, 95 women) tested whether priming romantic motives would influence consumption and benevolence when such behaviors were conspicuous versus inconspicuous. The design of the experiment was a 2 (P gender) X 2 (prime: mating vs. control) X 2 (type of behavior (w-s): consumption vs. benevolence) X 2 (conspicuousness (w-s): conspicuous vs. inconspicuous) mixed-factorial design. Unlike in Study 1, Ps read a short romantic or neutral story as the prime. Then, Ps indicated their how much money they would spend on the same conspicuous product as in Study 1, plus an equal number of inconspicuous products (e.g., bedroom alarm clock, home headache medicine, tile cleaner). Ps also indicated their willingness to help in the same public organizations as in Study 1, plus an equal number of situations in which helping was private (e.g., pick up trash by yourself at the park, take shorter showers to conserve water, mail a letter that someone had dropped on the way to the post office). The romantic/control primes, and the in/conspicuous consumption and benevolence items were all carefully pre-tested to ensure that they were all manipulating the intended constructs.

-----  
 Insert Figure 2 about here  
 -----

Consistent with predictions, results indicated a four-way interaction between P gender, prime, type of behavior, and conspicuousness,  $F(1, 163) = 15.12, p < .001$  (see figure 2). Replicating Study 1, men in the mating prime condition spent more money on conspicuous products compared to men in the control condition,  $F(1, 71) = 4.83, p = .031$ . By contrast, consistent with H3, a romantic prime actually reduced men's spending on inconspicuous purchases,  $F(1, 71) = 4.04, p = .048$ . Also replicating Study 1,



women in the romantic prime condition helped more on the conspicuous items compared to women in the control condition,  $F(1, 93) = 6.37, p = .013$ . In contrast, consistent with H4, a mating prime did not influence women's helping when the help was inconspicuous.

### STUDY 3: ROMANTIC PRIMES, PHILANTHROPY, AND HEROIC HELPING

Thus far romantic motives have not produced an increase in conspicuous spending for women. Although the notion that women don't flaunt their wealth to attract mates is in line with predictions, our earlier findings suggest that there may be at least one context in which romantic motives could lead women (and men) to spend more money—when the money goes toward helpful, philanthropic causes. Thus, while romantic motives may not increase women's spending when purchases serve mainly to signal wealth, they might increase spending for both men and women when the spending is conspicuous and can convey both one's helpfulness and one's financial generosity (**H5**).

Given our competing predictions in Study 1, it is also somewhat puzzling that mating motives did not increase men's general helpfulness. Although this lack of a boost in benevolence is consistent with findings that helpfulness, per se, does not always enhance a man's desirability, other findings suggest that men do often perform conspicuous acts of helpfulness: Men are ten times more likely than women, for example, to be the recipients of Carnegie Hero Medals, which are awarded for extreme acts of heroism (Johnson 1996). Heroic behaviors are also consistent with costly signaling theory, where in addition to conveying one's helpfulness, a heroic act can also signal health, vigor, and courage (Hawkes and Bird 2002). Moreover, men who display heroic helpfulness are preferred as romantic partners (Kelly and Dunbar 2001). Thus, we predict that mating motives should increase men's blatant benevolence especially when the helping behavior can signal heroic qualities (**H6**).

Study 3 ( $N = 199$ , 96 women) used a 2 (P gender) X 2 (prime: mating vs. control) X 2 (consumption type: wealth vs. financial generosity) X 2 (benevolence type: helpful vs. heroic) mixed design. The procedure was identical to Study 2, except that all Ps answered an additional set of consumption items related to financial generosity (e.g., donate money to natural disaster victims at a booth on campus, leave an extra large tip at group dinner after noticing that your friends aren't leaving tips, bid on something you don't need at a public auction where

proceeds go to help children with life-threatening illnesses). All Ps also indicated their willingness to help in situations that were high-risk and heroic (e.g., dive into icy water after a stranger falls from a boat in a storm, run into a burning building that has someone trapped inside, confront two armed burglars who are robbing a house).

-----  
Insert Figure 3 about here  
-----

Consistent with the consumption findings in the first two studies, men (but not women) in the mating prime condition spent more on conspicuous purchases than did men in the control,  $F(1,101) = 4.31, p = .040$  (see figure 3). In line with H5, however, when conspicuous spending was related to helping, a romantic prime led both men and women to spend more money compared to participants in the control,  $F(1,195) = 10.64, p = .001$ . Consistent with benevolence findings from the first two studies, women (but not men) in the romantic condition were more helpful in volunteer situations compared to women in the control,  $F(1,94) = 4.57, p = .035$ . However, in line with H6, men (but not women) in the romantic prime condition were more helpful on the heroic items compared to men in the control,  $F(1,101) = 4.84, p = .030$ . As would be expected, there was also a main effect of P gender, whereby men were more heroic across both motive conditions,  $F(1,195) = 57.36, p < .001$ .

### GENERAL DISCUSSION

We began with a basic question: Is public philanthropy or conspicuous consumption related to romantic motivation? Examining this question within a costly signaling framework, three studies showed that priming individuals with photographs of the opposite sex (Study 1) or reading romantic scenarios (Studies 2-3) elicited strategic, context-sensitive, and gender-specific conspicuous displays of consumption and benevolence—the two key self-presentational facets of public philanthropy. Specifically, for men, mating motives increased resource-signaling displays of consumption, leading men to spend more money on luxurious and publicly consumed purchases. Romantic desire, however, did not increase men's spending on inconspicuous products, suggesting that romantic cues did not just lead men to spend more money in general. For women, mating motives increased helpfulness-signaling displays of benevolence, whereby women became more helpful across various public volunteer situations. Romantic desire, however, did not increase women's helpfulness in private, unobservable settings,

suggesting that mating motives mostly led women to want to appear publicly more helpful. Although romantic primes did not lead women to conspicuously consume products that could display their wealth, mating motives did cause both women and men to spend more money when the resources went to charitable causes. The findings are consistent with costly signaling theory and with research indicating that men and women value somewhat different features in a mate. Notably, the specific boosts for men and women occurred despite there being no actual incentive for them to appear wealthier or more helpful. That is, the romantic cues were photographs or imaginary scenarios, and participants could not actually impress a romantic partner with their displays.

Although it is perhaps possible to explain these results after the fact through social learning or social roles models, we are not aware, however, of social role or social learning theorists who have offered a priori predictions for the specific patterns of results obtained here—patterns that follow directly from considering mate preferences and costly signaling theory. At first blush, our findings may seem to confirm the worst suspicions of Puritans, Marxists, and Freudians, who have suspected that showy consumption and charity are narcissistic indulgences of the sexually self-deceptive bourgeoisie. However, a costly signaling framework suggests that different social norms and social policies could shift such behaviors from shopaholic, luxury-fetishizing, or planet-wasting consumption to more pro-social forms of display. For instance, media mogul Ted Turner once bemoaned the influence of the Forbes 400 list of richest Americans, pointing out that it discouraged the wealthy from giving away their money for fear of slipping in the rankings (Plotz, 2006). He instead suggested that a public ranking of top philanthropists could inspire the wealthy to compete in a more beneficial way—in essence, by shifting the signaling arena from conspicuous consumption to blatant benevolence. Perhaps it was not a coincidence that just such a list—the Slate 60—was established the same year that Ted Turner pledged a billion dollars to humanitarian relief. When asked about the reaction of his then-wife Jane Fonda to this donation, Turner fondly reminisced: “It brought tears to her eyes.... She said, I’m so proud to be married to you” (CNN, 1997).

#### REFERENCES

Axelrod, R. and W.D. Hamilton (1981) The evolution of co-operation. *Science* 211: 1390-6.

- Bird, R., & Smith, E.A. (2005). Signaling theory, strategic interaction, and symbolic capital. *Current Anthropology*, 46(2), 221-248.
- Brase, G.L. (2006). Cues of parental investment in attractiveness. *Evolution & Human Beh* 27,145-57.
- Burnstein, E., Crandall, C., & Kitayama, S. (1994). Some neo-Darwin decision rules for altruism. *JPSP*, 67, 773-789.
- Chartrand, T. (2005). The Role of Conscious Awareness in Consumer Behavior. *JCP*, 15(3), 203-210.
- CNN. (1997). Ted Turner donates \$1 billion From: <http://edition.cnn.com/US/9709/18/turner.gift/>.
- Dawkins, R. (1989). *The selfish gene* (new ed.). New York: Oxford University Press.
- Foundation Center, The. (2003). Trump Steps Up Philanthropy in New York City. Retrieved from [http://fdncenter.org/newyork/gitn/ny\\_gitn\\_021403.html](http://fdncenter.org/newyork/gitn/ny_gitn_021403.html).
- Gangestad, S., Simpson, J., Cousins, A. J., Garver-Apgar, C. E., et al. (2004). Women's preferences for male behavioral displays change across the menstrual cycle. *Psych Science*, 15, 203-207.
- Hamilton, W. (1964). The genetical evolution of social behaviour. *J of Theoretical Biology* 1-16; 17-52
- Johnson, R.C. (1996). Attributes of Carnegie medalists performing acts of heroism and the recipients of these acts. *Ethology and Sociobiology*, 17, 355-362.
- Kelly, S. & Dunbar, R. (2001). Who dares wins: Heroism versus altruism in women’s mate choice. *Human Nature*, 12, 89-105.
- Kenrick, D. T., Li, N. P., & Butner, J. (2003). Dynamical evolutionary psychology: individual decision rules and emergent social norms. *Psychological Review*, 110, 3-28.
- Lotem, A., Fishman, M.A., & Stone, L. (2002). From reciprocity to unconditional altruism through signaling benefits. *Proceedings of the Royal Society, London*, B 270, 199-205.
- Li, N.P., Bailey, J. M., Kenrick, D.T., & Linsenmeier, J.A. (2002). The necessities and luxuries of mate preferences: Testing the trade-offs. *JPSP*, 82, 947-955.
- Maner, J. K., Kenrick, D. T., Becker, D. V., Robertson, et al. (2005). Functional projection: How fundamental social motives can bias interpersonal perception. *JPSP*, 88, 63-78.
- Miller, G. F. (2000). *The mating mind*. New York: Doubleday.
- Murdock, G.P. (1923/1970). Rank and potlatch among the Haida. In *Yale University publications in anthropology* (Vol. 13). New Haven, CT: Human Relations are Files Press.

Penner, L.A., Dovidio, J.F., Piliavin, J.A., & Schroeder, D.A. (2005). Prosocial behavior: Multilevel Perspectives. *Annual Review of Psychology*, 56, 365-392.

Plotz, M. (2006). Competitive Philanthropy. From <http://www.slate.com/id/2136385/>.

Slate (2006). The 2005 Slate 60. Retrieved from <http://www.slate.com/id/2136397/>

Trivers, R. L. (1972). Parental investment and sexual selection. In B. Campbell (Ed.), *Sexual selection*

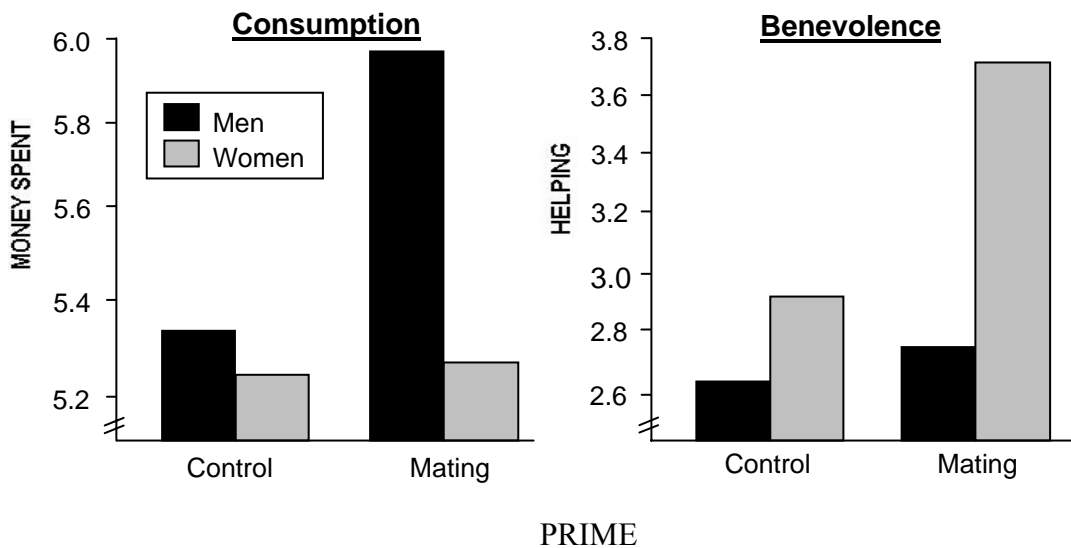
and the descent of man: 1871-1971 (pp. 136-179). Chicago: Aldine.

Veblen, T. (1899/1994). *The theory of the leisure class*. New York: Dover.

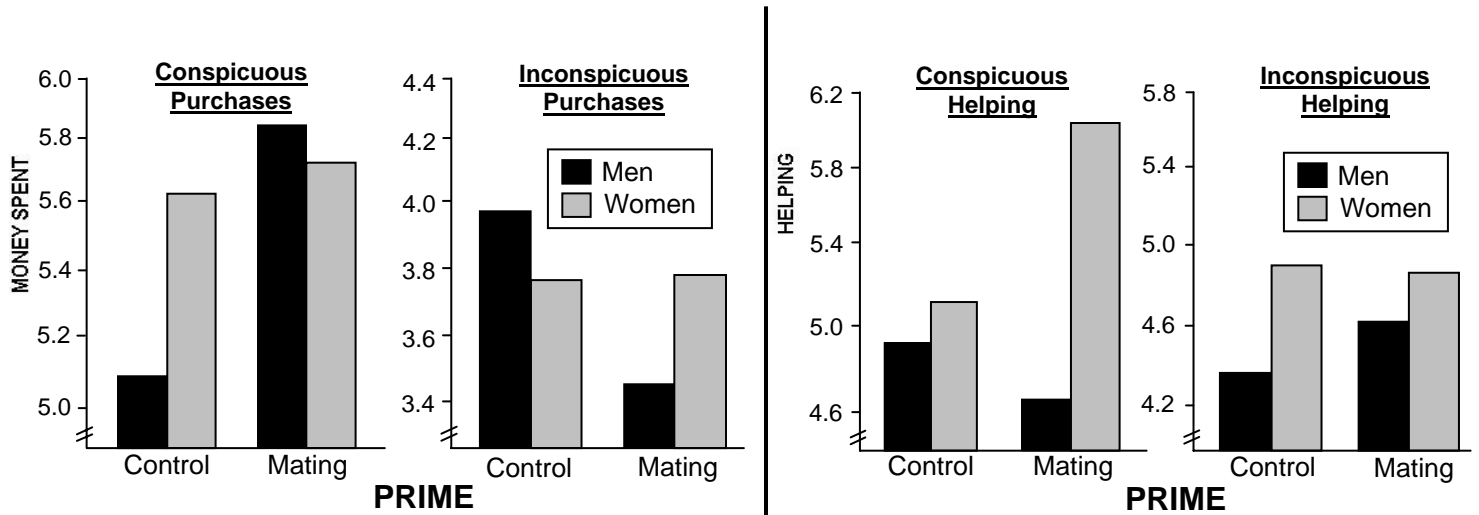
Zahavi, A., & Zahavi, A. (1997). *The handicap principle: A missing piece of Darwin's puzzle*. New York: Oxford University Press.

For further information contact: Vladas Griskevicius, Department of Psychology, Arizona State University, Tempe, AZ 85287-1104. Email: vladasg@asu.edu.

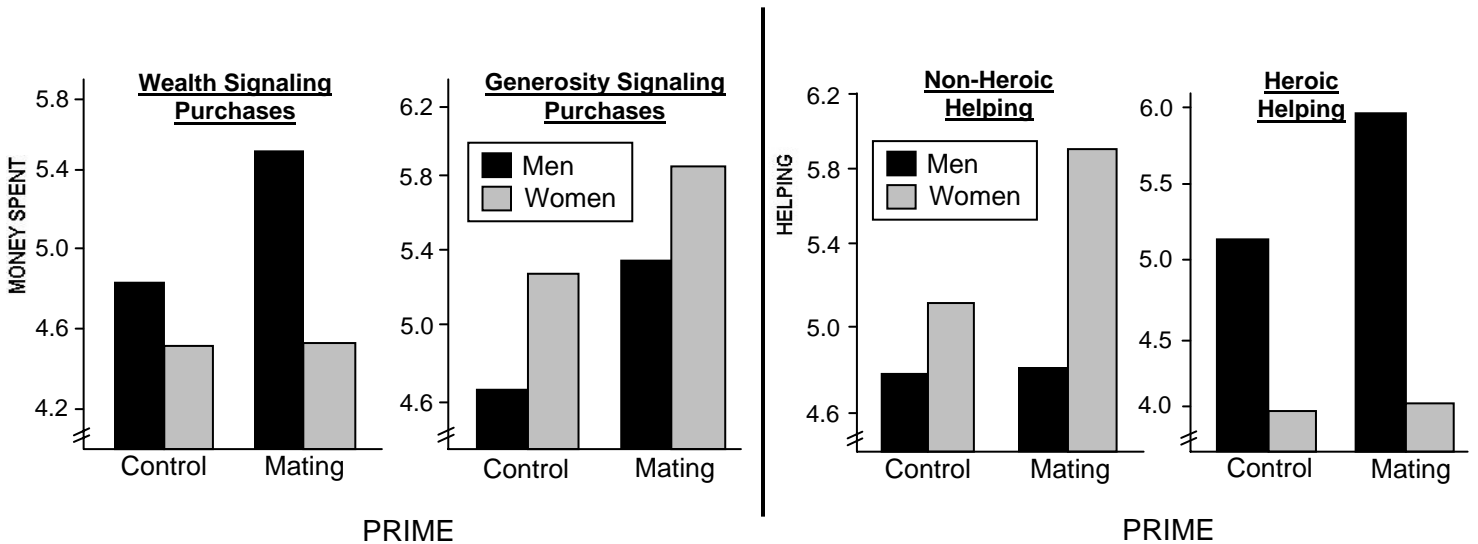
**FIGURE 1: SPENDING AND HELPING DEPENDING ON ROMANTIC PRIME (STUDY 1)**



**FIGURE 2: SPENDING AND HELPING DEPENDING ON CONSPICUOUSNESS (STUDY 2)**



**FIGURE 3: PHILANTHROPIC SPENDING AND HEROIC HELPING (STUDY 3)**



## The Effects Of Category Labels And Overall Similarity On Consumer Preferences For New Products

Maria Sääksjärvi, Hanken – Swedish School of Economics and Business Administration

Ewa Pulkkinen, Hanken – Swedish School of Economics and Business Administration

### ABSTRACT

Product name and design are two important attributes to be considered prior to product launch. Building on categorization research, we examine the joint effect of the name (category label) and design (overall similarity) on consumers' preferences toward new products.

Research has shown that product name and design carry differential effects in categorization and would need to be addressed individually. Following Yamauchi and Markman (1998), we refer to product name as its category label and to product design as overall similarity. Category label represents product's category membership and serves as a linguistic cue for guiding consumer perceptions about new products (Grice 1975). It is also a meaningful cue of a product's purpose and functionality (Moreau et al. 2001b). Overall similarity is the degree to which a product resembles existing products. It serves as a basis for classifying products into different categories (Rosch 1978). The differential effects evoked by overall similarity and the category label may lead to differing perceptions of the same product.

Research addressing joint effects of category labels and overall similarity has received mixed results regarding their relative influences. Further, the causal influence of similarity and labels on preference has not been examined. To examine these issues, we conducted two studies. As stimuli, we used ambiguous products that may be classified into multiple categories.

The first study was an eye-tracking experiment that examined the joint influence of category labels and overall similarity. As stimuli, we used new products to avoid lexicalized words and category meanings. The relative importance of overall similarity and category label was measured as the number of gaze plots each cue received (Pieters and Wedel 2004). The results show that consumers pay more attention to the picture than the label when examining the product ( $M=23.96$  [picture] vs  $M=4.00$  [label],  $t=5.537$ ,  $p<.000$ ). We further examined a match/mismatch condition, in which the overall similarity and the category label for products were either consistent (i.e., product and labels match) or crossed over (i.e., product and labels mismatch). The results show that the mismatch condition increases the importance of the category label. That is, in the

case of a mismatch between overall similarity and the category label, consumers paid more attention to the label than in the case of a match ( $M=3.08$  [match] vs.  $M=5.09$  [mismatch],  $t=2.20$ ,  $p<.05$ ).

To gain a more holistic understanding of the effects of overall similarity and the category label, we estimated a partial least squares model. The model featured the category label and overall similarity as independent variables and product attractiveness as the dependent variable, introducing innovation attributes as mediators. Following pertinent literature (Moreau et al. 2001; Rogers 1962, Tornatzky and Klein 1982), we utilized product net benefits and complexity as mediators. The results show that the importance of overall similarity exceeds that of the category label concerning all proposed mediators.

Study 2 built on the tentative results of study 1. The goal of this study was to validate the results obtained in study 1 using a wider set of products, a different population, a larger sample and an alternative methodology. In study 2, four products with eight variations were used. The sample consisted of 160 real consumers. To replicate the results of study 1, we needed to account for the effects that eye-tracking methodology is able to measure, but regular data collection techniques fall short of. The most important advantage of the eye-tracker is to capture both consumers' conscious and unconscious processing. The camera measures every movement that consumers make, even those that consumers themselves may not be aware of. In contrast, regular methods such a paper and pencil techniques are only able to capture consumers' conscious processing. Thereby, to be able to replicate the results of study 1, we needed a moderator that would be able to capture the same type of unconscious processing that study 1 was able to account for. To tap into the unconscious processing utilized in the eye-tracking procedure we chose product attachment as a moderator for study 2. It was deemed a suitable moderator, given that unconscious processing is emotionally-laden (Kahneman and Frederick 2002) and product attachment is an unconsciously triggered emotional bond between a person and a product (Thomson, MacInnis and Park 2005).

As in study 1, ambiguous products were used as stimuli. Four products were used. For two products,

we manipulated the category label (cellphone PDA vs. PDA cellphone) resulting in 2x2 combinations. For an additional product, both the category label and overall similarity were manipulated (cellphone camera, looks like a cellphone vs. looks like a camera). The study yielded 156 usable responses from 160 participants. The measurement remained as in study 1 with the addition of an adapted 5-item scale for product attachment (Hennig-Thurau et al. 2001).

As in study 1, we estimated a partial least squares model for examining the effects of overall similarity and the category label. The model replicated that of study 1, with the additional introduction of product attachment as a moderator between the proposed effects of overall similarity and the category label on the perceived innovation characteristics. Using attachment as a moderator, we were able to replicate the results of study 1. The results showed that the attachment x overall similarity effect is a significant predictor of innovation characteristics, both concerning product complexity  $\beta=.551$ ,  $t=1.89$ ,  $p<.05$  and net benefit  $\beta=.524$ ,  $t=1.68$ ,  $p<.05$ . In contrast, the

attachment x category label interaction approaches significance for product complexity  $\beta=.441$ ,  $t=1.31$ ,  $p<.10$  but is negligible concerning net benefits.

In summary, the results show that consumers pay more attention to overall similarity than to the category label when establishing preferences for new products. The effects of overall similarity and the category label were mediated by perceived innovation characteristics. In study 1, both the category label and overall similarity influenced complexity, but not net benefits. In study 2, overall similarity influenced the innovation characteristics, whereas the category label did not. Thus, we may conclude that the effect of overall similarity exceeds that of the category label in preferential assessments.

For further information contact: Maria Sääksjärvi; Department of Marketing; Hanken Swedish School of Economics and Business Administration; Arkadiankatu 22; P.O. Box 479, 00101 Helsinki; Finland.

## Delimiting The Influence Of Metacognition In Judgments

Session Chair: Manoj Thomas, Cornell University  
Discussion Leader: Geeta Menon, New York University

### The Role of Ease in Consumers' Emotional Judgments

Derek D. Rucker, Northwestern University  
Pablo Briñol, Universidad Autonoma de Madrid  
Richard E. Petty, Ohio State University

Perhaps one of the most fundamental and encompassing aspects of the human condition is emotion. Consumers rely upon their emotions, either intentionally or unintentionally, to shape their judgments. Thus, the emotional state of the consumer has been extensively studied. For example, earlier research focused on how consumers' emotions influenced persuasion through various mechanisms (e.g., Petty, Schumann, Richman, & Strathman, 1993). Petty and colleagues (1993) found that, when elaboration or thinking was low, placing consumers in a positive emotional state enhanced persuasion by serving as a simple cue; however, when elaboration was high, placing consumers in a positive mood facilitated persuasion by leading consumers to generate more positive thoughts. Given emotions play a profound role in the persuasion process (see also Petty, DeSteno, and Rucker, 2001), it becomes important to understand what factors determine when consumers rely on their emotions.

The present research submits a previously unexamined factor that can influence whether consumers rely on their emotions is the subjective ease accompanying emotion provoking events. Specifically, when it is easy to generate emotion provoking events, we hypothesize that people will be more likely to rely on their emotions, and the emotions will exert a greater influence on consumers' thoughts and judgments, than when it is difficult to generate or process emotion provoking events.

### Past Research

Recent research suggests consumers not only rely upon the content of their thoughts, but they also rely upon the metacognitive experience of ease accompanying the generation of their thoughts. To illustrate, Wänke, Bohner, and Jurkowitsch (1997) instructed participants to imagine either 1 or 10 reasons to drive a BMW. Although instructing participants to consider 10 reasons to favor driving a BMW provided more positive information about the BMW, participants held more positive attitudes when they had only thought of a single reason to drive a

BMW. Thus, this finding could not be explained by participants relying upon the content of their thoughts. Rather, this finding could be explained by the fact that imagining a single reason was presumably easier than imagining ten. There are two possible explanations for why easy thoughts are more impactful than difficult thoughts. One is that people infer that when it is easy, there are more thoughts available (Schwarz et al., 1991). The other is that easy signals confidence in thoughts whereas difficulty signals doubt (Tormala, Petty, & Briñol, 2002). In either case, thoughts associated with ease should have a greater impact than thoughts associated with difficulty.

### Current Research

Ease has been studied in a number of domains including, but not limited to, persuasion, risk assessment, likelihood estimates, attitude strength, and interpersonal closeness (for reviews see Rolf, Schwarz, & Winkielman, 2004; Schwarz, 2004). The present research examines whether subjective ease can influence consumers' reliance on their emotions. In Experiment 1, we induced emotions by instructing participants to list emotional events. All participants were asked to recall sad events in their life. However, participants were asked to generate either few (2) or many (10) sad events and then report how sad they currently felt. As expected, participants reported feeling sadder after listing 2 events (easy) as opposed to 10 (sad). In short, Experiment 1 supported the proposition that consumers' reliance on their emotions was significantly influenced by the subjective sense of ease accompanying the generation of the emotional events.

Experiment 2 examined whether consumers' reliance on their emotions was limited to manipulated ease, or whether the ease naturally accompanying the experience of emotion influences the reliance on one's emotions. Participants wrote about a time they were either happy or sad. We then assessed how easy or difficult they found the experience to be. Replicating the effects of manipulated ease in Experiment 1, participants self-reported ease revealed that ease led to a greater reliance on their emotion (sad or happy) when that experience was associated with ease as opposed to difficulty.

Experiment 3 replicated the findings of the previous experiments, and sought to establish the

effect of ease not only affected consumers' reliance on their emotions, but could have additional consequences on consumers' judgments. To enhance generalizability, Experiment 3 also used a different manipulation of ease. Specifically, participants wrote about 4 times they felt either sad or happy. However, to induce a feeling of ease or difficulty, participants wrote with either their dominant or non-dominant hands, respectively (see Briñol & Petty, 2003; Petrova & Cialdini, 2005). Finally, participants were asked to estimate the likelihood of positive events (e.g., finding a good job after college). Prior research has clearly documented that participants' emotional states can influence the perceived likelihood of similarly valenced events (e.g., DeSteno et al., 2000). As predicted, the results of Experiment 3 indicated that participants predicted events related to happiness were more likely to occur when they were happy but only when the emotion inducing task was easy compared to difficult. Emotions exerted a stronger influence on predictions of emotion-congruent events when the emotion inducing events were physically easier to write.

Taken together, these findings suggest the experienced ease in generating affective information can increase the reliance of that mental content in making subsequent judgments. That is, the easier it felt to generate thoughts about happy events (because few were requested), the greater participants' emotional reactions. In addition, the emotions affected both self-reported emotion and predictions of emotional consequences.

### Contributions and Conclusions

The present experiments demonstrate a new component in consumers' reliance on their emotions and provide a new role for subjective ease in consumer behavior. Across different paradigms in which the ease of generating emotional thoughts was manipulated, we find the impact of emotional thoughts on affective judgments is greater when people have an easy, as opposed to difficult, time generating those emotional experiences. These studies provide new insights into the interplay of affect and cognition in consumer thinking, and new perspectives on understanding how consumers come to know their emotions. Given the importance of emotion in consumers' judgments, attitudes, and behaviors, we believe the present research sets the stage for greater exploration of understanding how consumers arrive at their emotions.

For further information contact: Derek D. Rucker, Ph.D.; Assistant Professor; Kellogg School of Management; Northwestern University; 2001

Sheridan Rd; Evanston, IL 60208; Phone: 847-491-2714.

### The Ease of Computation Effect

Manoj Thomas; Cornell University  
Vicki Morwitz; New York University

Numerical judgments often entail mental computations. These mental computations are not always easy. One factor that affects the ease of mental computation is the complexity of the multi-digit numbers. Mental computations are easier when the problem entails simple single-digit computations (e.g., 5.00 – 4.00) instead of complex multi-digit computations (e.g., 4.99 – 3.98). Will this computational complexity in anyway affect our numerical judgments? In the context of the given example, will the difference between 4.99 and 3.98 be perceived to be smaller than, larger than, or the same as, that between 5.00 and 4.00? More generally, how does the subjective ease or difficulty of mental computations affect our numerical judgments?

Although ease of processing has been shown to affect judgments of the probability of an event occurring (Tversky and Kahneman 1973), fame (Jacoby et al. 1989), judgments of familiarity (Whittlesea 1993) the implication of these psychological phenomena for numerical comparisons is not clear. Results from most of the published experiments suggest that people rely on metacognitive heuristics only when cognitions are not diagnostic. This research started by investigating whether the subjective experience of ease of computation has any effect on judgments of numerical difference between two numbers. Our experiments unearthed an intriguing phenomenon: Sometimes computationally easier differences are perceived to be larger than computationally difficult differences, even when the arithmetic difference is not larger. With the aim of delineating the underlying psychological mechanisms, we then focused our attention on two research questions: (i) Why are computationally easier differences perceived to be larger? (ii) When do people rely on metacognitive heuristics to make numerical judgments?

In experiment 1, computational ease and numerical difference was manipulated in a within-subjects design. Participants were shown 24 pairs of prices; each pair comprised of a regular price and a sale price. Participants were asked to evaluate the magnitude of the discount on a small-large 11-point semantic differential scale by computing the difference between the regular price and the sale



price. The price stimuli differed from each other in the magnitude of the discount (small vs. large) as well as in the computational ease (difficult vs. easy). For some of the prices, the discounts were easy to compute (e.g., 5.00 - 4.00) while the rest had relatively complex computations (e.g., 4.99 - 3.98). Consistent with our hypothesis and contrary to the rules of arithmetic, participants in our experiments perceived the discount magnitude to be larger when the difference was easier to compute (e.g., 5.00 - 4.00; difference 1.00) than when it was difficult to compute (e.g., 4.99 - 3.98; difference 1.01). The ease of computation effect manifested across all levels of discounts as well as prices. Experiment 2 revealed this effect manifests only when there were variations in ease of computations. When the numerical difference was provided to the participants and they just had to judge whether the difference is small or large, processing fluency had no effect on judgments. To investigate the lay theory that underlies the ease of computation heuristic, in experiment 3, prior to the numerical judgment task we manipulated the association between computational ease and numerical difference by having them undertake a priming task. The ease of computation effect was mitigated in the condition where participants were primed with the belief that computationally complex numbers have larger differences than computationally simpler numbers. Finally, the ease of computation effect seems to be on account of non-conscious misattribution of the metacognitive experience. When the participants were explicitly warned that the computation is either easy or difficult, processing fluency had no effect on judgments (Experiment 4).

For further information contact: Manoj Thomas; Assistant Professor of Marketing; S C Johnson Graduate School of Management; Cornell University, 353 Sage Hall; Ithaca NY 14850; Phone: 607-255-7207.

### **Perceptual Fluency, Attitudes and Choice**

Seh-Woong Chung, Singapore Management University  
Andy Mitchell, University of Toronto

In a series of studies we examine the relationship between perceptual fluency, attitudes and their accessibility, and choice from a limited set of brands. We hypothesize that under these conditions, brand choice is a two-stage process. The first stage is a recognition stage where certain brands will “stand out” in the environment. The second stage is a choice stage, where consumers use information about

the brands, which is stored in memory to make a choice.

Previous research indicates that objects with highly accessible attitudes “stand out” in the environment (Roskos-Ewoldsen and Fazio 1992) and that perceptual fluency will also cause this to happen (Jacoby, Kelley and Dywan 1989). Consequently, attitude accessibility and perceptual fluency are expected to influence the first stage. Previous research also indicates that beliefs, attitudes and their accessibility will influence the second stage (e.g., Fazio and Towles-Schwen 1999). These conjectures are tested in a series of experiments. In all the experiments, the participants are provided with information about four hypothetical brands of personal music players that vary on five attributes so that there is a clear rank order of the brands on the attributes. One brand is evaluated as very positive, the second as slightly positive, the third slightly negative and the fourth very negative. Both the attribute information and the attitudes provide the same rank order. During the experiment, the participants form an attitude toward each brand.

In the first experiment, the perceptual fluency, attitude accessibility of the second best personal music player are manipulated and the participants are asked to select which brand they would purchase if they all had the same price under either high or low motivation and opportunity conditions. Under high motivation and opportunity conditions the participants are given as much time as they want to make a decision and are told that if they select the best brand they are eligible to enter a drawing to win \$25. Under low motivation and opportunity conditions the participants were told to make a decision as quickly as possible. Under high motivation and opportunity conditions only attitude accessibility had an influence on choice while under low motivation and opportunity conditions, both attitude accessibility and perceptual fluency were found to have independent influences on choice. The response times of the choice process were not measured in this experiment, so it is possible that the low motivation and opportunity condition included both the recognition stage and part of the choice stage in the choice process. In other words, the choice of the brand with the highly accessible attitude may be due to effects at both the recognition and choice stage.

To examine this possibility we conducted a second experiment, which is similar to the first, only the perceptual fluency and attitude accessibility of the third best brand, which has a negative attitude, are

manipulated. In addition, the response times in the choice task were measured. As expected, neither attitude accessibility nor perceptual fluency affected choice under high motivation and opportunity conditions. However, under low motivation and opportunity conditions, perceptual fluency has a significant effect on choice while attitude accessibility has a marginally significant effect. A closer examination of the data indicates that with a median split on the response times used when reaching a decision, all the participants who selected the third best brand, which had a negative attitude made the decision quickly. In fact, all the participants who choose the third best brand did so within 1.1 seconds.

In a third experiment, we replicated the low motivation and opportunity conditions of the first experiment, however, we forced the participants to make a choice within 1.1 seconds. The results indicate a significant interaction between the effects of perceptual fluency and attitude accessibility on choice. Both high perceptual fluency and high

attitude accessibility had significant effects on choice. However, these effects were not additive. In summary, the results of our experiments indicate that the recognition stage lasts for approximately 1.1 secs and perceptual fluency and attitude accessibility affect this stage. If choices are based on this stage, perceptual fluency and attitude accessibility will affect choice regardless of the valence of the attitude. Attitudes, attitude accessibility and attribute information will influence the second stage. In our studies attitudes and attribute information provided the same rank order information of the brands, so only attitude accessibility had an effect on choice when the attitude was positive. These results indicate that even when attitudes are formed toward the alternatives, they do not influence choice when it is based on metacognitive processes.

For further information contact: Andrew A. Mitchell, Professor of Marketing, Joseph L. Rotman School of Management, University of Toronto, 105 St. George Street, Toronto, Ontario, Canada M5S 3E6

## Eating With A Purpose: Consumer Response To Functional Food Health Claims

Courtney M. Droms, University of South Carolina  
Rebecca Walker Naylor, University of South Carolina  
Kelly L. Haws, University of South Carolina

### ABSTRACT

Marketers of food products have recently introduced a variety of "functional foods," foods which promise consumers improvements in targeted physiological functions such as lowered cholesterol, improved digestive function, etc. (Urala and Lähteenmäki, 2004). Functional foods are defined as foods that are similar in appearance to conventional foods, but in which the concentrations of one or more ingredient may have been manipulated or modified to enhance their contribution to a healthy diet (American Dietetic Association, 2004). For example, Dannon recently extended their yogurt line to include Dannon Activia yogurt, which contains *bifidus regularis*, a probiotic that can help regulate the digestive system by reducing long intestinal transit time. However, despite the proliferation of functional food claims in the marketplace, very little research has focused on some of the key issues in understanding consumer responses to functional foods: (1) do consumers believe the health claims made about functional foods, and (2) what determines whether consumers choose functional food options over other, nonfunctional options?

To address these issues, we explore two key questions across two studies. First, what factors influence the believability of functional food health claims? Second, what factors influence the consumer's choice of a food with a functional health claim over a food without a functional health claim? In this research, we introduce five factors – consumer familiarity with the ingredient about which the functional food health claim is made, familiarity with the brand making the claim, consumer health and nutrition knowledge, consumer health consciousness, and the presence of conflicting versus complementary information about a functional food health claim – that are influential in the consumer's perceptions of the believability of the claim, as well as in the consumer's choice of a functional food product over a nonfunctional one.

In Study 1, we were primarily interested in testing the impact of brand and ingredient familiarity in determining consumers' reactions to functional food health claims. Participants were asked to read a description of a new rye bread offering, either from Mrs. Baird's or The Kneadery, which contained either whole grains or lignans. We pretested 18

brands by asking 80 participants at a large southwestern university to rate how familiar they were with each brand on a one ("not at all familiar") to nine ("very familiar" scale). We selected the top rated brand, Mrs. Baird's, as the familiar brand to use in our stimuli ( $M = 8.39$ ). A fictitious brand, The Kneadery, was created to serve as the unfamiliar brand. We pretested 28 functional food components obtained from a list provided by the International Food Information Council's website ([www.ific.org](http://www.ific.org)). Based on the pretest, whole grains were selected as an ingredient with functional benefits with which participants were relatively familiar ( $M = 6.23$  on a scale of nine), and lignans were selected as an ingredient with which participants were relatively unfamiliar ( $M = 3.50$ ),  $t(1, 81) = 10.82$ ,  $p < .0001$ . Thus, the study had a 2 (brand: familiar vs. unfamiliar) x 2 (ingredient: familiar vs. unfamiliar) design. After reading the product description, participants rated their belief in the health claim and how much they felt the ingredient about which the claim was made would actually benefit them. Finally, participants completed the Health Knowledge (Moorman, 1990) and Health Consciousness Scales (Gould, 1988).

Our results suggest that the ways in which consumers interpret functional food health claims are determined by individual characteristics. Consumers with either the ability (i.e., the knowledge) or the motivation (i.e., health consciousness) to engage in extensive processing about the functional food health claim are not susceptible to the peripheral cues of brand and ingredient familiarity. These consumers are presumably evaluating the claims using more diagnostic information. Consumers who lack the motivation or ability to engage in careful processing (which Hoyer's (1984) research suggests is the norm for most repeat purchases and Wansink and Huckabee (2005) suggest is the norm for food choices), however, rely on peripheral cues to make judgments, such that claims about familiar ingredients are thought to be more believable (and the ingredient to offer more benefit) when the claim is made by a familiar brand. Claims about unfamiliar ingredients are thought to be more believable and beneficial when they are made by an unfamiliar brand.

In Study 2, we focused on examining the effects of conflicting health information on consumers' food choices. To do so, we simulated two media environments, one in which two published reports about a functional food health claim complemented each other and one in which two articles from different sources contradicted each other's claims. After reading both articles, participants were asked to choose one of two new granola bars. The primary difference between the two bars was that the Fuel Bar was described as being functional (i.e. containing lignans, the ingredient discussed in the two articles and described in the choice task as "fuel to boost your immune system"), and the Go Bar was described as being tasty (i.e. "Great taste on the go!"). Both the granola bar brands are fictional and created by the authors.

Our results confirm our prediction that less health conscious consumers are more likely to adjust their consumption decisions in the face of conflicting information than are more health conscious consumers. Conflicting information greatly reduced the likelihood of choosing the Fuel bar (the functional food) for low health conscious consumers. However, for more health conscious consumers, reading conflicting information did not reduce the likelihood of choosing the Fuel bar. Less health conscious consumers seem to use a heuristic that if any conflicting information exists, a health claim is less valid and as a result, there is some evidence that they fall back on the tastiness dimension of the food in order to make a choice. More health conscious consumers may be less susceptible to the influence of conflicting information either because of a confirmatory bias to believe positive health claims or because they are motivated to process all health claim information more critically.

In sum, the results of two studies suggest that motivated and health knowledgeable individuals are persuaded by different cues than are less motivated and less knowledgeable consumers (who are more likely to be the mass market). In conditions where conflicting information about the health benefits of an ingredient exist (which occurs frequently in the media), these low health conscious consumers may

be simply ignoring the health claim and relying on their perceptions of taste to decide which option to choose. In future studies we plan to experimentally manipulate levels of consumer health knowledge about a functional food claim in order to provide managers with recommendations about the type and amount of information they should convey to consumers about functional food products, depending on whether they are producing a product that makes a familiar claim and whether their brand is familiar to consumers.

For Further Information Contact: Courtney Droms, Moore School of Business, University of South Carolina, 1705 College Street, Columbia, SC 29210, Courtney\_Droms@moore.sc.edu, (803) 777-6074 (tel), 803-777-6876 (fax).

## REFERENCES

- American Dietetic Association (2004). Position of the American Dietetic Association: Functional foods. *Journal of the American Dietetic Association*, 104, 814-826.
- Diplock, A. T., P. J. Aggett, M. Ashwell, F. Bornet, E. B. Fern, and M. B. Roberfroid (1999). Scientific Concepts of Functional Foods in Europe: Consensus Document. *British Journal of Nutrition*, 81 (Supplement 1).
- Gould, S. J. (1988). Consumer attitudes toward health and health care: A differential perspective. *Journal of Consumer Affairs*, 22, 96-118.
- Hoyer, W. D. (1984). An Examination of Consumer Decision Making for a Common Repeat Purchase Product. *Journal of Consumer Research*, 11, 822-829.
- Moorman, C. (1990). The effects of stimulus and consumer characteristics on the utilization of nutrition information. *Journal of Consumer Research*, 17, 362-375.
- Urala, N. and L. Lähteenmäki (2004). Attitudes Behind Consumers' Willingness to Use Functional Foods. *Food Quality and Preference*, 15, 793-803.
- Wansink, B. and M. Huckabee (2005). De-Marketing Obesity. *California Management Review*, 17 (1), 6-18.

## Smoking Related Cognitions, Activist Inclinations, Motivations, And The Impact Of Gender And Group-Membership On Anti-Smoking Beliefs And Activism

Namita Bhatnagar, University of Manitoba  
Sridhar Samu, Indian School of Business

### ABSTRACT

Recently published statistics from the Canadian Tobacco Use Monitoring Survey (CTUMS – 1999-2004) contain positive as well as negative news for anti-smoking advocates. Fewer Canadians are smoking (20% in 2004 compared to 25% in 1999), yet the practice remains widespread across the 20-24 (28%) and the 24-44 age groups (25%). Despite substantial efforts, not enough is known about the processes that underlie smoking prevention, reduction, and cessation. This paper draws on literature from the fields of marketing, sociology and psychology to understand the formation of active publics and the activist process within the domain of tobacco consumption.

Historically, grassroots activism has been critical in bringing about social and political change – e.g., in the American civil rights movement (McAdam and Paulsen 1993); and state-specific formulation and implementation of gun-control and tobacco-control laws in the US (Jacobson and Wasserman 1999; Nathanson 1999). In practice, several public service campaigns encourage friends and family members to hold dialogues with at-risk individuals (e.g., Manitoba Cancer Society). Anecdotal evidence, preliminary focus groups and qualitative data also suggest that the inclination toward anti-smoking activism is widespread. Yet, academic literature dealing with the impact of micro-level consumer activism (for instance, persuasion by family, peers, or others with the intent of attaining desired goals) within the context of risky behaviors is scarce. Whether such activism enhances the anti-smoking agenda (by reinforcing anti-smoking messages) or hinders it (by creating reactance amongst smokers) warrants closer scrutiny.

It is true that group effects have been of enduring interest in research on initiation and continuation of negative behaviors - especially in terms of conformity to peer pressure (e.g., Santor, Messervey and Kusumakar 1999, Aloise-Young, Graham, and Hansen 1994). This is not the case for psychological processes that underlie peer group effects on reduction and cessation of these behaviors. The role of activism, where consumers act as anti-tobacco advocates, takes on added relevance given recent bans within North America on smoking in public spaces (e.g., offices, restaurants, and bars). A

resultant sociological phenomenon is that of smokers congregating in open areas to smoke—thus making them conspicuous and easy targets for anti-smoking activists. Qualitative and quantitative methods are used to examine this phenomenon in an experimental study. Qualitative data is collected to understand smoking related cognitions, anti-smoking activist inclinations and motivations. Variations on the basis of group-membership of smokers (in-group versus out-group) and gender of activists are also examined quantitatively. This research has important theoretical and practical implications. From a theoretical standpoint, the role of consumers as activists on behalf in-group and out-group members has not been addressed previously. Variations in advocacy as a function of gender and venturesomeness are also examined. Further, anecdotal evidence, preliminary focus groups and qualitative data suggest that anti-smoking activism is widespread. Whether such activism enhances the anti-smoking agenda (by reinforcing anti-smoking messages) or hinders it (by creating reactance) warrants closer scrutiny.

Qualitative results suggest that the two segments of smokers and non-smokers perceive the act of smoking very differently. While non-smokers recognize the dangers of smoking, smokers continue to support other smokers. Hence, the direct effect of anti-smoking messages, while being effective for non-smokers, may need to be augmented to be effective for the smokers. This is where activism by non-smokers could potentially play a role, if it can overcome the social norms, which prevent the “silent majority” from discussing the dangers of smoking with the smokers. The presence of the “vocal minority” is encouraging, but they may create reactance from the smokers if they are too direct or vocal. It is critical to identify and convert the silent majority to activists by empowering them and making it personally relevant for them by highlighting the caring aspect of such intervention.

Interesting practical implications arise from the quantitative results. First, significant gender differences in open-ness to anti-smoking messages are found. Women appear to worry about and be more open to information about harmful effects when they see smokers – regardless of whether they are in-group or out-group member. Men on the other hand seem to be more troubled by friends smoking –they

show greater susceptibility to anti-smoking messages when the situation becomes relevant to them. It is possible that these gender-based variations are a manifestation of the traditional role of nurturers and caretakers assigned to women. Highly venturesome people are also less likely to have a problem if people smoke. Results indicate that gender, group-membership and venturesomeness should be considered while designing and implementing public service campaigns. From a practitioner perspective, long-standing public service campaigns aimed at educating people about the ills of smoking could have two effects. People, especially non-smokers, may be the ones most influenced by these anti-smoking messages, causing them to stigmatize and possess negative affect toward smokers. Smokers that perceive such grassroots activism as a personal attack may react adversely to such interventions. On the other hand, if done right, activists could successfully reinforce anti-smoking messages that are disseminated by mass media at a micro-level.

Several limitations and avenues for future research are identified. First, dependent variables were assessed using direct self-report measures. More indirect measures need to be considered in future

research. Second, several single item measures were used. Multi-item scales are being developed for use in further studies. Third, the sample used here consisted primarily of non-smokers. A better understanding of the impact of smoking status, as well as reactions to anti-smoking activism, can be obtained by recruiting more smokers. Identifying the attributions that smokers make about activists' motivations and their impact on the efficacy of such activism is also critical. For example, the likelihood of an anti-smoking intervention being well received would be very different for attributions such as – “this person truly cares about my health”— as opposed to— “this person is seeking an easy target for his/her own ill-disposition”. While this research makes a beginning toward identifying the existence of anti-smoking activism and the various forms it can take, much more needs to be done to understand the effectiveness and management of this word of mouth effect.

For further information contact: Namita Bhatnagar, Assistant Professor of Marketing, Asper School of Business, University of Manitoba, 181 Freedman Crescent, Winnipeg, MB R3T 5V4, Canada.

## Factors Influencing Healthy Eating Habits among College Students: Application of Health Belief Model

Sameer Deshpande, University of Lethbridge, Canada  
Michael Basil, University of Lethbridge, Canada  
Debra Basil, University of Lethbridge, Canada

### ABSTRACT

How do people make food choices? One theoretical approach can be adapted from the Health Belief Model (HBM; Rosenstock, 1974). The HBM predicts that people's behavior is rational. As a result, individual will modify their behaviors when they perceive a threat from a disease (measured by susceptibility to the disease and the severity of disease) and when perceived benefits of changing their behavior exceed the barriers.

There are many life-cycle transitions where behavior is mutable. One of those is the transition to college, when students are able to make a variety of independent decision, including what to eat. The transition often worsens dietary habits among students (Grace, 1997) which could contribute to weight problems especially during the first year of college or university (Anderson et al., 2003) and during later years of life (Centers for Disease Control, 1997). For example, research has shown that college students tend to eat fewer fruits and vegetables and report high intake of high-fat, high-calorie foods (American College Health Association, 2006). Demographic and psychographic characteristics are linked with dietary behavior of college students. Students living on campus (Driskell et al., 2005) and female students (Racette et al., 2005) tend to eat less healthy foods. In terms of motives, students report healthy eating to be helpful in providing a healthy appearance, providing positive feelings, and preventing disease (House et al., 2006). These findings are consistent with studies conducted among general adults (e.g., Furst et al., 1996). Horacek & Betts (1998) found that taste, time sufficiency, convenience, and budget influenced students' eating habits in that order. These seem to act more as barriers to healthy eating (see House et al. 2006) study. One could assume that these barriers may be more influential than benefits given the prevalence of poor eating habits among college students.

Research that compares the effectiveness of these predictors in a single model such as the health belief model (HBM) is lacking. Previous studies that have applied HBM in predicting healthy eating among college students were less useful due to differences in the nature of the sample or the dependent variables.

Similarly, HBM reported in predicting healthy eating among general adults (e.g., Sapp & Jensen, 1998), especially nutrition behaviors (see Chew, Palmer, & Kim, 1998) may not be generalizable to the college student population given the differences between college students and the general adult population in terms of lifestyle, income, social environment, and available food choices. The current study extends the HBM's applicability by predicting nutrition behavior among college students.

In the present study, HBM has been extended in accordance with Sapp and Jensen (1998) to include additional variables relevant to the eating behaviors of adults. These variables include perception of current dietary quality, awareness of a diet-health relationship, perceived importance of eating a quality diet, and environmental variables (measured with four individual items: price/ taste/ ease of preparation/ convenience). Finally, self-efficacy has been added to the model since it has played an important role in predicting healthy eating (Garcia & Mann, 2003; Von Ah et al., 2004).

The central objective of this study was to test the predictive ability of the HBM on the likelihood of eating healthy in the next two-week period among college students.

Healthy eating was defined as "eating a diet that is low in bad fat, sodium, bad cholesterol and sugar and, high in fiber, fresh fruits and vegetables."

The study was conducted among 194 Canadian university undergraduate students. The gender distribution was 45% female (n=88) and 55% male. Students were predominantly in the 18-25 year old range, predominantly Caucasian (75%) and predominantly earning less than \$24,000. The average body mass index was 23 (for reference, a BMI of 25 or more indicates an overweight person). This research was part of a larger study containing an experiment that manipulated participants' hypothetical health conditions and asked them to make food product choices. The effects of the experimental manipulations were controlled while calculating the effect of HBM variables for the present analysis to assure that they did not impact the results. To test for common method bias, we

conducted Harman's (1976) single-factor test (EFA) and calculated the average inter-factor correlation among independent variables. Results revealed that such a bias was not evident.

Pearson correlation analysis and hierarchical regression analysis were conducted to assess the extended model. The effects of the experimental manipulations were controlled as mentioned above in order to get a better understanding of the effects of the modified HBM variables. The total variance explained by the model was nearly 70%. Perception of adequacy of current quality diet and awareness of a diet-health link contributed the most to the variance of the model. Gender also had a significant impact on healthy eating. The individual's perceived importance of healthy eating also significantly contributed towards the variance of the model. Similarly, ease of preparation and convenience features were significant, as was perceived benefits from healthy eating, self-efficacy and cues to action. Finally perceived severity of getting a disease from unhealthy eating was significant.

The results suggest that the HBM has utility in explaining college students' eating habits. The findings also have practical implications for social marketers. Emphasizing the benefits of healthy eating rather than barriers, increasing the efficacy of healthy eating, and heightening the importance of healthy food would be useful in promoting healthy eating behaviors in social marketing campaigns on college campuses. The main limitation of this study is that the experimental manipulation may have influenced students' perceptions and heightened the importance of eating healthy. However, the beta-value of the experimental manipulation was only marginally significant, reducing the concern of this extraneous variable.

#### REFERENCES

- American College Health Association, The. (2006). American College Health Association-National College Health Assessment (ACHA-NCHA) Spring 2004 Reference Group Data Report (Abridged). *Journal of American College Health*, 54(4), 201-211.
- Anderson, D. A., Shapiro, J. R., & Lundgren, J. D. (2003). The freshman year of college as a critical period for weight gain: An initial evaluation. *Eating Behaviors*, 4, 363-367.
- Centers for Disease Control. (1997). Youth risk behavior surveillance: National college health risk behavior survey – United States. *Mortality and Morbidity Weekly Report*, 46(SS-6), 1-54.
- Chew, F., Palmer, S., & Kim, S. (1998). Testing the influence of the health belief model and a television program on nutrition behavior. *Health Communication*, 10(3), 227-245.
- Driskell, J. A., Kim, Y.-N., & Goebel, K. J. (2005). Few differences found in the typical eating and physical activity habits of lower-level and upper-level university students. *Journal of the American Dietetic Association*, 105(5), 798-801.
- Furst, T., Connors, M., Bisogni, C. A., Sobal, J. & Falk, L. W. (1996). Food Choice: A Conceptual Model of the Process. *Appetite*, 26, 247-266.
- Garcia, K., & Mann, T. (2003). From 'I wish' to 'I will': Social-cognitive predictors of behavioral intentions. *Journal of Health Psychology*, 8(3), 347-360.
- Grace, T. W. (1997). Health problems of college students. *Journal of American College Health*, 45, 243-250.
- Harman, H. H. (1976). *Modern Factor Analysis*. Chicago, IL: University of Chicago Press.
- Horacek, T. M., & Betts, N. M. (1998). Students cluster into 4 groups according to the factors influencing their dietary intake. *Journal of the American Dietetic Association*, 98(12), 1464-1467.
- House, J., Su, J., & Levy-Milne, R. (2006). Definitions of healthy eating among university students. *Canadian Journal of Dietetic Practice and Research*, 67(1), 14-18.
- Racette, S. B., Deusinger, S. S., Strube, M. J., Highstein, G. R., & Deusinger, R. H. (2005). Weight changes, exercise, and dietary patterns during freshman and sophomore years of college. *Journal of American College Health*, 53(6), 245-251.
- Rosenstock, I. M. (1974). Historical origins of the health belief model. *Health Education Monographs*, 2, 328-335.
- Sapp, S. G., & Jensen, H. H. (1998). An evaluation of the health belief model for predicting perceived and actual dietary quality. *Journal of Applied Social Psychology*, 28(3), 235-248.
- Von Ah, D., Ebert, S., Ngamvitroj, A., Park, N., & Kang, D.-H. (2004). Predictors of health behaviours in college students. *Journal of Advanced Nursing*, 48(5), 463-474.



### The Psychology of Bonding with Brands: Who, What, and Why

Session Chair: S. Ratti Ratneshwar, University of Missouri-Columbia

Session Discussant: Peter Dacin, Queens University

#### The Safety Of Objects: An Examination Of Materialism And Self-Brand Connections

Aric Rindfleisch, University of Wisconsin-Madison  
James E. Burroughs, University of Virginia  
Nancy Wong, Georgia Institute of Technology

Consumers across many parts of the globe place considerable value on the acquisition of material objects. Over the past two decades, researchers have sought to establish how materialism is formed and how this value influences individual and collective well-being (see Burroughs and Rindfleisch 2002 for a review). Although these studies have made substantial contributions to our understanding of materialism, they shed little light on this value's influence on brand consumption. Our research seeks to address this gap by examining the relationship between materialism and brand connections. Drawing insights from research on material values, cognitive needs, and branding, we suggest that individuals with high levels of materialism will exhibit strong ties to the brands they consume as a means of coping with uncertainty.

We assessed the relationship between materialism and brand connections by employing two survey studies. The first study was a nationwide mail survey in the United States ( $n = 363$ ), while the second study was a mall intercept survey in Singapore ( $n = 300$ ). The response rate for these two studies was 20% and 26%, respectively, and the demographic profile for both surveys closely mirrored the general population for both nations. Two product categories were the focus of each study. In the US, respondents were asked to record the make of automobile they currently own as well as the brand of jeans they last purchased for themselves. In Singapore, respondents were asked to record the brand of cell phone they currently own, as well as the brand of wristwatch that they last purchased for themselves. Our brand connection measures were assessed in relation to these brands.

We assessed three different manifestations of brand connections, *brand loyalty* (Chadhuri and Holbrook 2001), *self-brand connection* (Escalas and Bettman 2003), and *brand community* (Keller 2003). We assessed materialism using the updated (Richins 2004) 15-item Material Values Scale (MVS). Our conceptual framework argues that materialism is

positively related to brand connections because materialists have a high need for certainty and they look to brands to fulfill this need. To assess the influence of this cognitive need, our Singapore survey included two specific measures from the need for cognitive closure (NFCC) scale (Webster and Kruglanski 1994). Conceptually, NFCC is defined as, "the desire for a definite answer on some topic...as opposed to confusion and ambiguity" (Kruglanski 1989, p. 14). Specifically, we focused on *need for order* and *need for predictability* as our key dimensions. All measures displayed good psychometric properties.

We tested the relationship between material values and brand connection through a series of multiple regression analyses using our three brand connection measures (i.e., loyalty, connection, and community) as dependent variables and material values as the key predictor variable. In order to control for the effects of socially desirable responding (SDR), alternative brand-based influences and demographic factors, we also included measures of SDR, product satisfaction, age, gender, income, and education as control variables. These regressions revealed that materialism exerts a negligible influence on brand loyalty for all four product categories: automobiles ( $\beta = -.01$ , ns), jeans ( $\beta = .04$ , ns), watches ( $\beta = .07$ , ns), cell phones ( $\beta = .06$ , ns). In contrast, materialism has a significant effect on both self-brand connection (SBC) and brand community (BC), for automobiles (SBC:  $\beta = .19$ ,  $p < .01$ ; BC:  $\beta = .26$ ,  $p < .01$ ), jeans (SBC:  $\beta = .22$ ,  $p < .01$ ; BC:  $\beta = .23$ ,  $p < .01$ ), watches (SBC:  $\beta = .18$ ,  $p < .01$ ; BC:  $\beta = .20$ ,  $p < .01$ ), and cell phones (SBC:  $\beta = .23$ ,  $p < .01$ ; BC:  $\beta = .21$ ,  $p < .01$ ). In sum, materialism exhibits a positive influence on two out of the three measures of brand connections for all four product categories, providing general support for our claim that materialists attempt to manage uncertainty by establishing strong individual and communal relationships with their brands.

In order to probe more deeply into the nature of the relationship between materialism and brand connections, we investigated the cognitive motives that may underlie this relationship, namely the need for order (NFO) and the need for predictability (NFP). Because our tests of the effect of materialism

on brand connections indicate that materialism has no influence on brand loyalty, this additional analysis focuses on materialism's potential role as a mediator between NFO and/or NFP upon self-brand connection and brand community. In order to assess this potential influence, we conducted a series of mediated regression analyses. These analyses indicate that among our two indicators of the need for certainty, only NFP is significantly related to materialism ( $\beta = .38, p < .01$ ). Thus, materialism's role as a potential mediator of the link between need for certainty and brand connections appears to be related to its ability to provide a sense of predictability rather than a sense of order. In addition, these analyses show that materialism fully mediates the effect of NFP on both self-brand connections and brand community for both watches (SBC:  $\beta = .09$ , ns, BC:  $\beta = .07$ , ns) and cell phones (SBC:  $\beta = .11$ , ns, BC:  $\beta = .06$ , ns), as the inclusion of this variable reduces the effect of NFP on these outcomes to nonsignificance.

In order to give shape to the ephemeral constructs upon which we ply our trade, academic researchers often employ cognitive archetypes (Lakoff and Johnson 1987). Thus far, the dominant archetype among materialism researchers is an image of materialists as selfish status seekers. For example, Belk's (1985) seminal article portrays materialists as greedy, envious, and possessive. This image appears to hold a considerable degree of verisimilitude, as materialism has been shown to be negatively related to concerns for family, community, and religion (Burroughs and Rindfleisch 2002). However, our research suggests that this archetype may not fully capture why materialists form strong connections to their brands. Thus, in order to understand the relationship between materialists and branded objects, there appears to be a need for a new archetype. Based on our findings, one potential perspective would be to cast materialists (at least in terms of their brand relationships) as communal meaning seekers rather than selfish status seekers. This image appears to be quite congruent with prior findings that materialism is a means to manage uncertainty (Kasser 2002), and may also stimulate new insights regarding how and why materialists engage in consumption.

For further information contact: Aric Rindfleisch; School of Business; University of Wisconsin-Madison; 975 University Avenue; Madison, WI 53706.

## REFERENCES

- Belk, Russell W. (1985), "Materialism: Traits Aspects of Living in the Material World," *Journal of Consumer Research*, 12 (December), 265-80.
- Burroughs, James E. and Aric Rindfleisch (2002), "Materialism and Well-Being: A Conflicting Values Perspective," *Journal of Consumer Research*, 29 (December), 348-70.
- Chaudhuri, Arjun and Morris B. Holbrook (2001), "The Chain of Effects from Brand Affect to Brand Performance: The Role of Brand Loyalty," *Journal of Marketing*, 65 (April), 81-93.
- Escalas, Jennifer Edson and James R. Bettman (2003), "You Are What They Eat: The Influence of Reference Groups on Consumers' Connections to Brands," *Journal of Consumer Psychology*, 13 (3), 339-48.
- Kasser, Tim (2002), *The High Price of Materialism*, Cambridge, MA: MIT Press.
- Keller, Kevin Lane (2003), *Building, Measuring, and Managing Brand Equity*, 2nd ed. Upper Saddle River, NJ: Prentice Hall.
- Kruglanski, Arie W. (1989), *Lay Epistemics and Human Knowledge: Cognitive and Motivational Bases*, New York: Plenum.
- Lakoff, George and Mark Johnson (1987), *Women, Fire, and Dangerous Things*, Chicago: University of Chicago Press.
- Richins, Marsha L. (2004), "The Material Values Scale: Measurement Properties and Development of a Short Form," *Journal of Consumer Research*, 31 (June), 209-19.
- Webster, Donna M. and Arie W. Kruglanski (1994), "Individual Differences in Need for Cognitive Closure," *Journal of Personality and Social Psychology*, 67 (6), 1049-62.

## Strengthening Consumer-Brand Relationships Through Social Initiatives

Shuili Du, Boston University  
C.B. Bhattacharya, Boston University  
Sankar Sen, Baruch College

This research examines the relationship-strengthening capability of corporate social initiatives. From a field study involving a community outreach program undertaken by Crest (P&G), we find that, compared to those who are unaware of the initiative, consumers who have participated in or are aware of the initiative identify with the brand to a larger extent, display greater brand trust and brand loyalty. Overall, this research shows that corporate social initiatives can serve as innovative relationship marketing strategy mechanisms that build brand trust and strengthen consumer-brand relationships.

We define trust as the perceived credibility and benevolence of a company/brand (cf. Doney and Cannon 1997; Ganesan 1994). Literature on interpersonal trust (e.g., Lewicki & Bunker 1995; McAllister 1995; Rempel, Holmes & Zanna 1985) suggests behaviors recognized as personally chosen rather than role-prescribed, serving to meet legitimate needs, and demonstrating interpersonal care and concern may be critical for the development of trust. Corporate social initiatives are voluntary activities undertaken by a company/brand to support social causes and to improve community welfare (Kotler & Lee 2005). When consumers perceive intrinsic motives (i.e., a genuine concern for the societal welfare) in the social initiative a brand is engaged in, they develop greater trust in the brand (Ellen, Webb, and Mohr 2006). Consumers might also perceive extrinsic motives (i.e., to increase sales or profit) in the social initiative. Although prior literature suggests a negative relationship between extrinsic attributions and trust, we expect that, in the presence of intrinsic attributions, consumers might accept, and hence not react negatively to, the profit motive in the social initiative. Furthermore, we expect perceived efficacy of initiative to be a key antecedent of intrinsic attributions and therefore brand trust. By making a difference to the social cause (i.e., efficacy of the initiative), a brand can build consumer trust as it signals that the brand is serious about bettering social welfare (i.e., the benevolence dimension of trust) and is competent in effecting positive social change (i.e., the credibility dimension of trust). Brand trust in turn would lead to brand loyalty and brand advocacy (e.g., word-of-mouth, resilience to negative information) (Garbarino & Johnson 1999; Morgan and Hunt 1994; Sirdeshmukh, Singh & Sabol 2002).

We tested our hypotheses in a field study involving a real-world social initiative, Crest Healthy Smiles 2010. Through this initiative, Crest partnered with Boys and Girls Club of America to provide dental health education, dental care tools and access to under-privileged children and their families. The beneficiary group (i.e., experimental group) consists of families who have participated in, and therefore have benefited from the program, and the general population group (i.e., control group) consists of families from the same neighborhoods, who have similar demographic characteristics but have not participated in the program. Results from the study are supportive of our hypotheses. Specifically, relative to the general population, the beneficiaries identify with the sponsoring brand Crest to a greater extent, display greater brand trust, and show greater likelihood not only to purchase Crest, but also to engage in advocacy behaviors toward Crest. Among the general population group, relative to those

unaware of the program, those who are aware of the program display greater brand trust, and show greater likelihood to purchase Crest and to engage in advocacy behaviors. These group comparisons indicate that the Crest Healthy Smiles 2010 has built brand trust and generated relationship rewards for Crest among the beneficiaries as well as those non-beneficiaries aware of the program. Further, mediational analysis indicates that, as expected, trust mediates the relationship between participation in, or awareness of, the program and brand purchase and advocacy behaviors. To examine the process of trust development, we analyzed the data of the beneficiary group only. We find perceived efficacy of the initiative is positively associated with brand trust, and this relationship is fully mediated by intrinsic attributions. Interestingly, we find extrinsic attributions are not related to brand trust, which suggests that, contrary to prior literature findings, consumers are tolerant of extrinsic motives and view social initiatives as a win-win solution to social problems.

Our research links the CSR literature to the relationship marketing literature. Specifically, we shows that corporate social initiatives can strengthen consumer-brand relationships by building brand trust, which then leads to favorable consumer behaviors including both purchase and more relational, longer-term advocacy behaviors. We also find that perceived efficacy of social initiative is a key determinant of business outcomes, indicating there is a convergence of social and business interests. Finally, our finding that extrinsic attributions, conditional on the presence of intrinsic attributions, do not backfire on the sponsoring brand contributes to the attributions literature.

#### REFERENCES

- Ellen, P. S., Webb, D. J., & Mohr, L.A. (2006). Building corporate associations: consumer attributions for corporate socially responsible programs. *Journal of the Academy of Marketing Science*, 34 (2), 147 – 158
- Doney, P. M. & Cannon, J. P. (1997). An examination of the nature of trust in buyer-seller relationships," *Journal of Marketing*, Vol. 61, 35-51.
- Ganesan, S. (1994). Determinants of long-term orientation in buyer-seller Relationships. *Journal of Marketing*, 58, 1-19.
- Garbarino, E., & Johnson, M. S. (1999). The different roles of satisfaction, trust, and commitment in customer relationships. *Journal of Marketing*, 63 (April), 70-87.

- Kotler, P., & Lee, N. (2005). *Corporate social responsibility: doing the most good for your company and your cause*. New Jersey: John Wiley & Sons, Inc.
- Lewicki, R. J. & Bunker, B. B. (1995). Developing and maintaining trust in work relationships. In *Trust in Organizations*, Kramer, R. M. & Tyler, T. R. Eds. Thousand Oaks, California: Sage Publications, Inc.
- McAllister, D. J. (1995). Affect- and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of Management Journal*, 38, 24-59.
- Morgan R., M. & Hunt S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(July), 20-38.
- Rempel, J. K., Holmes, J. G. & Zanna M. P. (1985). Trust in close relationships. *Journal of Personality and Social Psychology*, 49(1), 95-112.
- Sirdeshmukh, D, Singh, J., and Sabol, B. (2002). Consumer trust, value, and loyalty in relational exchange. *Journal of Marketing*, 66, 15-37.

For further information contact: Shuili Du; Marketing Department; School of Management; Boston University; 595 Commonwealth Avenue, Boston, MA 02215; email shuili@bu.edu

### Exploring The Antecedents And Consequences Of Consumer-Brand Identification

Nicola Stokburger-Sauer, University of Mannheim, Germany  
 S. Ratneshwar, University of Missouri-Columbia  
 Sankar Sen, City University of New York  
 Hans H. Bauer, University of Mannheim, Germany

A key to the formation of strong ties between consumers and brands is the concept of *identification*. This concept, which in the field of psychology can be traced back to as far as Freud (1922), has been studied heavily in organization science, and more recently has received the attention of academic researchers in the branding area (e.g., Bhattacharya and Sen 2003; Fournier 1998). It seems likely that consumers identify with brands for cognitive as well as emotional reasons, and as in the work of Bhattacharya and Sen (2003), a number of different factors have been suggested as being conducive to consumer-brand identification (CBI).

While the conceptual aspects of brand identification have been the focus of several researchers, empirical work in this area seems to have lagged behind. Scholars have proposed and tested

scales for social identity and organizational identification (e.g., Mael and Ashforth 1992; Bergami and Bagozzi 2000), but such work does not address some of the unique aspects of the ties that potentially bind consumers to brands. Most fundamentally, brands are things we *consume* – thereby implicating the consumption experience itself as being integral to why we identify with some brands and not others. Thus, for example, the affective traces left in memory by a certain brand consumption experience, or the communal context in which a brand is consumed, can be among the factors leading to CBI. Such factors are unique to the consumption context and point to the need for a scale that takes them into account.

The objectives of the present research therefore are to (1) develop a parsimonious, yet relatively comprehensive scale for CBI with appropriate psychometric properties (including convergent and discriminant validity), and (2) assess its nomological validity via a test of an antecedents and consequences model.

A multi-stage process was employed for our research. After gaining insights through an extensive literature review, initial item development was accomplished with the help of qualitative in-depth interviews with eight German consumers and a test of a preliminary item pool involving 382 German respondents. This resulted in initial purification of the scale from 32 to 15 items. The main data collection for further scale purification and validation was then carried out with a Web-based survey administered to a panel of German consumers. A total of 796 responses were obtained for four product categories (athletic shoes, mobile phones, carbonated soft drinks, and grocery stores). Sample demographics are fairly representative of the German population (average age 40.6 years, 47% females).

The results from several analyses of this data set show that the proposed CBI scale has satisfactory psychometric properties and that it is likely to be superior to existing scales (e.g., Mael and Ashforth 1992). In addition, the results from confirmatory factor analyses and structural equation modeling methods provide support for the hypothesized relationships between CBI and its antecedents/consequences. In brief, CBI is influenced by three major groups of antecedent variables (i.e., brand characteristics, consumer-brand interactions, and consumer-consumer interactions). Additionally, CBI is found to have a significant effect on “brand success variables,” such as satisfaction, loyalty, and advocacy. Tests of moderating variables (e.g.,

product category symbolism) provide further evidence of the nomological validity of the scale.

For further information contact: Dr. Nicola E. Stokburger-Sauer; Department of Business

Administration and Marketing II; University of Mannheim; L 5, 1, D-68131 Mannheim, Germany; Tel.: 49 (621) 181-1720; Fax: 49 (621) 181-1571 ; Email:stokburger-sauer@bwl.uni-mannheim.de

**Emotion Regulation: Three Paths That Go Beyond Feeling Better**

Session Chairs: Adam Duhachek, Indiana University  
Nidhi Agrawal, Northwestern University

**ABSTRACT**

A vast body of research has now established the general proposition that feelings can play a very important role in how people make decisions. Past research related to how feelings affect our responses can be broadly classified into at least two categories. The larger of these streams examines the effects of mood (general valenced affective states of feeling pleasant or unpleasant). The other, smaller but growing, stream of research investigates the effects of more finely distinguished affective states called specific emotions. For example, anxiety is a specific emotion that is negatively valenced but characterized by other features such as uncertainty and lack of control. Anger is also a negative emotion that is negatively valenced but characterized by other features such as certainty and control. Looking at anxiety and anger from a mood standpoint would not distinguish between the two emotions since they are both negative states. However, thinking about them as specific emotions goes beyond valence and captures their different characteristics. Recent research has highlighted the need to study how these specific emotional states might affect consumer behavior (Agrawal, Menon, and Aaker forthcoming; Lerner and Keltner 1998; Raghunathan and Pham 1999; Tiedens and Linton 1999).

This session presents three papers that examine how specific negative emotions affect consumer behavior. Specifically, these papers use a variety of specific emotions (e.g., sadness, guilt, shame, anger, embarrassment) to examine how consumers' desire to repair their specific negative emotional state might affect their subsequent responses. The first paper by Zemack Rugar examines how people feeling sadness or guilt might exhibit more or less self-control depending on the extent to which they feel exerting self-control will help repair the emotion they are feeling. The second paper by Labroo and Rucker presents studies that show that people experiencing specific emotional states (anger vs. embarrassment) associated with specific goals prefer positive emotions that match those goal (happiness vs. calmness). The third paper by Duhachek and Agrawal investigates how feeling guilt or shameful might affect the effectiveness of anti-drinking appeals that could make people feel more guilty or more shameful. Using different perspectives on the regulation of specific emotions, each of the three papers presents multiple studies that examine how

such emotion regulation might affect consumer behavior. While the first paper examines the effects of emotion regulation on subsequent self-control, the second and third papers focus on the effects of emotion regulation in persuasion.

Finally, we are honored to have Durairaj Maheswaran as our discussant. Durairaj Maheswaran is acknowledged as one of the leaders in the study of goals, information processing, and emotions. His expertise in this area enhances the session by synthesizing the findings of the different papers in an integrative theoretical framework. Durairaj Maheswaran brings in ideas from the current research and his own work on persuasion (Maheswaran and Chaiken 1991), goals (Agrawal and Maheswaran 2005), and emotions (Chen and Maheswaran 2006) to bring together the three papers and highlight new theoretical directions. Durairaj Maheswaran is the current editor for the *Journal of Consumer Psychology* and the past president for the Society for Consumer Psychology. Drawing on his research and editorial experiences, Durairaj Maheswaran helps integrate the papers in the session with the current issues in consumer psychology.

The specific purposes of the proposed session are three-fold: (a) to delineate the theoretical underpinnings of the mechanisms and processes underlying specific emotional regulation, (b) to determine the conditions under which these processes operate, and (c) to determine how these processes might influence consumer behavior. The chairs, the participants, and the discussant will direct discussions and presentations to facilitate new insights related to these three purposes.

These three papers help provide a better understanding of marketing phenomena in the context of specific emotions. This is of particular importance since the extant literature on consumer information processing has not investigated numerous unique and interesting issues underlying emotion related information processing and decision making. Theoretical understanding of the factors and processes through which specific emotions affect consumer behavior has practical implications to designing effective consumer policies and communications. Each of the three papers in this session uses and extends existing theory in consumer psychology to address a separate aspect of specific

emotions. Thus, this session shapes an integrative theoretical framework.

These three papers together provide a more complete picture of the various processes and factors that affect specific emotion regulation. The papers in this session contribute to the area of specific emotions at the same time contributing to general theoretical areas of self-control, information processing, and persuasion. This research will also provide insight to practitioners interested in designing effective communications and understanding processes underlying emotional responses and self-control issues.

### **The Use of Self Control for the Regulation of Specific Emotions**

Yael Zemack Rugar, Virginia Polytechnic Institute and State University

Although self-control is a critical foundation of social and personal functioning (Baumeister 1997; Mischel 1996), we often fail at it. Existing research has shown that self control most often fails in negative emotional states (Baumeister 1997; Bushman et al. 2001; Heatherton et al. 1998; Tice et al. 2001). In fact, it has been argued that negative emotions and self control are antithetical in nature and cannot coexist (Tice et al. 2001).

In this paper we present a strategic view linking negative emotions and self control through the concept of emotion regulation. Specifically, we argue that in negative emotions individuals choose whether to increase or decrease self control depending on which behavior they believe is most useful for regulating negative emotion. As a result, levels of self control depend on the salience of the emotion regulation goal, the specific negative emotion experienced, and the individuals' coping characteristics.

Through this theoretical lens, we are able to make several empirical and theoretical contributions. First, we demonstrate in three separate studies that self-control can and does increase in negative emotional states, contrary to existing theories and findings (see Tice et al. 2001 for summary).

Second, we theoretically account for the cognitions that underlie goal pursuit (Carver & Scheier, 1998); these cognitions are a critical part of any goal theory, and have been heretofore unaccounted for. By accounting for these cognitions we are able to present an empirically more nuanced

picture of the relationship between negative emotions and self control. Additionally, we manipulate these cognitions independently from the emotion-regulation goal itself, and show (in studies one and two) that the cognitions cease to affect behavior when the emotion-regulation goal is not salient. These findings support our strategic view.

Third, we account for another, heretofore unaccounted for variable, the effects of different, specific, negative emotions. Prior research has lumped together different, specific negative emotions (e.g., sadness, anxiety, stress) under a single category of "negative affect". However, recent research has shown that different negative emotions are likely to be accompanied by different cognitions and different patterns of behavior (Lerner and Keltner, 2000). In studies two and three we address these differences and show that self-control behavior is moderated by the specific emotion type activated; thus, although all participants are in a negative emotional state (i.e., likely equally depleted) they show different levels of self-control.

Fourth, we further address nuances in the effects of negative emotions on self control by accounting for individual differences; these differences are shown to moderate self-control behavior in negative emotional states.

Finally, we demonstrate that self-control in negative emotions can occur through an automatic and therefore effortless process. Study three demonstrates that subtle emotion cues can activate emotion regulation goals outside of conscious awareness and drive self control behaviors in an automatic way.

In study one we seek to independently vary the salience of the emotion-regulation goal and emotion-regulation related cognitions. We vary the need to regulate emotion by using sad (salient emotion-regulation goal) vs. neutral (no emotion-regulation goal; Wilson et al. 2003) conditions. We also directly manipulate participants' belief regarding whether self-control will help/hurt their emotion.

We find a significant interaction of Emotion\*Belief. In the neutral condition, where emotion-regulation goals are not salient, self-control is unaffected by the belief manipulation. However, in the sad condition, where the emotion-regulation goal is salient, consumers increase or decrease self-control depending on whether they believe indulging will help/hurt their emotion. Consequently, individuals in a sad mood who believe indulging will

hurt their emotion show higher self-control than their neutral counterparts.

In study two we seek to both utilize naturally occurring emotion-regulation beliefs, and to further isolate the role of the emotion-regulation goal. To examine naturally occurring emotion-regulation beliefs, we conducted a pretest, and found that guilty individuals find indulging in an assortment of behaviors less conducive to emotion regulation than sad individuals. To isolate the role of the emotion-regulation goal we utilized Cialdini et al.'s (1973) emotion-relief procedure; we provided half the participants with a brief, emotion elevating experience, rendering their emotion-regulation goal inactive.

We conducted a 3 (Sad, Guilty, Neutral) by 2 (Emotion Regulation Goal: Present/Absent) between subjects design. We found, as predicted, that when the emotion regulation goal was present, participants in the guilty emotion condition indulged less than participants in both the sad and neutral emotion conditions; when the emotion regulation goal was deactivated (via the emotion relief procedure), these differences disappeared. Furthermore, the brevity of the emotion relief procedure ensured it did not affect depletion levels, and therefore these results cannot be explained by depletion theory.

In study three we seek to examine: (1) individual differences as a moderator for these effects, and (2) whether these effects would occur when the emotion cues were more subtle and less consciously processed. To subtly and nonconsciously activate emotion concepts and the emotion regulation goal, this study utilized a Scrambled Sentence Task (SST; see Bargh & Chartrand, 2000). The effects of such priming are of interest as it is likely to occur in the marketing environment where ads, signs, and other subtle verbal cues abound.

To examine individual differences, we included a habitual coping measure, guilt proneness (TOSCA; Tangney et al., 1992). According to existing literature, individuals high in guilt proneness and experiencing guilt are more likely to enact behaviors such as abstaining or volunteering (i.e., increasing self control) than individuals low in guilt proneness.

We conducted a 3 (Sad, Guilty, Neutral) condition study with a measured factor of guilt proneness. Results showed, as predicted, that participants who were primed via the SST had reported the same level of conscious emotions across conditions, indicating lack of awareness of neither

the emotion nor the goal to regulate it. Yet, these participants behaved consistently with their specific emotion condition and individual coping characteristic. Specifically, individuals who were primed with guilt and high in guilt proneness indulged less than both individuals primed with sad and neutral words; however, individuals primed with guilt and low in guilt proneness behaved similarly to sadness and neutral primed participants.

For further information contact: Yael Zemack-Rugar at Yael.zemack.rugar@vt.edu.

### **At the Intersection of Negative and Positive Emotions: Implications of Goal Matching for Emotional Benefits**

Aparna Labroo, University of Chicago  
Derek Rucker, Northwestern University

In any given year, approximately 9.5 percent of the population, or about 20.9 million American adults, suffer from a depressive illness, and it is estimated that 13.3% of the population will suffer from an anxiety disorder at some point in their lifetime. Although many of these are extreme cases of depression or anxiety, more mild forms of these negative emotions are likely to be experienced by an even larger number of consumers and to be experienced more often. In the present research we investigate how experiencing such distinct negative emotional states may lead to a preference for specific types of positive outcomes or states. Drawing on the emotions literature suggesting that emotions are associated predominantly with nurturance versus threat aversion goals (e.g., Cacioppo & Berntson, 1994; Higgins, 1997; Raghunathan & Pham, 1998), and on literature suggesting that goal-relevant outcomes or targets are evaluated more favorably (e.g., Fergusson & Bargh, 2004; Labroo & Lee, 2006), we propose that consumers experiencing negative emotions derive greater emotional benefit from thinking about positive emotional outcomes that match (versus mismatch) in goal orientation. Specifically, negative emotions that are associated with nurturance goals (e.g., anger, sadness) are predicted to lead consumers to perceive a greater emotional benefit from an outcome if the outcome is associated with nurturance emotions (happiness) versus threat aversion emotions (calmness). Conversely, negative emotions associated with threat aversion goals (e.g., anxiety, embarrassment) are predicted to lead to greater perceived emotional benefit when the outcome is framed as providing positive emotions associated with threat aversion (calmness) versus nurturance



(happiness). As a result, consumers are hypothesized to demonstrate a preference for positive emotional outcomes that match the goals of their preexisting negative emotions.

We further propose that positive emotional outcomes that match in goal orientation with preexisting negative emotions release motivational resources for subsequent cognitively challenging tasks, because negative emotions signal lack of progress on a goal whereas positive emotions signal goal completion. Consequently, preexisting negative emotions such as anger and sadness signal lack of nurturance goals and that motivational resource should be invested in securing these goals whereas anxiety or embarrassment signal the lack of threat aversion and that motivational resource should be invested in averting threat. Subsequently thinking about positive emotional outcomes that match (vs. mismatch) in goal orientation should reduce the activated goal and thus help release motivational resources for subsequent tasks. As a result, consumers not only show a preference for outcomes associated with positive emotions that match in goal orientation with preexisting negative emotions, but matching goals also appear to offer subsequent cognitive benefits by facilitating performance on subsequent taxing tasks. Four experiments were conducted to test these predictions.

In Experiment 1, participants completed a two-stage experimental procedure. First, participants were randomly assigned to write about a time they felt sadness, anger, anxiety, or embarrassment. Next, participants were asked to indicate how much emotional benefit they derive from thinking about things that make them happy versus calm. The data indicated that participants feeling angry or sad indicated more emotional benefit from thinking about happy versus calming things. In contrast, participants feeling embarrassed or anxious indicated more emotional benefit from thinking about calming versus happy things. Experiment 2 replicated these effects using a more subtle manipulation of the positive outcome. In particular, in Experiment 2 participants wrote about an academic event that made them feel sad or angry or anxious or embarrassed, and then evaluated an ad for a cruise line that described a happy versus tranquil vacation. The data indicated that angry participants or sad participants preferred a happy versus calm ad, but anxious participants or embarrassed participants preferred the calm versus happy ad. Participants also indicated greater emotional benefit from thinking about the vacation when it matched versus mismatched in goal orientation with the preexisting negative emotion,

and the extent of emotional benefit associated with the vacation mediated attitudes toward the ad.

Experiments 3-4 replicated these goal matching effects and further investigated whether goal matching of preexisting negative emotions with positive emotional outcomes could provide motivational resources to be applied to a subsequent unpleasant task. In Experiment 3, participants who were feeling sad or were feeling anxious were asked to evaluate an ad for a ski resort associated with happiness versus calmness, and then completed a taxing cognitive test. Replicating the results of Experiments 1-2, sad participants reported more favorable attitudes when they read the happy versus calm ad whereas the reverse was true for anxious participants. Furthermore, in the subsequent test of cognitive ability, sad participants performed better when they had previously read the happy versus calm ad whereas the reverse was true for anxious participants. In short, when goals activated by the emotions matched the positive outcomes offered in the ad, persuasion was greater as was participants' performance on a subsequent taxing task, suggesting that matching goals of the positive emotional outcomes may have somewhat assuaged the goals associated with the preexisting negative emotion. In Experiment 4 sad or anxious participants evaluated the ad for a cruise line also used in Experiment 2 that described a happy versus tranquil vacation and then indicated how much they were willing to donate toward a charity. We reasoned that if goal matching released motivational resource, sad participants would report more favorable attitudes after reading the happy versus calm vacation ad, and subsequently donate more to the charity, whereas the reverse would be true for anxious participants. This was the case.

Taken together, the present work thus contributes to our understanding of the interplay between distinct negative emotional states and distinct positive outcomes, and these studies offer new perspective on persuasion, perceived emotional benefits, and cognitive functioning. The four studies also rule out alternative accounts that might explain the data such as those associated with differences across conditions in involvement, processing ease, or arousal balancing.

For further information contact: Aparna Labroo at [alabroo@chicagogsb.edu](mailto:alabroo@chicagogsb.edu)

### **Emotions, (In)Compatible Frames, and Persuasion: The Case of Guilt, Shame, and Drinking**

Adam Duhachek, Indiana University  
Nidhi Agrawal, Northwestern University

Consumer researchers in recent years have taken interest in how specific emotional experiences impact consumer attitudes and behaviors (Agrawal, Menon, and Aaker, in press; Lerner and Keltner 1998). For instance, individual feeling specific emotional states that are negatively valenced such as anxiety, or sadness, or guilt might process information differently (Tiedens and Linton 2001). In line with this growing body of research, we examine how the two specific negative emotions of shame and guilt might affect the persuasiveness of appeals that feature frames compatible with shame or guilt.

Emotions may affect information in at least two ways. First, features of a message might lead us to experience certain emotions. For instance, messages that feature a potential risk or uncertain outcome may lead us to feel anxious. And second, emotional states have been shown to influence the processing of subsequent information even when their onset is incidental to the target information. We propose that incidental emotions interact with message frames that elicit distinct emotions to determine message effectiveness. In this research we examine how the two specific negative emotions of shame and guilt might affect the persuasiveness of appeals that lead consumers to experience shame or guilt.

We study these effects in the context of public service advertisements related to binge drinking among underage college students. Binge and underage drinking is an important consumer welfare issue that has caught the attention of legislators, marketers, and health and public policy experts. Although binge drinking behaviors are found in segments of the population across the life course, no consumer group is more likely to engage in binge drinking than the college-aged (18-25) consumer. Across a wide range of harmful behaviors (e.g., smoking, underage and binge drinking), public service messages employ at least three approaches. First, they might highlight the personal consequences of the given behavior (e.g., anti-drinking pamphlets for college students suggest binge drinking could lead to alcohol poisoning or other negative consequences affecting one's health). Second, messages might highlight the harm that performing that activity could cause to others (e.g., an anti-smoking ad that might ask a pregnant woman to consider the effects of her

smoking on her child). Third, consider messages that highlight the social undesirability of the behavior – that is what impression will friends form of the consumer if he/she behaves in a certain way? (e.g., anti-smoking ads that make the smoker appear as social outcast; anti drinking ads that highlight how drunk people can bring shame to themselves or family). These different approaches might be differentially effective depending on several factors. We identify the emotional processes and factors that might influence the effectiveness of these appeals. We propose that the emotions of shame and guilt will play a major role in the determining the effectiveness of these appeals because these different frames lead consumers to feel varying degrees of shame and guilt.

Shame and guilt, termed self-conscious emotions by emotions scholars are particularly powerful persuasive tools in the context of reducing harmful behaviors, such as binge and underage drinking because these emotions activate a desire to uphold a moral standard (guilt) or uphold ideals about one's desired self (shame). The present research blends a cognitive appraisal theory of emotion perspective (Keltner and Buswell 1996), compatibility-based theories of persuasion (Aaker and Lee 2001; Agrawal et al. forthcoming; Wegener and Petty 1998), and theories of mood repair and emotion regulation (Petty and Wegener 1994; Agrawal et al forthcoming) in hypothesizing that shame and guilt causing ad appeals will be differentially effective as a function the compatibility between this emotional state and emotion evoked by the ad framing. We test predictions related to the persuasive impact of compatibility between emotion-relevant ad frames and incidental emotion states.

In studies 1 and 2, we examine how ads that reference consequences for the self versus consequences for others (e.g., consequences of drinking for self vs. for others) impact intentions to engage in binge drinking behaviors. First, we show that other frames lead to greater guilt than self frames but the two frames do not lead to significantly different levels of shame. When experiencing incidental guilt, a consequences for self frame was more effective (i.e., led to lower drinking intentions) than a consequences for others frame.

Further, we theorize that shame and guilt differ not only in their sensitivity to self versus other related ad frames, but that key differences exist in the way consumers experiencing shame and guilt in response to different types of other-related ad frames. Specifically, messages that frame others in different roles (e.g., others are sufferers of consequences of

one's drinking versus others as observers of the consequences of one's drinking) may affect shame and guilt differentially. In studies 3-4, we find that frames focusing on how others might observe versus others might suffer the negative consequences of one's binge-drinking lead to greater feelings of shame and lower feelings of guilt. Message frames that elicited the same emotion that the participants were experiencing (i.e., compatible frames: suffer appeals for guilty participants, and observe appeals for shameful participants) were less effective and lead to greater intentions to drink. However, the compatible frames were more effective when participants reported decreased likelihoods that the average peer might binge-drink. The process underlying these incompatibility effects relates to emotional coping. People experiencing negative emotional states (e.g., guilt) are motivated to repair their specific emotional state and believe their action are less likely to lead to undesirable consequences

(e.g., hurt others) which leads them to deny the self-relevance of the compatible frame, rendering the compatible frame less effective.

This research contributes to the consumer literature in several ways. First, we examine the processes through which the self-conscious emotions of shame and guilt affect processing of advertising messaging. Second, we identify unique ad frames that give rise to both shame and guilt emotional responses. Third, we integrate appraisal and regulation theories of emotion and compatibility-based persuasion theory to identify conditions when the use of shame and guilt appeals is effective in reducing binge drinking intentions. Fourth, our framework identifies conditions where certain ad frame-ambient emotional state combinations actually result in increased message effectiveness. The implications of these findings for research and policy are discussed.

## Love and the World Loves with You? Asymmetry in the False Consensus Effect

Ashesh Mukherjee, McGill University

Andrew D. Gershoff, University of Michigan

Anirban Mukhopadhyay, Hong Kong University of Science/Technology

### ABSTRACT

Individuals often need to predict others' likes and dislikes (Gershoff, Broniarczyk, and West 2001). For example, when individuals offer advice to friends about movies, or buy a gift for a loved one, or recommend a restaurant to a colleague, they have to first assess their audience's likes and dislikes. In such situations, a large body of research indicates that individuals overestimate the extent to which their own views are shared by the population at large, an effect generally referred to as the false consensus effect (Marks and Miller 1987; Hoch 1988; Ross, Greene, and House 1977). In the present research, we add to this literature by identifying a new moderator of the false consensus effect, whereby the effect is shown to be stronger for alternatives that one likes compared to alternatives that one dislikes. This moderation is theoretically derived from two streams of research, one on the role of availability heuristic in the false consensus effect, and the other on asymmetries in the mental structure of likes and dislikes.

A widely accepted account for the false consensus effect is based on the availability heuristic (Ross et al. 1977; Mullen et al. 1985; Tversky and Kahneman 1973). According to this account, people find it easier to bring to mind reasons that support their own views, compared to reasons that support alternative views. Further, individuals rely on the ease with which reasons come to mind as a basis for inferences about the prevalence of their views in the population, which in turn leads to the false consensus effect (Goethals 1986). Recent research has also demonstrated an asymmetry in attribute information associated with liked versus disliked alternatives in memory (Herr and Page 2004; Gershoff, et al. 2007). It has been found that, hated alternatives (compared to loved alternatives) are more likely to contain counter-valence attributes, which refer to attributes that are opposite in valence to the overall evaluation (Gershoff, et al. 2003, 2006, 2007). Asymmetry in counter-valence attributes between disliked and liked alternatives implies a moderation of the false consensus effect, such that the effect is likely to be weaker for disliked alternatives, and stronger for liked alternatives. As discussed earlier, past research indicates that availability of reasons for one's preference can drive the false consensus effect (Mullen et al. 1985; Tversky and Kahneman 1973). In the present case, since it is relatively easy to think

of positive features of disliked alternatives, individuals are likely to be sensitive to the possibility of others liking or being neutral towards an alternative that they personally dislike. This, in turn, should dampen the overestimation of population consensus, thus reducing the false consensus effect for disliked alternatives. In contrast, since it is relatively difficult to think of negative features (but easy to think of positive features) of an alternative they liked, the false consensus effect is likely to be stronger for liked alternatives. The preceding arguments are summarized in the two following hypotheses:

**H1:** The false consensus effect is weaker when one dislikes an alternative, and stronger when one likes an alternative.

**H2:** The moderation of the false consensus effect described in H1 is driven by the availability of counter-valence attributes.

The above hypotheses were tested in two studies. In Study 1, one hundred and thirteen participants provided ratings of "like", "neither like nor dislike", or "dislike" for 27 ice-cream sundaes, and one hundred and nine participants provided corresponding ratings for 50 movie posters. Participants also provided their estimates of the "percent of other participants in the study" who would rate each sundae/poster as "like", "neither like nor dislike", and "dislike", such that total percentage summed to 100. The results were consistent with the basic false consensus effect, as well as its moderation by participants' likes and dislikes (i.e., H1). In Study 2, one hundred and three participants were randomly assigned to one of the four conditions in a 2 (own preference: like versus dislike) X 2 (generation of counter-valence attributes: easy versus difficult) between subjects design. Depending on own preference condition, participants were asked to provide the name of a movie they either liked or disliked. Next participants were asked to think of aspects of the named movie that were inconsistent with their overall evaluation, and to list either three or eight such aspects, depending on condition. This method of having participants list few or many aspects of an alternative has been shown to be an effective manipulation of perceived difficulty of bringing aspects to mind (Schwarz, Bless and Strack,

1991; Tversky and Kahneman 1973). Then, as before, participants estimated the percent of other study participants who might like, be neutral toward, or dislike the target movie. Finally, participants provided ratings on a seven-point scale to indicate how difficult it was to think about aspects of the target movie that were inconsistent with their overall evaluation (Schwarz et al. 1991). Results were again consistent with the basic false consensus effect, as well as its moderation by participants' likes and

dislikes (i.e., H1). In addition, results indicated that the extent of moderation of the false consensus effect by own evaluation was influenced by the ease of recall of counter-valence attributes (i.e., H2). Thus, taken together, the two studies provide convergent evidence for an important boundary condition for the false consensus effect, as well as insight into the psychological mechanism underlying this boundary condition.

### The Effects Of The Dual Roles Of Online Consumer Reviews On Purchasing Intention Depending On The Level Of Expertise

Do-Hyung Park, Graduate School of Management, Korea Advanced Institute of Science and Technology  
Sara Kim, Graduate School of Management, Korea Advanced Institute of Science and Technology  
Ingoo Han, Graduate School of Management, Korea Advanced Institute of Science and Technology

#### ABSTRACT

Before the emergence of the new WOM channel, the Internet, marketers could not strategically set plans for WOM because WOM was hardly traceable. Different from traditional WOM, WOM on the Internet, called electronic word-of-mouth (eWOM), is measurable since comments of previous consumers on products accumulate on websites. In this research, one type of eWOM, online consumer reviews, is investigated.

Referring to the definition of eWOM (Stauss 2000), the study defines online consumer reviews as positive or negative statements made by consumers about a product in online shopping malls. Online consumer reviews play two major roles influencing consumer decision making: a recommender role and an informant role. First, online consumer reviews as a recommender provide a signal of the product popularity inferred from the number of positive reviews because the number of reviews is related to sales volume of the product. Also, the number of reviews is likely to lead consumers to rationalize their purchasing decision by telling themselves, "Many other people also bought the product." in conformity with previous consumers. Online consumer reviews also play the informant role. As an informant, online consumer reviews deliver additional user-oriented information. There are two types of review information. One type is attribute-centric reviews, which are specific and clear about which aspects of the product attributes are good. The other type is simple recommendation reviews, which are subjective, emotional and have no supportable product related arguments.

How experts and novices process different types and numbers of reviews can be explained with the Elaboration Likelihood Model (Petty and Cacioppo, 1984; Petty and Cacioppo, 1986). Experts are willing to engage in effortful processing of the focal messages and infer the benefits of the product by themselves. No matter how many reviews are given, the reviews are not perceived as being informative unless they contain product attribute information. The increase of simple recommendation reviews does not affect perceived informativeness. In contrast, for novices, persuasion comes from the peripheral route so they tend to rely on peripheral cues such as the

signal of product popularity inferred from the number of reviews. According to the study, the type of reviews is important to them.

Both the perceived popularity and informativeness of reviews influence purchasing intention. Sociologists suggest that consumers have social desirability to conform to the expectations of others, so they often determine their behavior by observing the behaviors of others (Rindfleisch, 1998). The perceived popularity of a product shown via online consumer reviews gives evidence of social desirability, and therefore increases purchasing intention. The relationship between the perceived informativeness and purchasing intention is studied in the advertisement informativeness literature. Previous studies suggest that the greater the number of informative messages that are processed, the greater the number of favorable associations that consumers have, resulting in the increase of behavioral intention (Anand and Sternthal 1990). The results are consistent with the previous research.

The study shows that the effects of the informativeness of reviews and the popularity of a product on purchasing intention are moderated by expertise. Experts can understand and process the product-related information in an easier and faster way (Johnson and Russco 1984). They feel little need to consult others (Gilly et al. 1998). Therefore, experts put more weight on the informativeness of reviews than on a signal of product popularity. By contrast, novices lack the ability to assess attribute information (Mahesworean and Sternthal, 1990). They are more likely to rely on others' opinions and comments about the product. As a result, novices put more weight on the recommendation role delivering a signal of product popularity than on the informant role of reviews.

The study contributes to the studies on the effects of word-of-mouth. Different from traditional word-of-mouth, electronic word-of-mouth via online consumer reviews is measurable. The study investigated the informant and recommender roles of online consumer reviews. Two factors of review structure – the type and the number of reviews – influence the perceived product popularity and the perceived informativeness of reviews, resulting in a

change in purchasing intention. This study also contributes to explaining how expertise influences the information processing of eWOM. Different from the advertisement messages containing only product information, the messages of eWOM contains both product information and recommendations. This study shows that experts put more weight on the product information of eWOM messages, while novices put more weight on the recommendations of eWOM messages.

The findings also have practical implications for marketers. Marketers can set different strategies for consumers with different levels of expertise. For expertise, marketers need to guide the review content by providing review formats about what should be included in the reviews, to enhance the overall informativeness of the reviews. For novices,

marketers need to provide summary information such as the total number of reviews so that novices get the signal that a product is popular.

Further studies are needed to reveal other factors influencing the dual roles of online consumer reviews. For instance, site trust or characteristics of products can affect on the importance of dual roles. In addition, studies on negative reviews are needed to generalize the findings of the effects of eWOM.

For further information contact: Sara Kim; Graduate School of Management; Korea Advanced Institute of Science and Technology; 207-43 Cheongrangi-Dong, Dongdaemun-Gu; Seoul 130-722, South Korea; Tel. +82-11-9058-3616, Fax. +82-2-958-3636 ; E-mail: rokoiha@kgsm.kaist.ac.kr

## When the Marketer Decides What the Consumer Buys: The Moderating Influence of Relationship Norms on Satisfaction with Self- Versus Marketer-Selected Outcomes

Pankaj Aggarwal, University of Toronto  
Simona Botti, Cornell University

### ABSTRACT

Prior research has demonstrated that personally-made, as compared to externally-dictated, choices lead to greater task enjoyment, superior cognitive performances, and more positive affect (Brehm 1966; Festinger 1975; Langer 1975; Taylor and Brown 1988). Recent research, however, has found moderators to the beneficial effects of self-choice (Botti and Iyengar 2004) including cultural and social norms regulating interpersonal exchanges. For instance, Iyengar and Lepper (1999) show that the difference in liking between a self-selected and a other-selected cognitive task is smaller for Asian-Americans relative to Anglo-Americans when the task is selected by an in-group member. In addition, Snibbe and Markus (2005) find that preferences vary across members of different socioeconomic groups depending upon whether or not an outcome is chosen by the self or by another.

Extending these findings to a consumption setting, the present research hypothesizes that the norms underlying different types of relationships between marketers and consumers moderate consumers' satisfaction with a self-chosen relative to a marketer-chosen outcome. This hypothesis draws on recent research suggesting that consumers' responses to the marketer's actions are a function of the relationship norms between the two (Aggarwal 2004; Fournier 1998). Two types of consumer-marketer relationships are examined: communal and exchange (Mills and Clark 1982). In a communal relationship, people give benefits to relationship partners due to a concern for their well-being. Thus, if in a communal relationship the marketer makes the choice, it is expected that it would have acted in the best interest of the consumer; consequently, the consumer is likely to be satisfied with this choice. Conversely, an exchange relationship is based on the principle of quid pro quo. People know that benefits are given in order to get something in return. As such, if in an exchange relationship the choice is made by the marketer, this choice will likely be perceived as motivated by the marketer's own interests, and the consumer is less likely to be satisfied with it. We therefore hypothesize that the consumers' satisfaction with a marketer-chosen outcome will be lower compared to a self-chosen outcome when they have an exchange relationship

than when they have a communal relationship with the marketer.

Study 1 was a 2 (relationship: communal vs. exchange) x 2 (choice: self-made vs. marketer-made) between subject design, and scenario descriptions were used to manipulate the participants' relationship with a hypothetical bookstore. Participants were told that as part of a promotion the bookstore was giving away one of four novels to its customers. In the self-choice condition participants could select the novel themselves while in the marketer-choice condition the novel was chosen by the bookstore. As hypothesized, results showed that participants in the exchange condition experienced lower satisfaction with the marketer-chosen book than with the self-chosen book, while those in the communal condition perceived no difference in satisfaction across the choice conditions. An analysis of thought protocols provided further evidence by showing that when the choice was made by the marketer, exchange participants, relative to communal ones, perceived the marketer to act more in its own interest and less in the consumers' interest.

Study 2 was designed to replicate these results and to rule out a reactance-based alternative explanation (Brehm 1966) according to which participants in an exchange relationship would evaluate the marketer-chosen outcome less positively not because of different attributions about the marketer's motivations but because of the greater perceived violation of their freedom to choose. To test this rival explanation, we allowed participants to either choose the novel themselves or let the marketer choose it. If the reactance account were driving the results of study 1, then we should observe a weaker or even a reverse effect in study 2, especially for participants in the exchange condition. However, if the attribution based account were the primary driver, then the results of study 2 should replicate those of study 1. Results yielded an interaction effect mirroring those of study 1 consistent with an attribution rather than a reactance explanation.

It was somewhat surprising that the exchange non-choosers experienced lower satisfaction than choosers in spite of their voluntary decision to relinquish the choice to the marketer. Could they have not foreseen this lower satisfaction, in which



case they should not have relinquished their right to choose in the first place? It is likely that by providing the participants information about the four alternatives we gave them the opportunity to form 'own' preferences. When these preferences were not consistent with the marketer's choice, participants may have tried to explain this mismatch by using the relationship norms. Thus, communal consumers may have interpreted the mismatch as evidence of the marketer's knowledge of another, equally satisfying option, whereas exchange consumers may have interpreted the same mismatch as evidence of its selfish motivation.

Study 3 tests this explanation. Prior work on Deviance Regulation Theory (Blanton and Christie 2003) suggests that when people behave counter-normatively, they put greater weight on the positive features of that behavior. Given that exchange participants who gave up their right to choose behaved counter-normatively, we expect them to evaluate the marketer-chosen alternative more positively if they do not have any opportunity to compare it with their own preferences. Thus, in this study we replicated the design of study 2 except that there was no information given about the four different alternatives. Consistent with our hypothesis, we found a reversal of the effect for exchange non-choosers—who evaluated the final outcome more positively than exchange choosers—whereas no significant difference was observed between communal participants in the two relationship conditions. Further, this interaction was mediated by participants' assessments of the marketer's motivations, suggesting that these inferred attributions drove the differences.

Overall, consumers' satisfaction with the outcome of a self-chosen versus a marketer-chosen outcome depends on the norms underlying the consumer-marketer relationship, and the resultant differences in attributions made by the consumers. It is not just the outcome per se but the attributions about the motivations of the decision maker that are influential in shaping our overall satisfaction with a decision outcome.

## REFERENCES

- Aggarwal, Pankaj (2004), "The Effects of Brand Relationship Norms on Consumer Attitudes and Behavior," *Journal of Consumer Research*, 31 (June), 87-10
- Botti, Simona and Sheena S. Iyengar (2004), "The Psychological Pleasure and Pain of Choosing: When People Prefer Choosing at the Cost of Subsequent Outcome Satisfaction," *Journal of Personality and Social Psychology*, 87, 312-326.
- Blanton, Hart, and Charlene Christie (2003), "Deviance Regulation: A Theory of Identity and Action", *Review of General Psychology*, 7(2), 115 - 49.
- Brehm, Jack (1966), *A Theory of Psychological Reactance*, New York, NY: Academic Press.
- Festinger, Leon (1957), *A Theory of Cognitive Dissonance*, Evanston, IL: Row, Peterson.
- Fournier, Susan (1998), "Consumers and Their Brands: Developing Relationship Theory in Consumer Research," *Journal of Consumer Research*, 24 (March), 343-73.
- Iyengar, Sheena S., and Mark R. Lepper (1999), "Rethinking The Value of Choice: A Cultural Perspective on Intrinsic Motivation. *Journal of Personality and Social Psychology*, 76, 349-66.
- Langer, Ellen J. (1975), "The Illusion of Control", *Journal of Personality and Social Psychology*, 32 (2), 311-28.
- Mills, Judson and Margaret S. Clark (1982), "Communal and Exchange Relationships," in *Review of Personality and Social Psychology*, Ladd Wheeler(ed), Beverly Hills, CA: Sage, 121-144.
- Snibbe, Alana C. and Hazel R. Markus (2005), "You Can't Always Get What You Want: Educational Attainment, Agency, and Choice," *Journal of Personality and Social Psychology*, 88 (4), 703-720.
- Taylor, Shelley E., and Jonathon D. Brown (1988), "Illusion and Well Being: A Social Psychological Perspective on Mental Health", *Psychological Bulletin*, 103 (2), 193-210.

**Consumer Marketplace Intelligence And Vulnerability:  
Advertising Deception, Deception Knowledge And Expectancies**

Guang-Xin Xie, University of Oregon  
David M. Boush, University of Oregon  
Courtney N. Boerstler, University of Oregon

**ABSTRACT**

Consumers can actively cope with advertising deception with specific motives, knowledge, expectancies, and a pragmatic expertise of marketplace metacognition (Wright, 2002). Building upon the Persuasion Knowledge Model (PKM), we propose that consumers' attitude toward potentially deceptive advertisements differs in response to both situational factors and individual differences. Study 1 examines the effect of deception knowledge, as an indicator of consumer marketplace intelligence, on perceived deceptiveness and consumers' attitude toward ads in high and low stake situations. Study 2 further examines the effect of individual vulnerability differences in optimistic expectancies and need for cognition in structural equation models. The results

suggest that 1) participants in the condition with deception knowledge cues were more skeptical toward advertisements than those in the control condition. However, the deception knowledge cues did not affect their attitude toward the ads. It was the perceived deceptiveness that directly influenced attitude, and the effect was greater in high than in low stake situations; 2) participants' optimistic expectancies moderated the effect of perceived deceptiveness on attitude toward deceptive ads. Theoretical and practical implications are discussed.

For further information contact: Guang-Xin Xie; Department of Marketing; 1208 University of Oregon; Eugene, OR, 97403-1208; Phone: 541-337-7397; Email: [gxie@uoregon.edu](mailto:gxie@uoregon.edu)

## The Differential Effects Of Scarcely Dressed Male And Female Models In Advertising

Nathalie Dens, University of Antwerp  
Patrick De Pelsmacker, University of Antwerp  
Wim Janssens, University of Antwerp

### ABSTRACT

This research studies attitudes towards the ad and brand, purchase intention, and brand recall for ads showing a single female model, a single male model, and both models together.

### Literature review and hypotheses

The general conclusion concerning sex appeals in advertising is that these ads mainly result in unfavorable attitudes towards the advertisement ( $A_{ad}$ ) and brand ( $A_b$ ), and a lower purchase intention ( $Pi$ ). Studies have also reported different reactions to eroticism for men and women. Erotic advertising can be an effective way to target men, but not women. This result was consistently found for ads showing female models.

Based on earlier research, we expected men and women to show more positive  $A_{ad}$ ,  $A_b$ , and  $Pi$  for ads using a model of the opposite sex, compared to a same-sex model (H1a). We also expected that models of both sexes together would score better than just the same-sex model (H1b).

In addition, we expected these effects to be more outspoken when nudity was concerned. We expected men to respond most favorably in terms of  $A_{ad}$ ,  $A_b$ , and  $Pi$  to advertising showing scarcely dressed female models and scarcely dressed models of both sexes together, compared to the other conditions (H2a). Compared to the other conditions, women were hypothesized to respond most favorably in terms of  $A_{ad}$ ,  $A_b$ , and  $Pi$  to advertising using scarcely dressed male models and the combination of fully dressed male and female models in one ad (H2b).

Nudity in advertising draws attention to the stimulus, but simultaneously results in weaker recall of the advertised brand, as the attention paid to the sexual illustration detracts from the brand name. We expected men to recall nude ads better than women (H3a). In addition, we expected men to recall brands using single female models better than respectively brands using both male and female models and single male models, whereas women better recall brands using single male models than respectively male and female and single female models (H3b). We also hypothesized men would best recall brands using scarcely dressed female models and scarcely dressed

models of both sexes together, women for brands using scarcely dressed male models and fully dressed models of both sexes together (H3c).

### Research method

A 3(model: single male, single female, both male and female) x 2 (ad nudity: dressed, scarcely dressed) x 2 (consumer: male, female) between-subjects design was set up. Six versions of an ad for a new brand of pillows were created, featuring either a male or female model, or both, wearing either pajamas or just underwear. Consumer gender served as the third factor. Through an online survey, 328 fully completed questionnaires were obtained (59% students, 51% women). Dependent variables were  $A_{ad}$  (4 items,  $\alpha = .932$ ),  $A_b$  (3 items,  $\alpha = .854$ ),  $Pi$  (3 items,  $\alpha = .865$ ), and brand recall.

### Results

Ad nudity had a significant negative main effect on  $A_{ad}$ ,  $A_b$ , and  $Pi$ . Women disliked nudity in ads, men were indifferent. We found a significant model gender x consumer gender interaction on  $A_{ad}$  and  $A_b$ , largely supporting H1. For men, ads depicting a female model scored the highest, ads showing a single male model lowest, and ads showing both models in between. For women, the ads with a single female model were least effective, but the ad and brand were even better liked with both a male and female model than with a single male model. The three-way interaction was marginally significant for  $A_b$ . Both men and women responded more negatively when shown a nude ad depicting the single model of either sex. When shown the ads with both models, however, men showed a slight preference for the nude ads, whereas women strongly preferred the dressed ads, partially supporting H2.

Brand recall was marginally significantly higher for the dressed versions than for the nude versions. Women recalled the brand less in the nude than the dressed versions; for men, the difference was not significant. Contrary to H3a, the difference between men and women for the nude ads was not significant. In partial support of H3b, men recalled the brand name better for the ads with a female version than for the other two model gender versions, and also recalled this ad better than women. Women did not recall the brand name better in the ads showing single men than in the other versions. Ads showing both

models were not better recalled than same-sex ads. Men significantly recalled the nude ads showing a single female model better than the other nude ads. They recalled the male ad less when it was nude than dressed. Women best recalled the dressed male ad. The ad with both models dressed was among the highest recalled, partially supporting H3c.

#### **Discussion, conclusion and future research**

Scarcely dressed models in advertising lead to more negative attitudes, purchase intention and lower recall compared to dressed models. Overall, men responded indifferently to nudity in ads. Only when both model genders were present, did men show a preference for nudity. In response to the single-sex stimuli, both sexes expressed more negative attitudes and purchase intention with nude models than with dressed models. Men and women prefer ads with models of the opposite sex, especially when the models are scarcely dressed. For both men and women, the nude ad of a model of their own sex was the least liked and among the least recalled.

Brands using ads that elicited more positive attitudes and purchase intention, were also better recalled. Men showed the highest recall of the brand name with a female version. Men also recalled the brand significantly more often with a nude female ad than with the nude ads with a male model or both models. They recalled the brand less for the male ad when the model was nude than dressed. Women recalled the brand less in the nude versions than the dressed versions; for men, the difference in recall between nude and clad versions was not significant.

Future research could focus on the effect of consumer age and model attractiveness, and on testing whether our results are generalizable (e.g., over different products).

For further information, contact Nathalie Dens, University of Antwerp, Prinsstraat 13, office Z.306, B-2000 Antwerp, Belgium. E-mail: [nathalie.dens@ua.ac.be](mailto:nathalie.dens@ua.ac.be).

**A Hierarchical Model Of Consumers' Response To Advocacy Advertising:  
Consumer Skepticism, Empathic Response, Empathic Emotions, And Prosocial Behavior**

Robert Madrigal, University of Oregon  
Monica LaBarge, University of Oregon  
Johnny Chen, University of Oregon

**ABSTRACT**

Advocacy ads typically refer to corporate advertising aimed at influencing audiences on topics beyond the straightforward marketing of products and services. However, advocacy ads are also produced by organizations wishing to promote a particular position on an issue such as when the Sierra Club advocates for consumer action against drilling in the Arctic National Wildlife Refuge. We argue that advocacy ads are likely to be most effective when they create an emotional response in consumers that is premised on feelings of empathy for the affected parties.

In a study of empathic response, Escalas and Stern (2003) reported that feelings of sympathy toward an aggrieved party precede empathy in predicting attitudes and that the two are interconnected parts of a system rather than mutually exclusive reactions. Whereas sympathy reflects a conscious awareness of another's feelings, empathy occurs when the observer's feelings are more congruent with another's situation than with his or her own. Research has consistently shown that increased levels of empathy predict helping (Bagozzi & Moore, 1994). However, it must be remembered that consumers are active recipients of advertising messages. As such, the efficacy of an ad is likely to be dependent upon how it is evaluated. An advocacy ad interpreted as being overly manipulative and/or lacking in credibility may cause the emotional response originally intended by the advertiser to be attenuated or even negated (Cotte, Coulter, & Moore, 2005; Coulter & Pinto, 1995; Englis, 1990). Thus, we consider two dimensions of consumer skepticism: ad credibility (i.e., the perceived truthfulness and believability of the ad) and inferred manipulative intent (i.e., a belief that the advertiser is trying to persuade in an inappropriate manner).

We expect that feelings of empathy will elicit a set of empathic emotions that arise from the observer's evaluation of the aversive situation along several appraisal dimensions (e.g., blameworthiness, goal congruence, certainty). We focus on four empathic emotions: anger, guilt, worry, and hope. Empathic anger results from appraising a victim's plight as being incongruent with the observer's own goals or desired end state (e.g., fairness, justice)

and/or an appraisal that there are outside causal agents who are to blame for the harmful action (Hoffmann, 2000; Haidt, 2003; Lazarus, 1991). Feelings of guilt are elicited when blame can be attributed to the self or victim such as when the observer perceives himself as personally benefiting from the situation or when the victims are thought to be responsible for creating the situation. The final emotions considered here are worry and hope which are concerned with the certainty of future events. Whereas the uncertainty arising over the potential negative consequences associated with a given situation creates feelings of worry, hope is the recognition that a favorable resolution to the situation is possible. Although not always acted upon, emotions create a motivational and cognitive state in which there is an urge to take certain goal-directed actions. In the case of empathic emotions, the types of coping actions thought to occur are those of a prosocial nature that are directed at alleviating the victim's suffering.

Data were collected from 211 university students in exchange for course credit. Respondents listened to a radio ad describing a proposed pipeline to be built by Conoco Oil in the Peruvian Amazon rainforest. The ad noted that Conoco was seeking funding from the Inter-American Development Bank and the US Export-Import Bank. The group advocating against project funding was identified as the Natural Habitats Foundation. The ad ended with a call to action in which listeners could help by engaging in one or more specific actions. To ensure variance on key variables, four different versions of the radio ad were created based on the appraisal of blameworthiness: (1) blame-company, moderate self-blame, (2) blame-company, high self-blame, (3) blame-victim, moderate self-blame, and (4) blame-victim, high self-blame.

Structural equation modeling was used to test a hierarchical model in which ad credibility and inferred manipulative intent predicted sympathy which, in turn, predicted empathy. Paths from empathy to each of the empathic emotions were then specified, as were subsequent paths from each emotion to active coping. The model also controlled for respondents' attitude toward oil companies and for the experimental manipulations. Our

hypothesized model provided an excellent fit to the data. As expected, a negative correlation was found between ad credibility and inferred manipulative intent. Results also indicate that the more credible the advocacy appeal was perceived as being, the greater the sympathy for the people living in the region. In contrast, inferences of manipulative intent were negatively related to sympathy. Consistent with Escalas and Stern (2003), sympathy had a positive direct effect on empathy which, in turn, was positively related to each empathic emotion. Each of the emotions but anger had a direct positive effect on active coping. No direct effect was found for anger. Also confirmed was the mediating role played by empathy. In one-at-a-time tests, significant indirect effects of sympathy on each emotion through empathy were found. For all but one emotion (anger) in which no direct effect was found, empathy fully mediated the significant direct effect of sympathy on the respective emotion. Our results also indicate that the significant direct effect of empathy on active

coping is fully mediated by each of the empathic emotions except anger.

We also considered alternative models in which the sequencing of variables proposed in our model was varied. First, we tested a model in which empathy predicted sympathy. We found that this model provided an inferior fit to the one hypothesized in our study in which sympathy predicted empathy. We also tested a model inspired by the sequence proposed by Bagozzi and Moore (1994) in which emotions predict empathy and this, in turn, predicts active coping. Again, the fit of this model was far worse to that of our model that predicted an empathy → emotion → coping hierarchy.

For further information contact: Robert Madrigal; Lundquist College of Business; 1208 University of Oregon; Eugene, OR 97403-1208; (541) 346-5163; rmadriga@lcbmail.uoregon.edu

## The Justification Heuristic: The Impact Of Effort And Income Stinginess On The Decision To Indulge

Ran Kivetz, Columbia University  
Yuhuang Zheng, Fordham University

### ABSTRACT

Consumers often face a fundamental self-control dilemma between indulging and delaying gratification. How decision-makers resolve this dilemma is a central question in the voluminous and interdisciplinary literatures on self-control and time-inconsistency, which examine tradeoffs between immediate pleasures and long-term interests (vices versus virtues, respectively). Prior research and common sense suggest that people are more likely to relax their self-control and select vices when they have a compelling justification (e.g., Prelec & Herrnstein, 1991; Shafir, Simonson, & Tversky, 1993). However, a critical question that has not yet been studied is how such justifications are constructed. Accordingly, the main goal of the present research is to shed light on the antecedents of justification and their impact on self-control.

Building on prior analyses in the social sciences (e.g., Kivetz & Keinan, 2006; Kivetz & Simonson, 2002; Maslow, 1970; Scitovsky, 1992; Thaler, 1985; Weber, 1958), we propose two complementary routes to justifying self-gratification: one through hard work or excellent performance (i.e., an entitlement or deservingness justification) and the second through the attainment of vices without the depletion of income. A synthesis of these two routes suggests that the preference for vice over virtue will increase with the expending of resources perceived as effort but will decrease with the expending of resources perceived as income or money. We test this and other related propositions in a series of studies with real effort activities (e.g., completing a computerized letter recognition task) and real choices between relative virtues and vices.

Studies 1a - 1c show that perceiving oneself as having invested higher effort enhances the likelihood of choosing (a) to subsequently participate in a fun study with no delayed benefits rather than in a painful self-assessment study with long-term benefits; (b) lowbrow over highbrow movies; and (c) a delicious chocolate cake over a healthier fruit salad. Importantly, these self-control dilemmas were adopted from prior research on self-control (Fujita, Trope, Liberman, & Levin-Sagi, 2006; Read, Loewenstein, & Kalyanaraman, 1999; Mischel, 1974; Shiv & Fedorikhin, 1999; Trope & Liberman, 2000; Trope & Neter, 1994). Studies 1a - 1c also demonstrate that self-control choices are influenced

by effort investment that is either absolute or relative (i.e., to the effort invested by others) and regardless of whether the effort activity and the self-control decision are related (as in effort-reward contingencies) or unrelated (as in two ostensibly separate studies). Further, consistent with the proposed conceptualization, higher effort is shown to have a stronger effect on people who perceive the choice as involving a conflict between short- and long-term interests.

In Study 2, we manipulate participants' guilt by asking them to recall either few or many instances of choosing vice or virtue (see Schwarz, Bless, Strack, Klumpp, Rittenauer-Schatka, & Simons, 1991). We find that stronger emotions of guilt magnify the impact of effort on subsequent self-control decisions. This finding is consistent with the conceptual framework because it implies that a greater need to justify self-gratification sensitizes people to the presence of justification cues.

Study 3 shows that, although greater effort enhances the preference for vices, this effect is reversed when the interchangeability of effort and income is implied (by providing the effort's typical, yet unavailable wage). Study 4 extends the entitlement justification by demonstrating that participants who are led to believe that they excelled in an effort task are more likely to select vice compared to participants who are provided with mediocre or no performance feedback; we also re-examine the attenuating effect of alluding to the interchangeability of effort and income.

The last two studies investigate the implications of the two justification routes for willingness to expend different resources to attain either vices or virtues. In particular, Study 5 shows that people are willing to pay in effort more for luxury than for necessity but are willing to pay in money less for luxury less than for necessity. Study 6 generalizes this finding by holding constant the actual resource investment and framing it as either effort (solving anagrams) or income (by providing the typical, yet unavailable wage per anagram solution). Consistent with the results of Study 2, in which we manipulated guilt, throughout Studies 3 - 5 we find that the predicted effects are more pronounced among individuals who suffer from stronger chronic guilt. The final section highlights the unconscious nature of

the two justification routes and their ability to explain the findings of prior research on self-control.

For further information, contact Yuhuang Zheng, 420 E 70<sup>th</sup> Street 3F, New York, NY 10021. Email: [ayuzheng@fordham.edu](mailto:ayuzheng@fordham.edu). Order of authorship is alphabetical.



## Tightwads And Spendthrifts

Scott Rick, Carnegie Mellon University  
Cynthia Cryder, Carnegie Mellon University  
George Loewenstein, Carnegie Mellon University

### ABSTRACT

In economics, Paul Samuelson's (1937) discounted utility model is widely accepted as an accurate representation of the way people actually make intertemporal choices. According to this perspective, people consume now if the benefits of doing so outweigh the foregone benefits of future consumption. The decision is assumed to be purely cognitive; the only emotions that decision-makers take into account are presumably those that are anticipated to occur if various courses of actions are taken.

However, a recent study by Knutson et al. (2006) suggests that emotions experienced at the moment of choice also influence intertemporal choice. In an experiment in which participants decided whether or not to purchase a variety of discounted goods while having their brains scanned with fMRI, Knutson et al. (2006) found that activation in nucleus accumbens, a region previously associated with anticipation of gains and positive arousal (Knutson et al. 2001; Kuhnen and Knutson 2005), correlated positively with purchasing decisions. However, activation in insula, a region previously associated with anticipation of pain and negative arousal (Buchel and Dolan 2000; Chua et al. 1999), correlated negatively with purchasing decisions. Critically, these correlations remain significant after controlling for participants' self-reported attraction to the goods and their willingness to pay for them. This work suggests that it is not merely cognitions about anticipated emotions that influence consumer choice, but also anticipatory emotions experienced at the moment of choice.

We investigate whether individual differences in tendencies to experience anticipatory pleasure and

pain when contemplating spending decisions drive some consumers to diverge from their desired spending habits. We develop and psychometrically validate a "Tightwad-Spendthrift" scale to measure the extent to which anticipatory emotions drive typical spending habits to diverge from desired spending habits. In our sample of over 2,500 people we find a roughly equal number of "tightwads," who report typically spending less than they would like to spend, and "spendthrifts," who report typically spending more than they would like to spend, a finding that is surprising given the far greater attention received by the latter, both in the media and the academic literature.

However, we also find that some situations moderate the impact of individual differences in spending. Specifically, we find that tightwads and spendthrifts behave similarly when the prospect of spending does not induce pain (e.g., when discounts are large) or when spending does not promise pleasure from consumption (e.g., when buying gifts for others). Drawing on dual-process theories of emotion and cognition (e.g., LeDoux 1996), we also predicted that tightwads would spend more, and spendthrifts would spend less, when they thought more deeply about their decisions. In an experiment in which we induced sadness to deepen thought (Forgas 1995), we indeed found that tightwads spend more when sad than when in a neutral state and that spendthrifts spend less when sad than when in a neutral state.

For further information contact: Scott Rick;  
Department of Social and Decision Sciences;  
Carnegie Mellon University; Pittsburgh, PA 15213;  
Telephone: (412) 268-2869; Fax: (412) 268-6938 ;  
Email: srick@andrew.cmu.edu

**At Your Own Risk: The Influence Of Self-Identity On Perceived Vulnerability To Identity-Specific Risks**

Steven Sweldens, RSM Erasmus University  
Stefano Puntoni, RSM Erasmus University  
Nader Tavassoli, London Business School

**ABSTRACT**

Perceived vulnerability or risk is a major determinant of health-protective behavior. Identifying conditions that affect risk perception thus occupies a position of special societal significance. This article links literature on risk to literature on self-identity. The latter one highlights the influence of situational factors on our self-concept (Markus & Kunda, 1986). We explore how inherent characteristics of a risk interact with salient aspects of self-identity to influence estimates of perceived vulnerability. In particular, we investigate how the salience of a certain identity trait can influence one's perceived susceptibility to risks associated with this trait. We predict an influence of identity salience on perceived vulnerability to relevant identity-specific personal risks. We assessed the influence of identity salience on identity-specific risks in a gender setting. Gender was chosen because it allows a test of the theory using a strict notion of risk specificity.

Experiment 1 was designed to test the basic contention that an increase in identity salience should affect one's perceived vulnerability to identity-specific risks relative to identity-neutral risks. We assessed whether priming males to think about their gender affects their relative perceived vulnerability to prostate cancer in a simple between-subjects design with two conditions. Participants in the gender-prime (vs. control) condition were asked to write two short essays about the influence of their gender (vs. education) on the way they "make decisions" and on the way they "relate to others." A purportedly unrelated second study was then introduced as an investigation of people's vulnerability to accidents, injuries, and diseases. All participants rated the likelihood of a variety of personal risks occurring to them in the future. Participants in the gender-prime condition reported higher risk estimates for prostate cancer than participants in the control condition.

Experiment 2a was designed to replicate the results of Experiment 1 with a different social group. In this study we asked females to think about the role of gender in their life and then assessed their relative perceived vulnerability to breast cancer with a procedure analogous to the one in the first experiment. This time however females in the gender-prime condition rated their risk on breast cancer as lower than females in the control condition.

In Experiment 2 the gender priming procedure therefore had the opposite effect of the one observed with men in Experiment 1.

The goal of Experiment 2b was to replicate the result of Experiment 2a and assess its generality using a different target disease (ovarian cancer) and a behavioral dependent variable (actual donation behavior). Participants in the gender prime condition donated significantly less to ovarian cancer research (42%) than in the control condition (77%).

Experiment 3 was designed to replicate the dissociation between males' and females' responses to gender priming in one population and to extend the generalizability of the results to a different priming procedure. The dissociation between men and women led us to hypothesize that mere activation of a gender schema was not driving the results, but rather participants' specific male or female gender identity. Participants in the *gender-specific prime condition* determined the gender of 16 Dutch words, which unbeknownst to them, were all of their own gender. Participants in the *gender-general prime condition* also determined the gender of 16 Dutch words, 8 of which were of their own gender and 8 of the opposite gender. Words were randomly drawn from a pool of 30 male and 30 female words. Participants in the *abstractness condition* were not primed with gender at all, but instead rated the abstractness of all 60 words in the database. In an allegedly unrelated second study the participants indicated their subjective probability assessments of contracting a gender-specific disease (prostate cancer for males and breast cancer for females), heart attack, diabetes, and hepatitis. Results confirmed the pattern obtained in the earlier experiments. Whereas women's breast cancer risk estimates were lower in the gender-specific prime condition than in both control conditions, men's prostate cancer risk estimates were higher. No differences were observed between both control conditions.

Experiment 4 served primarily as a manipulation check study for the manipulation we used in experiments 1-2. Furthermore, we included measures of a robust gender difference: the degree of relational vs. collective interdependence (Cross & Madson, 1997; Gabriel & Gardner, 1999). Participants were either primed with their gender or not and then

completed gender-identity and interdependence questionnaires in counterbalanced order. The results showed first of all that the gender priming manipulation in the earliest experiments worked as intended. Intriguingly, we also discovered that thinking about interdependence increased gender identity salience as well (independent of the gender prime).

Men typically relate to larger social groups than women, who identify themselves more with a few close relationships (Gabriel & Gardner, 1999). Price (2001; Price, Smith, & Lench, 2006) showed that individuals automatically tend to integrate stimulus numerosity in quantitative judgments about that stimulus (numerosity theory). Since thinking about interdependence increases gender identity salience (experiment 4), we reasoned that manipulating the size of the accessible social group should have a straight influence on gender-specific disease risk estimates. This hypothesis was confirmed in a final experiment.

This research has important practical implications for health campaigns targeting gender-specific diseases. Campaigns aimed at women might have adverse effects.

## REFERENCES

- Cross, S. E., & Madson, L. (1997). Models of the self: Self-construals and gender. *Psychological Bulletin, 122*, 5-37.
- Gabriel, S., & Gardner, W. L. (1999). Are there "his" and "hers" types of interdependence? The implications of gender differences in collective versus relational interdependence for affect, behavior, and cognition. *Journal of Personality and Social Psychology, 77*, 642-655.
- Markus, H., & Kunda, Z. (1986). Stability and malleability of the self-concept. *Journal of Personality and Social Psychology, 51*, 858-866.
- Price, P. C. (2001). A group size effect on personal risk judgments: Implications for unrealistic optimism. *Memory & Cognition, 29*, 578-586.
- Price, P. C., Smith, A. R., & Lench, H. C. (2006). The effect of target group size on risk judgments and comparative optimism: The more, the riskier. *Journal of Personality and Social Psychology, 90*, 382-398.

For further information contact: Steven Sweldens; Ph.D. Student; Department of Marketing Management; Rotterdam School of Management; Room T10-30; Burg. Oudlaan 50; P.O. Box 1738, 3000 DR; Rotterdam; Phone: +31 10 408 8822; Fax: +31 10 408 9011; E-mail: ssweldens@rsm.nl

## The Nonconscious Nature Of Everyday Consumer Behavior

Session Chair: Manoj Thomas, Cornell University  
 Session Discussant: Baba Shiv, Stanford University

### It's a Matter of Focus: Situational and Individual Difference Moderators of Prime-to-Behavior Mechanisms.

S. Christian Wheeler, Stanford University  
 Dirk Smeesters, Tilburg University  
 Aaron C. Kay, University of Waterloo

Although researchers have established a wide range of non-conscious influences on decisions, the mediational paths by which effects operate have received relatively little attention (Bargh, 2006; Wheeler & Petty, 2001). The present paper examines how priming of cooperation-related constructs (e.g., kindness/unkindness, cooperation/competition) affects behavior in various economic decision-making situations.

Many economic decision-making situations are interpersonal - a decision maker must decide whether to make a relatively cooperative or competitive economic decision toward another person. In some cases, primes could affect these economic decisions indirectly by affecting perceptions of the other person (e.g., seeing them as more competitive) and hence one's own behavior (e.g., allocating less to them). In other cases, primes could affect these decisions through more direct routes.

A critical determinant of how primes may affect decisions in these contexts could be the extent to which the decision maker is focused on the other person (Neuberg & Fiske, 1987). We predicted that when other-focus is increased in economic decision-making situations, individuals would form impressions of the other person consistent with accessible constructs and these impressions would mediate their choices. When other focus is low, on the other hand, priming effects should not be mediated by perceptions of the other person.

In our first study, participants were subliminally primed with either unkind-related or neutral concepts. Additionally, they were assigned to a high or low other-focus manipulation adapted from the Davis and Brock (1978) translation task. The dependent variable was participants' proposed division of money between themselves and an interaction partner in an ultimatum game. Results indicated that, in the low other-focus condition, the primes affected level of cooperation, but not impressions of the interaction

partner. In the high other-focus condition, the primes affected both level of cooperation and impressions of the interaction partner. Mediation analyses showed that their allocations were mediated by their perceptions of the interaction partner. Two additional studies replicated and extended these results using high and low other-focus situations (i.e., reciprocal and non-reciprocal dictator games), different primes (i.e., competition and cooperation primes), and an individual difference variable of other focus (i.e., communal orientation, Clark, et al., 1987). This moderated mediation approach provides new and exciting insights into the multiple means through which accessible constructs can guide behavior as well as when each mechanism is likely to be in operation.

For further information contact: S. Christian Wheeler; Stanford Graduate School of Business; 518 Memorial Way; Stanford University; Stanford, CA 94305-5015; Phone: 650-724-7509

### Anchoring in Numerical Judgments: Is it Volitional or Unintended?

Manoj Thomas, Cornell University  
 Vicki Morwitz, New York University

Past research has shown that left-digit anchoring often renders people's judgments of numerical difference inaccurate. For example, the difference between 5.00 and 3.99 is perceived to larger than that between 5.01 and 4.00 because of left digit anchoring, even though the actual numerical difference is the same for both the pairs. It is not clear whether this left-digit anchoring effect is the consequence of a volitional attempt by the decision maker to save cognitive effort or whether it is the result of a nonconscious, involuntary interference in mental processes. Some researchers have suggested that anchoring is a heuristic that people use to optimize their cognitive effort. In contrast, our results suggest that, at least in the context of such numerical judgments, anchoring is an automatic process. Participants are neither aware, nor able to prevent the anchoring effect of left-digits on their numerical judgments.

In the first experiment, we test whether people are aware of left-digit anchoring in judgments of numerical difference. Participants saw 24 pairs of

numbers, one pair at a time, and judged whether the difference between the numbers is small or large on an 11-point scale anchored at “small” and “large.” The pairs of numbers were chosen such that for every pair of number, there was a corresponding pair that had the same holistically computed difference, but larger left-digit difference. Consider the following two pairs of numbers as illustrative examples: (i) Pair A: 6.05 minus 5.00 and (ii) Pair B: 6.00 minus 4.95. Note that for pair A, the left-digit difference (i.e.,  $6 - 5 = 1$ ) and the holistically computed difference (i.e.,  $6.05 - 5.00 = 1.05$ ) rounded to the nearest integer are the same. But for pair B, the left-digit difference ( $6 - 4 = 2$ ) is larger than the holistically computed difference ( $6.00 - 4.95 = 1.05$ ). So, left-digit anchoring will make the judgments inaccurate for pair B, but not for pair A. If participants are making a volitional trade-off between cognitive effort and accuracy, then they will know that their judgments for pair B are less accurate than for that for pair A. In contrast, if left-digit anchoring is caused by some autonomous psychological mechanism that occurs non-consciously, then participants will not be aware that their judgments are relatively less accurate for pair B. To examine whether participants are aware of the inaccuracy caused by left-digit anchoring, immediately after judging the size of the difference between a pair of numbers, they were asked to report the perceived accuracy of each of their judgments on an 11-point scale anchored at “inaccurate” and “accurate.” We found that despite the fact that the holistic differences were identical across the two groups of numbers, the difference was judged to be larger in the “larger left-digit difference” condition than in the “same left-digit difference” condition. But the participants were not aware that their judgments were influenced by the left-digit manipulation. Participants perceived their judgments to be equally accurate across the two left-digit conditions.

In experiments 2 and 3, we find that left-digit anchoring causes a Stroop-like interference when participants are asked to choose the correct answer to a series of multi-digit subtraction problems. In experiment 4, we examine whether awareness and training (warning condition) can help people correct the bias caused by left-digit anchoring.

For further information contact: Manoj Thomas; Assistant Professor of Marketing; S C Johnson Graduate School of Management; Cornell University; 353 Sage Hall; Ithaca NY 14850; Phone: 607-255-7207

### Who's the Boss? Evidence for Nonconscious Reactance

Amy Dalton, Duke University  
Tanya Chartrand, Duke University  
Gavan Fitzsimons, Duke University

Reactance describes the motivation to maintain or acquire freedom when one perceives freedom to be threatened (Brehm, 1966). Although reactance has received much attention by marketing academics, the nonconscious processes influencing this phenomenon have yet to be fully understood. In fact, research that has commented on the role of consciousness in reactance has treated reactance as a consciously mediated response (Brehm, 1989; Kray, Thompson & Galinsky, 2001). In the present research, we borrow theory and methods from the nonconscious goal pursuit literature to study the possibility that reactance might occur automatically, without conscious awareness, intention or control. In light of research suggesting that relationship partners can automatically activate goals (Fitzsimons & Bargh, 2003; Shah, 2003), our experiments examine reactance to relationship partners.

In two studies we tested the hypothesis that significant others who are perceived to be controlling elicit automatic reactance, even when individuals consciously believe they would conform, and even when reactance results in personally suboptimal outcomes. Study 1 evaluated and confirmed the hypothesis that automatic reactance occurs in response to a subliminally primed significant other when a participant perceives the significant other to be highly controlling. Study 2 demonstrated that chronic reactance moderates the effect of a subliminally primed significant other on behavior: low-reactant individuals adopted a goal they associated with the subliminally primed significant other, whereas high-reactant individuals adopted an opposing goal.

Though the triggers of reactance varied from other people (in Experiment 1) to individual differences in reactance (in Experiment 2), the data from both studies suggest that reactance was rooted in the perception of significant others as controlling. Moreover, the results of both studies suggest that reactance was not a result of having a conscious goal to oppose the goals associated with the significant other. Rather, participants instead believed their significant others were strong triggers of the goals. This finding bolsters the claim that reactance in these experiments was nonconsciously mediated. Interestingly, in both studies participants' behavior

was predicted by the significant other who was subliminally primed and by the participants' perception of how controlling this significant other happened to be. The normatively appropriate situational goals appeared to have no effect. Consequently, participants nonconsciously reacted or conformed even when their response resulted in a personally suboptimal outcome.

Taken together, these experiments suggest that it is possible for individuals to reject the goals associated with significant others without a conscious

intention to do so, and go on to nonconsciously engage in oppositional goal pursuits. We found that reactance can occur automatically in response to controlling significant others and among chronically reactant individuals. In both cases, automatic reactance was the result of perceiving a significant other to be controlling.

For further information contact: Amy Dalton; Duke University: The Fuqua School of Business; Box 90120; Durham, NC 27708-0120 USA; Phone: 919-660-7648.

**Culture And Mental Representations Of Power:  
Implications For Consumers' Information-Processing Strategies, Judgments, And Influence Attempts**

Carlos J. Torelli, University of Illinois at Urbana – Champaign

**ABSTRACT**

In this research, I show that cultural knowledge includes mental representations of power goals and that people with different cultural orientations activate different power goals when having the capacity to impact others. Individuals from cultures that emphasize power-related themes have strong mental associations between power and goal-mean structures that are normative for exercising power. These associations determine the types of consumer contexts that make power salient as well as the types of goals one subsequently brings to mind in these contexts. In turn, these goals are instrumental in the regulation of behavior by directing individual's resources toward goal achievement (Bargh & Barndollar, 1996; Shah, Kruglanski, & Friedman, 2003). I focus on the distinct associations with power among individuals with different cultural orientations and on the consequences of activating power-related goals on consumers' information-processing strategies.

**Cultural Knowledge and Mental Representations of Power-Goals**

In the present research, social power is defined broadly as the *capacity* of an actor to produce *intended* effects on the behaviors and emotions of others (Winter, 1973). This conceptualization of power includes both the desire to reach a specific state (i.e., motive-goals) and the resources or actions that one would use to get to that state (i.e., opportunities-means). Having power brings to mind goals-means knowledge structures that can be instrumental in the regulation of behavior (see Bargh, Raymond, Pryor, & Strack, 1995). I focus on notions of personalized power for signaling high-status to others and notions of socialized power for benefiting others (McClelland, 1973). Furthermore, I hypothesize that the distinction in the study of culture between *vertical* (V) and *horizontal* (H) cultural orientations (Triandis & Gelfand, 1998) relates directly to individual's beliefs and values associated with power. An extensive review of the cross-culture literature suggests that culturally nurtured views of the self can be used to predict the goals cognitively associated with power. Vertical individualists associate power with self-focused goals of acquiring status and with instances in which these goals can be achieved. In contrast, horizontal collectivists associate power with goals of caring for the well-

being of others and with instances in which these goals can be achieved.

**Consequences of Activating Power-Goals on Information Processing Strategies**

The goals that people bring to mind when power is made salient can determine their information processing strategies. Work by Fiske and colleagues suggests that having power to control other's outcomes leads to the use of low-effort impression formation strategies (Fiske, 1993, 2001; Goodwin, Gubin, Fiske, & Yzerbyt, 2000). Powerholders are not motivated to form accurate impressions about others and don't attend to individuating information (Goodwin et al., 2000). Fiske and colleagues argue that these cognitive predilections are driven by a focus on self-centered goals that save time and energy and that help people to maintain their status and to control their social interactions. These self-focused goals lead to selective attention to the easier to process stereotype-consistent information that helps to confirm prior expectations about others. However, Goodwin et al. (2000) suggest that powerholders who activate goals of being responsible for the well-being of others are motivated to form accurate impressions about these others and to attend to individuating information. They found that powerholders primed with responsibility values attended more to individuating, stereotype-inconsistent information than powerholders who did not feel responsible. Other-related goals of using power responsibly led to more elaboration about stereotype-inconsistent information in an effort to form a more accurate impression about others (see also Moskowitz, Gollwitzer, Wasel, & Schaal, 1999).

Integrating the previous discussions the following hypotheses are derived:

- H1:** Vertical Individualism and Horizontal Collectivism are associated with mental representations of personalized and socialized power respectively.
- H2:** Consumer contexts in which one can achieve a higher status (help others) make power salient among individuals with a vertical individualistic (horizontal collectivistic) orientation.

**H3:** When given power:

- a. Vertical Individualists activate status-seeking goals
- b. Horizontal Collectivists activate goals of helping others

**H4:** When given power:

- a. Vertical Individualists engage in stereotyping strategies when processing product information.
- b. Horizontal Collectivists engage in individuating strategies when processing product information.

### Methodology

The empirical plan was divided into two Blocks of studies in order to provide support for the two broad-level phenomena studied in this research. The first Block of studies tested the hypotheses that a VI orientation is associated with mental representations of goal-means structures to express personalized power, whereas an HC orientation is associated with mental representations of goal-means structures to express socialized power. Multiple measures to capture people's mental representations of personalized and socialized power and alternative operationalizations of culture (e.g., cultural orientation and membership in cultural groups) were used in order to provide converging evidence for distinct mental representations of power goals associated with cultural knowledge.

The second Block of studies tested the hypotheses that status-related cues activate self-focused goals of achieving status among individuals with a VI orientation, whereas helping-related cues activate goals of caring for the well-being of others among individuals with an HC orientation. The activation of

self-focused goals among VI individuals leads to stereotyping information-processing strategies. In contrast, the activation of other-related goals among HC individuals leads to individuating information-processing strategies. Power was primed by having participants read status-enhancing and nurturing product messages, and by having them recall power-related situations.

### Conclusions and Implications

Results from this research supported the notion that individuals with a VI orientation have strong mental representations of goal-means structures to express personalized power, whereas individuals with an HC orientation have strong representations of goal-means structures to express socialized power. Vertical individualists activate power goals when processing information about products that enhance one's status, whereas horizontal collectivists activate power goals when reading about products that facilitate helping others. Activation of these power goals leads to the use of stereotyping strategies by vertical individualists and to the use of individuating strategies by horizontal collectivists when processing product information. The consequences of activating power-related goals will extend beyond the strategies used by consumers to process product information. I discuss the implications from this research in broader domains of consumer behavior including persuasion and word-of-mouth communication.

For further information contact: Carlos J. Torelli, PhD Candidate, College of Business, University of Illinois at Urbana-Champaign, 339 Wohlers Hall, 1206 South Sixth Street, Champaign, IL 61820. Tel: (217) 384-7764. Email:(ctorelli@uiuc.edu).



## Cross Cultural and Intergenerational Differences in the Brand Personality Construct

Lerzan Aksoy, Koç University, Istanbul – Turkey  
Ayşegül Özsoy, Koç University, Istanbul - Turkey

### ABSTRACT

The measurement of brand personality has gained popularity in consumer behavior research. Brand personality is referred to as “the set of human characteristics associated with a brand”). Brand personality in the USA can be defined in terms of 5 dimensions: sincerity, excitement, competence, sophistication and ruggedness (Aaker 1997). This scale was validated in 3 other countries; Japan, Spain, and Korea (Aaker, Benet-Martinez and Garolera, 2001, Sung and Tinkham 2005, Supphellen and Gronhaug 2003). While some of the dimensions were common across the four countries, there were some culture specific traits that emerged. No research has been conducted to develop a systematically reliable, valid, and generalizable scale to measure brand personality in Turkey.

In the Turkish context, major personality research studies relevant to the culture have been conducted by Gülgöz (2002), Somer (1998), and Goldberg and Somer (2000). Goldberg and Somer collected personality-related adjectives from three modern Turkish dictionaries. All three studies focus on the applicability of the “five factor model” in the Turkish context. Results demonstrate that while the 5 factor model is applicable in Turkey, there are some discrepancies. Hence, in this research, we use the pool of personality adjectives identified by Somer (1998) and Goldberg and Somer (2000) and complement this pool with adjectives generated through focus groups to better reflect adjectives used to describe brand personality traits in Turkish.

Another objective is to understand intergenerational differences in the definition of brand personality. Moore, Wilkie and Lutz (2002) report two studies that show intergenerational impacts on brand equity to be persistent and powerful across an array of consumer packaged goods. They find that, “intergenerational influences are a real marketplace phenomenon and a factor that merits much closer attention from marketing strategists who are interested in brand equity issues”. The definition of brand personality could transfer over exactly or vary across generations.

### METHODOLOGY

A methodology similar to Aaker (1997) was used in preparing and conducting the survey instrument. Initially, a pretest with 40 students to test a scale

measuring the degree to which 20 product categories are described as symbolic (emotional) or utilitarian (functional) or both was conducted. Next, surveys with 80 individuals via mall intercepts were conducted to determine the product categories to be used in the brand personality survey. Then, 10 individuals were recruited for a 1.5-2 hour discussion and probing session to generate a list of additional personality trait adjectives. To reduce the large number of traits, a survey with 30-40 individuals was conducted where participants rated more than 250 traits on the ability to describe a brand in general. Eighty-one traits that met the minimum rating threshold of 5.70 (out of 7) were included in the survey.

Results of a brand awareness study conducted by AC Nielsen were used to generate a list of the most important/salient local and global brands in Turkey. Next, these brands were matched up with the product categories determined in the stages described earlier. The resultant list involves 81 personality trait descriptors for 20 product categories and 41 local and global brands. The brands were divided into 5 brand clusters.

A market research firm administered the survey with 600 Turkish households (300 with mother-daughter dyads and the rest with father-son dyads) resulting in 1200 completed surveys. Random ordering was implemented to eliminate order bias. Members of the dyad rated the same set of 9 brands each.

### RESULTS

The sample mean age was 34 (range 14 – 68). Females were 54%, the majority were high school (54.4%) and college graduates (21.7%). The socio-economic breakdown of the sample consisted of A (12.9%), B (24%) and C1 (62%) groups.

An exploratory factor analysis was conducted. Results indicated a 4-factor solution. Items that cross-loaded were deleted from the final pool and the resultant clean loadings interpreted within the context of the findings. The factors were labeled as: 1) Competence, 2) Excitement, 3) Traditionalism/Conservativeness and 4) Rebelliousness. While the factors of competence and excitement were directly parallel to Aaker’s (1997) findings, traditionalism

and rebelliousness were specific to the Turkish context.

The total sample mean ratings (likert scale 1-5 where 1 = does not describe this brand at all, 5 = describes this brand very well) is 3.84 for competence, 3.5 for excitement, 3.2 for traditionalism and 2.8 for rebelliousness. Participants found the competence dimension to be the most and rebelliousness dimension to be the least descriptive for the 41 brands. A sub-sample analysis to discover gender and intergenerational differences in terms of mean brand personality dimension ratings revealed some differences from each other.

ANOVA tests were conducted to assess the significance of the differences between groups. The 2-group difference test between males (mean = 2.83) and females (mean = 2.77) revealed significant differences for rebelliousness only ( $F(1, 10,404) = 11.79, p = 0.01$ ). All three other dimensions were not significantly different at the 0.05 level. Contrasting the older (mother and fathers pooled) and younger (sons and daughters pooled) generations, significant differences between older (mean = 3.82) and (younger = 3.87) generations emerged for competence ( $F(1,10407) = 4.52, p = 0.03$ ) and also between older (mean = 3.47) and younger (mean = 3.54) individuals for excitement ( $F(1, 10,405) = 10.26, p = 0.01$ ). All other differences were not significant.

#### CONCLUSIONS AND MANAGERIAL IMPLICATIONS

This research contributes to our theoretical understanding of brand personality. While there are cultural differences in the definition of brand personality, some factors remain relatively robust across different generations and genders. The common dimensions are competence and excitement and those unique to the Turkish culture are traditionalism and rebelliousness. The competence dimension is rated as most descriptive of the 41 brands followed by excitement, traditionalism and rebelliousness. The analyses between intergenerational groups revealed significant differences where the younger generation rated brands higher on competence and excitement and

males tended to perceive brands as more rebellious than females.

By developing a valid and reliable measurement scale to measure brand personality dimensions, the results have potential managerial benefits for brand/product managers, marketing research companies in brand personality measurement and global brand managers.

Acknowledgement: This research has been conducted with the support of a Turkish National Science Foundation (TÜBİTAK) Grant.

#### REFERENCES

- Aaker, Jennifer L. (1997), "Dimensions of Brand Personality", *Journal of Marketing Research*, Vol. 34, August, 347-356.
- Aaker, Jennifer L., Benet-Martinez, Veronica and Garolera, Jordi (2001), "Consumption Symbols as Carriers of Culture: A Study of Japanese and Spanish Brand Personality Constructs", *Journal of Personality and Social Psychology*, Vol. 81, No. 3, 492-508.
- Goldberg, Lewis R. and Oya Somer (2000), "The Hierarchical Structure of Common Turkish Person-Descriptive Adjectives," *European Journal of Personality*, Vol. 14, 497-531.
- Gülgöz, Sami (2002), *Five Factor Model and NEO-PI-R in Turkey in The Five Factor Model Across Cultures*, Editors: R.R. McCrae & J. Allik, Kluwer Academic/Plenum Publishers, USA.
- Moore, Elizabeth, William Wilkie and Richard J. Lutz (2002), "Passing the Torch: Intergenerational Influences as a Source of Brand Equity," *Journal of Marketing*, Vol. 66, Iss. 2, p. 17.
- Somer, Oya (1998), "Turkce'de Kisilik Ozelligi Tanimlayan Sifatlarin Yapisi ve Bes Faktor Modeli", *Turk Psikoloji Dergisi*, 13(42), 17-32.
- Sung, Yongjun and Spencer F. Tinkham (2005), "Brand Personality Structures in the United States and Korea: Common and Culture-Specific Factors," Vol. 15, Iss. 4, p. 334-350
- Supphellen, Magne and Kjell Gronhaug (2003), "Building foreign brand personalities in Russia: The moderating effect of consumer ethnocentrism" *International Journal of Advertising*, Vol. 22, Iss. 2, p. 203

## The Impact Of Culture On Persuasiveness Of Health Messages On Self And Others

Sukki Yoon, Cleveland State University

Ashok K. Lalwani, University of Texas at San Antonio

Patrick Vargas, University of Illinois at Urbana-Champaign

Yung Kyun Choi, Dongguk University

Hyun Soon Park, Sungkyunkwan University

### ABSTRACT

A wealth of previous research demonstrates that people often perceive themselves to be different from others in many aspects (e.g., Perloff, 1993). This perceived discrepancy between self and others may be culturally universal, but the direction of the discrepancy appears to be culture-specific, sometimes opposite between Easterners and Westerners. In general, Eastern collectivists' self-views are negatively biased, whereas Western individualists' self-views are positively biased (e.g., Heine 2005; Heine, Lehman, Markus, & Kitayama 1999; Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997; for opposing views see Sedikides, Gaertner, & Vevea, 2005; Sedikides, Toguchi, & Gaertner, 2003). In this paper, we contend that this cross-cultural difference in self-other discrepancy can manifest itself in health consciousness, a variable that has not been investigated elsewhere.

### Positive versus Negative Self-Views

Do collectivists self-enhance as do individualists? Recent debate in the field of cross-cultural psychology sheds some light on the significance of the topic, yet offers rather contrasting views. One view is that, regardless of one's cultural background, individuals share a universal tendency to view themselves positively (e.g., Sedikides et al., 2005; Sedikides, et al., 2003). According to Sedikides et al. (2003), both Easterners and Westerners self-enhance but along strategically different dimensions: self-enhancement among Western individualists is pronounced more on individualistic attributes such as freedom and independence (i.e., culturally relevant dimensions), whereas self-enhancement among Easterners is pronounced more on collectivistic attributes such as loyalty and patience.

However, some researchers have argued otherwise, maintaining that self-enhancement is a culture-specific phenomenon (e.g., Heine 2005; Heine et al., 1999; Kitayama et al., 1997). For example, Kitayama et al. (1997) contended that unlike Western individualists, Eastern collectivists tend to self-criticize rather than self-enhance. According to Kitayama et al. (1997), such cross-cultural differences in self-perception are rooted, at least partly, in their functional utility in each culture.

Being self-critical perhaps brings social benefits to individuals in collectivistic societies, yet being self-enhancing brings autonomous benefits to individuals in individualistic societies (see Lalwani, Shavitt, & Johnson, 2006, for a related point). Consistent with this speculation, Kitayama et al. (1997) found that among U.S. participants success has more influence on self-esteem than failure situations, but the opposite is true for Japanese participants. Along similar lines, Japanese tend to accept their failures more readily than their successes in social comparison (e.g., Takata, 1987), and to be more pessimistic than Canadians in their predictions for positive and negative life events (Hiene & Lehman, 1995). Chang and Asakawa (2005) correspondingly found that European Americans compared with Japanese were more likely to predict positive events, yet less likely to predict negative events, to occur to oneself than to a sibling. Westerners' self-views tend to be positively biased (i.e., optimistic bias), but Easterners' self-views tend to be negatively biased (i.e., pessimistic bias), supporting the notion that collectivists are prone to self-criticism, whereas individualists are prone to self-enhancement.

**H1:** Collectivists will perceive themselves to be less health conscious than close others, and close others to be less health conscious than distant others, whereas individualists will perceive themselves to be more health conscious than close others, and close others to be more health conscious than distant others.

**H2:** Collectivists would perceive health campaign messages to be less influential on themselves than close others, and less influential on close others than distant others, whereas individualists would perceive the same messages to be more influential on themselves than close others, and more influential on close others than distant others.

### Study 1

Using three different measures of culture, the results of Study 1 provide robust support for H1. Participants from the U.S., Caucasians, and highly individualistic persons perceived themselves to be more health conscious than close and distant others,

whereas if anything, the opposite was true for participants from Korea, Easterners, and those scoring low on individualism. In the next study, we examine the implications of these differences on the differential efficacy of health related ads (H2).

### Study 2

As predicted in H2, the findings support our contention that collectivists and individualists differ on their perception of the self and others. That is, when compared to close others, among Koreans, in-group members (i.e., family and friends) are perceived to be more likely to accept the health-related messages than out-group members (i.e., the general public), but among Americans, this pattern was reversed. This culturally biased self-other ad effect was apparent on three different measures: cognitive attitudes, affective attitudes, and behavioral intention. Collectivists think and feel that health messages have a greater impact than others compared to themselves, yet individualists may think and feel the opposite.

### Discussion

Although some researchers contend that self-enhancement is a universal phenomenon, recent findings point to the contrary. Notably, the evidence suggests that self-enhancement is restricted to individualistic cultures. Among collectivists, a tendency towards self-critical behavior has been observed (Heine et al., 1999; Heine & Lehman, 1995).

In the present article, we sought to examine the implications of these disparate tendencies on the persuasiveness of health messages. We hypothesized that because individualism is associated with optimism, self-esteem, perceived control, and a general sense of capability (e.g., Diener, Diener, & Diener, 1995; Heine & Lehman, 1999), Americans would perceive themselves as more health conscious than others. Furthermore, they would also believe that they are more influenced than others by messages promoting healthy behavior. In contrast, because collectivism is associated with self-effacement, self-depreciation, and self-criticism (Kitayama et al., 1997), we proposed that Koreans will perceive themselves as less health conscious than others, and will also report being less influenced than others by messages promoting health behaviors.

The two studies provided robust support for the predictions. Study 1 showed that collectivists reported being less health conscious than close and distant others, whereas individualists reported the opposite. Study 2 replicated these findings in a health

communication context, demonstrating that collectivists believed the positive effects of health messages to be greater on close and distant others than themselves, whereas individualists believed the positive effects would accrue to them more than to close and distant others. The results were replicated across all three measures of persuasion. These findings add to a growing body of knowledge that demonstrates systematic and contradictory self-other perceptions among collectivists and individualists.

### REFERENCES

- Chang, E. C. & Asakawa, K. (2003). Cultural variations on optimistic and pessimistic bias for self versus a sibling: Is there evidence for self-enhancement in the West and for self-criticism in the East when the referent group is specified? *Journal of Personality and Social Psychology, 84*, 569-581.
- Diener, E., Diener, M., & Diener, C. (1995). Factors predicting the subjective well-being of nations. *Journal of Personality and Social Psychology, 69*, 851-64.
- Heine, S. J. (2005). Where is the evidence for pancultural self-enhancement? A reply to Sedikides, Gaertner, and Toguchi (2003). *Journal of Personality and Social Psychology, 89*, 531-538.
- Heine, S. J. & Lehman, D. R. (1995). Cultural variation in unrealistic optimism: Does the West feel more invulnerable than the East? *Journal of Personality and Social Psychology, 72*, 1268-1283.
- Heine, S. J. & Lehman, D. R., Markus, H. R., & Kitayama, S. (1999). Is there a universal need for positive self-regard? *Psychological Review, 106*, 766-794.
- Kitayama, S., Markus, H. R., Matsumoto, H., & Norasakkunkit, V. (1997). Individual and collective processes in the construction of the self: Self-enhancement in the United States and self-criticism in Japan. *Journal of Personality and Social Psychology, 72*, 1245-1267.
- Lalwani, A., K., Shavitt, S., & Johnson, T. (2006). What is the relation between cultural orientation and socially desirable responding? *Journal of Personality and Social Psychology, 90*, 165-78.
- Perloff, R. M. (1993). Third-person effect research, 1983-1992: A review and synthesis. *International Journal of Public Opinion Research, 5*, 167-84.
- Sedikides, C., Gaertner, L., & Toguchi, Y. (2003). Pancultural self-enhancement. *Journal of Personality and Social Psychology, 84*, 60-79.
- Sedikides, C., Gaertner, L., & Vevea, J. L. (2005). Pancultural self-enhancement reloaded: A meta-

analytic reply to Heine. *Journal of Personality and Social Psychology*, 89, 539-551.

Takata, T. (1987). Self-depreciative tendencies in self-evaluation through social comparison.

*Japanese Journal of Experimental Social Psychology*, 27, 27-36.

For further information contact: Sukki Yoon, 2121 Euclid Ave. MU 221, Cleveland, OH 4415

## A Little Something For Me And Maybe For You, Too: Promotions That Relieve Guilt

Sooyeon Nikki Lee-Wingate, Rutgers University  
Kim P. Corfman, New York University

### ABSTRACT

Despite the amount of luxury consumption in our society, the notion that consumption for utilitarian purposes is virtuous, while unnecessary consumption is a vice, influences our behavior and our feelings about it. Anticipated guilt discourages consumers from purchasing hedonic goods, luxuries, and other products and services that might be viewed as unnecessarily self-indulgent (e.g., Lascu 1991; Prelec and Herrnstein 1991; Strahilevitz and Myers 1998; Thaler 1980; Kivetz and Simonson 2002a, b; Okada 2005). We argue that consumption guilt results from two values-based forces. The first is intrapersonal and derives from the desire to consume virtuously. The other is interpersonal and comes from the desire to consume fairly or equitably. We show how carefully designed gift-with-purchase promotions can reduce the guilt associated with hedonic consumption by managing these two forces. Our research provides a theoretical framework for the examination of consumption guilt, using both the intrapersonal and intrapersonal balances consumers attempt to achieve.

Consumers have several options for dealing with the anticipated guilt they face when contemplating a hedonic purchase. Consumers can: a) Make the purchase and live with the guilt, b) Decide not to make purchase (Greenleaf and Lehmann 1995; Luce 1998), c) Earn it, based on effort or endurance (Kivetz and Simonson 2002a), d) Redefine the purchase as a necessity or identify utilitarian value in it (e.g., buying this very expensive briefcase will make a better impression on my clients); and e) Deserve it, based on comparison to others (e.g., I bought my brother those great tickets, I should be able to go to a game). Marketers try to help consumers make these guilt-reducing arguments, by using “you deserve it” copy in advertising, for example.

We focus on another approach – gift with purchase – to help consumers justify the hedonic purchase. This justification takes three forms – greater value, greater specific utility, and generosity. The first justification is common to all gift-with-purchase contexts. As long as the gift is perceived as providing some kind of utility, the consumer is getting more for the same expenditure (Simonson, Carmon, and O’Curry 1994).

**H1:** The presence of a free gift with purchase reduces the anticipated guilt associated with the hedonic purchase for the purchaser’s own consumption.

The second kind of justification uses the “redefine” approach described above in d). This attempts to balance the intrapersonal scale of hedonic vs. utilitarian consumption. If the gift with purchase is utilitarian (e.g., an umbrella, free with a cologne purchase), the utilitarian justification for the purchase arises that balances the hedonic consumption, and this reduces anticipated guilt. However, if the gift is also hedonic (e.g., free bath salts with a purchase of perfume) the value of the purchase rises, but the intrapersonal scale becomes imbalanced. Thus,

**H2:** When a hedonic purchase for oneself is accompanied by a free gift also intended for the purchaser, guilt is reduced more when the gift is utilitarian than hedonic.

As suggested by alternative e), a common source of guilt is the feeling that one is over-rewarded when compared to others (e.g., Walster, Berscheid, and Walster 1976; Homans 1961, Messé and Watts 1983). Such guilt can be relieved by adjusting one’s own input (e.g., working harder to deserve the greater reward), psychologically distorting the situation (e.g., assessing one’s work as more valuable than that of others), or bringing someone else into the perceptual equation to balance the interpersonal allocation scale. Strahilevitz and Myers (1998) found that consumers relieve guilt using a variation of the third approach – offsetting their own hedonic consumption by giving money to other people (charity donations) – and others have found that individuals experiencing guilt are more likely to engage in charitable behaviors (e.g., Baumann, Cialdini, and Kendrick 1981). While the guilt associated with a hedonic purchase may not originate from consideration of others, introducing others into the equation can lighten the load of indulging oneself. We propose that gifts explicitly intended for someone else, further reduce the guilt associated with the hedonic purchase intended for the purchaser’s own consumption, especially if the gift is hedonic. The more closely matched the indulgences (i.e., the one purchased for oneself and the one that will be given to someone else), the closer the comparison, and the more effective the guilt reduction.

**H3:** When a hedonic purchase for oneself is accompanied by a gift intended for someone else, guilt is reduced more when the gift is hedonic than when it is utilitarian.

We tested these hypotheses in two experiments. Throughout the studies, we showed that gifts indeed reduce the guilt anticipated with such hedonic purchases for oneself, and that this reduction was further decomposed into a significant interaction between the nature and the intended user of the included gifts, rather than uniform magnitude of guilt reduction across all free-gift conditions due to getting extra value. Specifically, we witnessed low levels of guilt with hedonic gifts when the gifts were for someone else; and with utilitarian gifts when the gifts were for the purchasers themselves. This interaction strongly supported our framework based on the intrapersonal and interpersonal formulations of guilt. Only by simultaneously considering both, efficient reduction of anticipated guilt becomes possible and leads to favorable evaluations.

Though past research in marketing promotions examined this topic of gift-with-purchase promotion also known as free gift promotion (e.g., Chandran and Morwitz 2006; Darke and Chung 2005; Chandon, Wansink, and Laurent 2000; Raghbir 2004; Simonson, Carmon, and O'Curry 1994), a theoretical investigation on how to design free gift promotion, especially for hedonic consumption, have been scarce. However, there are many examples of gift with purchase promotions used in the industry that (albeit unknowingly) utilize our theory. Filling this void, this research provides theoretical guidelines with respect to the design, targeting, and promotion of gifts, specifically in instances where consumers would anticipate guilt regarding a hedonic purchase.

#### REFERENCES

- Baumann, Donald J., Robert B. Cialdini, and Douglas T. Kendrick (1981), "Altruism as Hedonism: Helping and Self-Gratifications as Equivalent Responses," *Journal of Personality and Social Psychology*, 40 (June), 1039-46.
- Chandon, Pierre, Brian Wansink, and Giles Laurent (2000), "A Benefit Congruency Framework of Sales Promotion Effectiveness," *Journal of Marketing*, 64 (October), 65-81.
- Chandran, Sucharita and Vicki G. Morwitz (2006), "The Price of "Free"-dom: Consumer Sensitivity to Promotions with Negative Contextual Influences," *Journal of Consumer Research*, (December), forthcoming.
- Darke, Peter and Cindy M. Y. Chung (2005), "Effects of Pricing and Promotion on Consumer Perceptions: It Depends on How You Frame It," *Journal of Retailing*, 81(1), 35-47.
- Greenleaf, Eric A. and Donald R. Lehmann (1995), "Reasons for Substantial Delay in Consumer Decision Making," *Journal of Consumer Research*, 22 (September), 186-99.
- Homans, George C. (1961), *Social Behavior: Its Elementary Forms*, New York: Hartcourt, Brace, & World.
- Kivetz, Ran and Itamar Simonson (2002), "Self Control for the Righteous: Toward a Theory of Pre-commitment to Indulgence," *Journal of Consumer Research*, 29 (September), 199-217.
- and ---- (2002b), "Earning the Right to Indulge: Effort as a Determinant of Customer Preferences Toward Frequency Program Rewards," *Journal of Marketing Research*, 39(May), 155-170.
- Lascu, Dana-Nicoleta (1991), "Consumer Guilt: Examining the Potential of a New Marketing Construct," in *Advances in Consumer Research*, Vol. 18, Rebecca Holman and Michael Solomon, eds. Provo, UT: Association for Consumer Research, 290-93.
- Luce, Mary Frances (1998), "Choosing to Avoid: Coping with Negatively Emotion-Laden Consumer Decisions," *Journal of Consumer Research*, 24(March), 409-33.
- Messé, Lawrence A. and Barbara L. Watts (1983), "Complex Nature of the Sense of Fairness: Internal Standards and Social Comparison as Bases for Reward Evaluations," *Journal of Personality and Social Psychology*, 45, 84-93.
- Okada, Erica Mina (2005), "Justification Effects on Consumer Choice of Hedonic and Utilitarian Goods," *Journal of Marketing Research*, 42(February), 43-53.
- Prelec, Drazen and Richard J. Herrnstein (1991), "Preferences or Principles: Alternative Guidelines for Choice," in *Strategy and Choice*, Richard J. Zeckhauser, ed. Cambridge, MA: MIT Press, 319-40.
- Raghbir, Priya (2004), "Free Gift with Purchase: Promoting or Discounting the Brand?" *Journal of Consumer Psychology*, 14(1&2), 181-186.
- Simonson, Itamar, Ziv Carmon and Suzanne O'Curry (1994), "Experimental Evidence on the Negative Effect of Product Features and Sales Promotions on Brand Choice," *Marketing Science*, 13(1), 23-39.
- Strahilevitz, Michal and John G. Myers (1998), "Donations to Charity as Purchase Incentives: How Well They Work May Depend on What You Are Trying to Sell," *Journal of Consumer Research*, 24 (March), 434-45.

Thaler, Richard (1980), "Toward a Positive Theory of Consumer Choice," *Journal of Economic Behavior and Organization*, 1, 39-60.

Walster, Elaine H., Ellen Berscheid, and G. William Walster (1973), "New Directions in Equity Research," *Journal of Personality and Social Psychology*, 25 (February), 151-176.

For further information contact: Dr. Sooyeon Nikki Lee-Wingate, Ph.D., Assistant Professor of Marketing, Rutgers Business School, Rutgers University, Ackerson Hall, Suite 300E, 180 University Avenue, Newark, NJ 07102-1897, [NikkiLee@business.rutgers.edu](mailto:NikkiLee@business.rutgers.edu)



## The Impact Of Sales Promotions On Children's Purchase Decisions

Wendy Attaya Boland, University of Arizona  
Lance-Michael Erickson, University of Arizona

### ABSTRACT

A growing body of evidence suggests that children, at a very young age, understand the sequence of events involved in a shopping trip (Berti and Bombi 1998, Peracchio 1992, Karsten 1996). Children frequently accompany their parents to retail stores and amass a good deal of knowledge about aspects of shopping such as store layouts, product offerings, and exchanging money for goods (McNeal 1992). One particular aspect of the shopping experience that is not well understood is how sale cues impact children's purchase decisions. Retailers communicate sales to customers in a variety of ways, including purely semantic cues such as "clearance" or in ways that indicate the amount of the price reduction such as "take 30% off." The aim of this paper is to broaden our understanding of how children make purchase decisions when sale cues are present. Explicitly, we propose that children recognize sale cues as a reduction in price and that this conceptualization is used as an input to their decision making. However, we also propose that the manner in which a sale is communicated affects their understanding and may lead some children to make economically sub-optimal decisions.

Our first two studies were designed to demonstrate that children understand that sales lower the regular price of items. Here, we hypothesize that the manner in which a sale is communicated will have differential effects on children's estimates of dependent variables such as the absolute price of the item, the relative prices of items, the likelihood that the child will purchase it, and the likelihood that they could convince a parent to purchase it. Since we expect to see differences across age groups, our sample includes both second and fifth grade children.

Study 1 was a between-subject design where we manipulated the description of a sale using four verbal cues: "sale," "clearance," "save," and "special". Although we expected younger children to be less accurate than the older children, we have no evidence of a difference between the groups. But, when analyzing the responses by word condition, we find an association between the term used and accuracy. The results indicate that the term "special" resulted in significantly less accuracy than any of the other three terms ("sale," "save," "clearance"), supporting our prediction that the framing of the communication of the sale can impact children's

understanding. Analysis of the open-ended responses indicated that many children felt the term "special" applied to extra properties of that product, not a reduction in its price.

In the second study we explored the effects of two numeric cues to denote sales: a dollar-off cue (e.g. "take \$2 off") and a percentage-off cue (e.g. "take 10% off). Unlike the first study, here we find a significant association between age and ability to identify the least expensive item in both the dollar-off and percent-off conditions, with younger children less accurate than older children. In the dollar-off condition we find a significant association between age and accuracy of estimates of the final sale prices of the item. Moreover, we find that nearly all the errors were conceptual in nature, with children using the dollar-off cue as the new price of the item. We conducted a similar analysis of the percent-off condition and again find a significant association of age and accuracy. Explicitly, none of the second graders were able to derive the correct new price of the item at either store, whereas 50% of the fifth graders were able to compute the sale price correctly. Further analysis shows that while the second grade errors were again almost entirely conceptual in nature, the fifth grade errors were more computational—these children understood how to arrive at the final sale price but were unable to perform the mathematical operation correctly.

The results of studies 1 and 2 provide support that older children are able to conceptualize and react to sale cues. Thus, study 3 looks solely at younger children and their use of sale cues when making a purchase decision. In this study, we simulate a purchase situation to determine the impact that a sale cue has on younger children's purchase decisions. Study 3 was a 2 (sale vs. no-sale) by 2 (first vs. third grade) between-subjects design. Participants in the study were given fifty cents and told that they could make a purchase from three available items (magnet, pencil, and eraser). A pretest determined the most preferred item was the eraser (which was confirmed in the no-sale condition), so the other two items were placed on sale for participants in the sale condition. Our results demonstrate a significant increase in the choice share of the two non-target items in the sale condition. Furthermore, analysis of open-ended questions supports the notion that children were considering the sale and how much money remained

in making their decisions. A very common consideration was whether or not the sale would allow enough remaining money for a second item to be purchased.

Since the question of quantity (“can I get two?”) occurred so often, study 4 was designed to test whether framing a promotion in terms of a quantity discount would lead children to make a sub-optimal decision. Specifically, we expect that a “Buy One, Get One Free” sale will be preferred to a “60% off” sale because of the perceived complexity associated with conceptualizing a sale in terms of percentages. Primary results indicate strong support for this hypothesis, with 14 out of 16 participants selecting the BOGO option and 9 of those 14 remaining with the BOGO option even after 60% off was calculated for them by the experimenter.

Our research demonstrates that while children seem to understand the concept that a sale reduces the regular price of a product, their understanding is susceptible to the manner in which the sale is communicated. Furthermore, we show that children’s purchase decisions are influenced by the presence of a sale, and that they favor conceptually

easier sale promotions even when economically sub-optimal decisions result.

#### REFERENCES

- Berti, Anna, and Anna Bombi (1988), *The Child's Construction of Economics*, New York: Cambridge University Press.
- Karsten, Yvonne Marie Cariveau (1996), “A Dynamic Systems Approach to the Development of Consumer Knowledge: Children’s Understanding of Monetary Knowledge,” unpublished dissertation, Department of Marketing and Logistics Management, University of Minnesota, Minneapolis, 55455.
- McNeal, James U. (1992), *Kids as Customers*, New York: Lexington Books.
- Peracchio, Laura A. (1992), “How Do Young Children Learn to Be Consumers? A Script-Processing Approach,” *Journal of Consumer Research*, 18 (March), 425-440.

For further information contact: Wendy Boland (wboland@email.arizona.edu), Department of Marketing, Eller College of Management, University of Arizona, Tucson AZ 85721.

## The Role Of Narrative Immersion And Perceived Self-Protagonist Similarity In Cognitive And Affective Responses To Product Placements

Namita Bhatnagar, University of Manitoba  
Fang Wan, University of Manitoba

### ABSTRACT

It has been argued that consumers are receptive to information structured as narratives because it mimics the manner in which a lot of day-to-day information is encountered and stored within memory (Adaval and Wyer 1998). In this paper, we examine the role of narrative immersion and perceived self-protagonist similarity within a contemporary form of marketing narratives—specifically, product placements or paid brand inclusions within media content where sponsor identities are kept hidden (Balasubramanian 1994).

Instances of product placements in popular entertainment are numerous—e.g., Reese’s Pieces candies in the movie *E.T.—The Extraterrestrial*, the Bulgari jewelry brand in author Fay Weldon’s book *The Bulgari Connection*, and Saab cars in the TV sitcom *Seinfeld*. Research in the field of communications, and more recently marketing, has primarily contrasted placements with conventional advertising within visual media (e.g., movies, TV sitcoms), and examines issues such as extent of fit with the context, placement modality (e.g., visual versus auditory, forefront versus background), and the impact on brand memory and attitudes. Less is known about product placements in non-visual media such as music, magazine articles, and books. At the same time, there is a substantial body of work on the processing of narratives or “stories” with causal and time related sequences of events in fields such as marketing (Adaval and Wyer 1998, Escalas, Moore and Britton 2004), communications (Escalas 2004), and psychology (Singer and Bluck 2001). Most research within a consumer context has been done on the narrative structure of advertising and the impact on brand and ad evaluations, formation of self-brand connections (Escalas 2004b), affective responses and critical thought (Escalas 2004a). Product placements in popular entertainment provide a nuanced context within which to examine the processing of contemporary marketing narratives embedded within overall entertainment narratives (e.g., brand claims embedded within magazine article storylines). In this research we specifically examine the impact of audience immersion and the ease of identification with story characters on persuasion knowledge, as well as brand and narrative evaluations—for product placements in print media.

Results of two studies suggest that immersion and character similarity impact attitudes, perceptions, and self-brand connections jointly. Character similarity was operationalized via profession in study 1 and social distance in study 2. Findings of studies, however, are consistent—study 1 results suggest that immersion into narratives consisting of dissimilar characters serves to raise evaluations of embedded brands. Similar positive effects are found for brand personality and brand-self connections in study 2. Lower suspicions of commercial motives for including brands in the narrative were also reported. On adopting the perspective of a dissimilar protagonist, respondents evaluated the brand as well as the narrative (article) more positively. Interestingly, reverse effects of narrative immersion were found when perceived self-protagonist similarity was high. Responses to process measures reveal that respondents put greater effort and were more involved in the narrative on being instructed to imagine what the dissimilar author is going through. If imagining what people different from us are going through is cognitively taxing, fewer mental resources may be available to question the inclusion of brands within the story, thus leading to more favorable brand and article evaluations. Another explanation for results found in Study 2 is based on the process of upward social comparison. Compared to the home school, Harvard may carry images of prestige and aspiration. Social comparison research has demonstrated that upward social comparison with ideal images can fulfill one’s thin fantasies (Mills et al 2002), provide an attainable goal and increase satisfaction (Smeesters and Mandel 2006). Immersion into experiences of dissimilar but aspirational characters may therefore increase enjoyment in the narrative, facilitate self-brand connections (Fournier 1998), and promote positive image transfers from the character to the placed brand.

These results have important implications from a theoretical as well as managerial standpoint. We contribute to literature on narrative processing and marketing communications by examining the impacts of character similarity and narrative immersion on placement efficacy in print media. We also provide insights on best practices for placing brands across genres that engender varying involvement (e.g., suspense thriller versus comedy) within

entertainment narratives consisting of characters that are similar or dissimilar to target audiences. Data has been collected for an additional study to further understand results found here. To confirm that cognitive overload is the mechanism underlying responses to immersion in narratives about dissimilar characters, respondents instead participate in a cognitive task (GRE analytical test). Skepticism, brand evaluation, narrative evaluation and self-brand connections are measured. Data analysis will be complete by September 2006. One limitation of this, and previous, research is that companies seldom use product placements in isolation. For example, the

portfolio of promotions used to launch BMW's Z3 roadster car spanned appearances within the movie GoldenEye, cross-promotions of the car with the movie, and public relations appearances by actors (Fournier and Wojnicki 1999). We, thus, propose to look at the joint effects of different forms of marketing communications in future studies.

For further information contact: Namita Bhatnagar, Assistant Professor of Marketing, Asper School of Business, University of Manitoba, 181 Freedman Crescent, Winnipeg, MB R3T 5V4, Canada.

**When Feasibility Elevates Involvement and Intention**

Yael Steinhart, University Of Haifa  
David Mazursky, Hebrew University of Jerusalem

**ABSTRACT**

Purchase availability—whether a product is available or unavailable for purchase— has been vastly adopted in past studies as the manipulation of involvement. The current research specifies the differential effect of the manipulation by illustrating its effect on involvement among individuals with strong related knowledge about the product. In other cases, the manipulation bypasses involvement and influences directly the intention to buy. The direct effect of the purchase availability manipulation on purchase intention was found to be beyond the extent of knowledge. It stems from accessible cognitive

responses invoked within the unavailable condition, which degrade the feasibility of the purchase. The research offers a more accurate direction for operating involvement derived from the theoretical antecedents of involvement, including the consumer's personal profile purchase situation, and the target product; since the antecedents' effects on purchase intention were mediated exclusively by involvement.

For further information contact: Yael Steinhart,  
Department of Marketing; University of Haifa; Haifa,  
Israel; e-mail: [ysteinhart@gsb.haifa.ac.il](mailto:ysteinhart@gsb.haifa.ac.il)

### Prior Relevance And Prior Irrelevance In Multiple Outcome Learning

Marcus Cunha Jr., University of Washington  
 Chris Janiszewski, University of Florida  
 Juliano Laran, University of Florida

#### ABSTRACT

A large number of models have been proposed to describe the adaptive learning process. One of the more popular models, and the most common account of consumer adaptive learning, is the Rescorla-Wagner model (Rescorla & Wagner 1972). One reason for the popularity, and success, of the Rescorla-Wagner model may be its ability to explain associative learning in single outcome learning environments. Yet, there are many consumption-learning environments in which people may need to learn about multiple outcomes as when different features of products and services predict different benefits for a single brand or for competing brands. There is some evidence that a different class of models, called conditioned stimulus (CS) processing models, might provide a better explanation of how people learn in multiple outcome environments (Kruschke & Blair 2000; Kruschke, Kappenman, & Hetrick 2005). US-processing models such as Rescorla-Wagner's assume learning about each outcome is independent. Learning that cues are effective, or ineffective, predictors of the first outcome has no bearing on learning about these cues with respect to the second outcome. CS-processing models assume learning about each outcome might be interdependent. Learning that a cue is an effective, or ineffective, predictor of the first outcome may reduce its associability when learning about the second outcome. The implication for marketers is straightforward. Firms often attempt to introduce new benefits that current product features can provide (i.e., new uses for a product). According to US models, consumers should be surprised by unexpected benefits and promptly update their perceptions of new product features. According to CS models, however, due to the prior history of associative learning between a feature and a benefit, people will be much less prone to associate that feature with a new benefit.

In Experiment 1, which involved learning about restaurants, the learning procedure taught 194 respondents that feature A predicted outcome 1 ( $A \rightarrow O1$ ) and that feature B predicted outcome 2 ( $B \rightarrow O2$ ). The learning procedure in stage 2 taught that features A and C predicted outcome 3 ( $AC \rightarrow O3$ ), features A and D predicted outcome 3 ( $AD \rightarrow O3$ ), and that features E and F predicted outcome 4 ( $EF \rightarrow O4$ ). In the test phase, respondents decided whether

AE, AF, CE, CF, DE, and DF predicted O3 or O4. If people learn as predicted by CS-processing models, a respondent who has learned that feature A predicts O1 in learning stage 1 should be resistant to learning about feature A in the AC and AD in stage 2 trials and feature A should be a weak predictor of O3. Features C and D should become strong predictors of O3. While test compounds AE and AF should predict O4, compounds CE, CF, DE, and DF should predict O3. In line with the CS-processing models' prediction, respondents expected restaurants having the AE and AF features to have benefit O4 ( $\hat{\pi}_{O3} = .345$ ,  $\hat{\pi}_{O4} = .655$ ;  $z = 4.53$ ,  $p < .05$ ) and the CE, CF, DE, and DF features to have benefit O3 ( $\hat{\pi}_{O3} = .575$ ,  $\hat{\pi}_{O4} = .425$ ;  $z = 2.11$ ,  $p < .05$ ). The results of Experiment 1 are consistent with the predictions of the CS-processing model. Once people learned that feature A predicted O1 in learning stage 1, they became less likely to learn that feature A predicted O3 in learning stage 2, provided that feature A was also paired with feature C or D. People pay less attention to a cue that they have learned about in the past when novel competing cues are available.

In Experiment 2, we investigate a more common reason for cue irrelevance, the blocking effect. Traditional blocking evidence has shown that learning a relationship between one cue and an outcome blocks subsequent learning about a second, co-occurring, cue and the same outcome. CS-processing models predict that learning the irrelevance of a cue for predicting one outcome attenuates subsequent learning about this cue and a *different* outcome. This attenuated learning is not predicted by US-processing models. Learning stages 1 and 2 consisted of a standard blocking procedure. In learning stage 1, respondents learned  $A \rightarrow O1$  and  $B \rightarrow O2$ . In stage 2, they learned  $AC \rightarrow O1$  and  $HI \rightarrow O5$ . We then asked respondents to select either O1 or O4 as the outcome for features CH and CI. If blocking was successful, CH and CI should predict O5. In learning stage 3, respondents learned  $A \rightarrow O1$ ,  $B \rightarrow O2$ ,  $CD \rightarrow O3$ ,  $CE \rightarrow O3$ ,  $FG \rightarrow O4$ . We then asked respondents whether CF, CG, DF, DG, EF, and EG predicted O3 or O4. Within-subject tests of responses by 61 participants showed that, as predicted by the CS-processing model, they expected restaurants having features CF and CG to have benefit O4 ( $\hat{\pi}_{O3} = .312$ ,  $\hat{\pi}_{O4} = .688$ ;  $z = 3.18$ ,  $p <$

.05) and restaurants having features DF, DG, EF, and EG to have benefit O3 ( $\hat{\pi}_{O3} = .633$ ,  $\hat{\pi}_{O4} = .367$ ;  $z = 2.27$ ,  $p < .05$ ). An additional analysis confirmed that the stage 1 and stage 2 learning resulted in blocking. As expected, respondents predicted features CH and CI to have benefit O5 ( $\hat{\pi}_{O1} = .342$ ,  $\hat{\pi}_{O5} = .657$ ;  $z = 2.58$ ,  $p < .05$ ).

Our results also have important substantive implications. In most mature product categories, consumers have lay theories regarding attribute-performance relationships based on prior experiences and/or advertisements. For instance, people believe that silk may improve the "hair shininess" outcome of a shampoo. Attempting to associate this attribute with another outcome may be much more challenging when people learn through CS-processing than when they learn through US-processing strategies. Our research suggests that, when people learn in line with CS-processing models, advertisers, consumer advocates, and public policy legislators will need to spend a much larger amount of resources to get people to accept new knowledge than when people learn in line with US-processing models.

#### REFERENCES

- Gluck, M. A. & G. H. Bower (1988), "From Conditioning to Category Learning: An Adaptive Network Model," *Journal of Experimental Psychology: General*, 117 (September), 227-247.
- Kruschke, John K. (1996), "Base Rates in Category Learning," *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 22 (January), 3-26.
- Kruschke, John K. & Nathaniel J. Blair (2000), "Blocking and Backward Blocking Involve Learned Inattention," *Psychonomic Bulletin and Review*, 2000, 7 (December), 636-645.
- Kruschke, John K., Emily S. Kappenman, & William P. Hetrick (2005), "Eye Gaze and Individual Differences Consistent with Learned Attention in Associative Blocking and Highlighting," *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 31 (September), 830-845.
- Mackintosh, Nicholas J. (1975), "A Theory of Attention: Variations in the Associability of Stimuli with Reinforcement," *Psychological Review*, 82 (July), 276-298.
- Rescorla, Robert A. & Allan R. Wagner (1972), "A Theory of Pavlovian Conditioning: Variations in the Effectiveness of Reinforcement and Nonreinforcement," in *Classical Conditioning II: Current Research and Theory*, eds. Abraham H. Black and William F. Prokasy, New York: Appleton-Century-Crofts, 64-99.
- van Osselaer, Stijn M. J. & Chris Janiszewski (2001), "Two Ways of Learning Brand Associations," *Journal of Consumer Research*, 28 (September), 202-223.

For further information contact: Marcus Cunha Jr.; [cunhamv@u.washington.edu](mailto:cunhamv@u.washington.edu); (206) 543.8780.

## Temporal Response to Opportunities: A Look at the Last Name Effect

Kurt A. Carlson, Duke University  
Jacqueline M. Conard, Vanderbilt University

### ABSTRACT

Everyday life presents numerous opportunities to claim scarce resources. A one-day sale, getting in line at a buffet dinner, responding to limited-time directing marketing offers—all present individuals with the opportunity to act quickly (to increase the chance of securing the desired resource) or to act with patience (opening one to the possibility of not getting the desired resource). While there is a growing body of work on when people will consume a resource they already possess (e.g. Ainslie and Haslam 1992; Lowenstein and Prelec 1992), relatively little has been written on what determines the timing of individuals' acquisition of resources. That is, very little is known about what causes individuals to respond quickly or with patience to opportunities to acquire desirable resources.

We contend that children with last names at the beginning of the alphabet enjoy privileged treatment: they are at the beginning of lines, sit in the front of the class, and get first choice when picking what to bring to class. Likewise, those with last names late in the alphabet face parallel disadvantages. What, if any, long-term effects do these experiences have on a person's psyche? Do the children with last names late in the alphabet feel a greater urgency to take advantage of opportunities for which the response is within their control; that is, when the response is NOT dictated by alphabetical order? Do children with last names early in the alphabet grow-up with an ingrained sense of entitlement resulting in a lackadaisical response to opportunities? This research takes a first step in understanding how the first letter of one's last name affects behavioral responses to opportunities and then delves into what perceptions and beliefs individuals have regarding the last name effect.

Having noted that children with last names late in the alphabet are generally last in line throughout much of their school life, we propose that children develop response tendencies to manage this inequitable class system, and that these response tendencies persist into adult life. Specifically, we hypothesize that individuals with a last name beginning with a letter late in the alphabet will respond relatively quickly to opportunities to claim resources. Likewise, individuals with a last name beginning with a letter early in the alphabet will

respond relatively slowly to opportunities to claim scarce resources.

In a series of four studies involving real consequences, we find strong support for the last name effect hypotheses. In addition, to understand individual perceptions regarding the effect of their last name better, we present a two-part study (one part qualitative and one part quantitative), which provides interesting insights into the perceptions and beliefs that underlie the last name effect. Finally, a short discussion of the implications and impact of the total research into the last name effect is presented.

In the first study, we find that PhD students who have recently received a job offer are quicker to make the offer public if they have a last name that begins late in the alphabet. This last name effect exists even when we control for the quality of the job offer, the cultural background of the respondent, and the quality of the degree. The result suggests that individuals with last names late in the alphabet exhibit a tendency toward more immediate gratification in the form of public awareness of one's job placement success.

The second study examines a situation where resources are finitely fixed and so are truly scarce. MBA students and business school staff members were given the chance to respond via email to an offer to receive free tickets to attend a women's basketball game between two top-ranked teams. Examining the time each email was received and the first letter of the last name of the respondent revealed that individuals with last names deeper into the alphabet responded more quickly to the offer.

Study 3 replicated the results of Study 2 using responses to an invitation to participate in a 45 minute wine choice study. In exchange for participating, respondents were promised \$5 and a bottle of the wine they selected during the experiment. Prospective respondents were told that time slots were limited and that the experimenters would use a first-come-first-served rule. The announcement of the study was made in class, so that all students would have equal opportunity to respond (via email) upon exiting class. As in Study 2, students with last names that began with letters later in the alphabet responded to the prospect more quickly than



those with last names beginning with letters early in the alphabet.

Study 4 focuses on identifying a boundary condition for the effect as well as replicating the phenomenon in a new domain. Participants in a web-based research pool were emailed with the opportunity to participate in a research study in return for the chance to win \$500 in a lottery if they responded within seven days. The response time, the current first letter of the last name, and the original first letter of their last name were analyzed. The results reveal a boundary condition such that the effect only holds for adults when maiden names are used. This suggests that the effect is rooted in a response tendency learned at a young age.

Overall, we find that the last name effect does have robust and meaningful implications for understand consumer responses to opportunities. These findings enhance the work that has been done on when people will consume a resource they already possess by demonstrating how a person's life experience can produce reliable differences in response tendencies. Moreover, the results of study 4 suggest that this effect is ingrained so deeply into a person's psyche at an early age that individuals do not adapt to changes in their name during their adult years.

For further information contact: Jacqueline Conard ;  
Jacqueline.conard@owen.vanderbilt.edu

**A Behavioral Perspective on Differential Effectiveness of Promotions**

Session Co-Chairs: Uzma Khan, Carnegie Mellon University

Yuhuang Zheng, Fordham University

Session Discussant: Baba Shiv, Stanford University

**ABSTRACT**

In today's world sales promotion has become a ubiquitous element of marketing. For many consumer product firms, promotions represent two-thirds of their marketing expenditures (Blattberg and Neslin 1990). The main purpose of these promotions is to stimulate demand. However, the reality of consumer behavior is not so straightforward and we need a better understanding of the processes that influence consumers' perception of and response to promotions. For example, little is known about whether promotions affect consumers' purchase likelihood of hedonic and utilitarian products differently, and if so, why. The present session introduces three current programs of research that offer converging theories and evidence on the differential effectiveness of promotions on hedonic versus utilitarian products. This has both theoretical and practical importance as it investigates how and why consumers respond differently to a (same level of) promotional discount in ways that cannot be fully explained by the traditional economic standpoint.

In the first paper, Zheng and Kivetz demonstrate that promotions have a stronger effect on the purchase likelihood of hedonic than utilitarian products. These effects are found even for the purchase of the same product with different goals (hedonic vs. utilitarian consumption; self use vs. gift) or different product descriptions. Supporting the main theme of the session, Khan and Dhar use a bundling context to show that consumers respond differently to the same level of discount depending on the product-type it is tied with. Specifically, they show that discounting a hedonic component of a bundle is more effective in increasing bundle sales than offering the same amount of discount on the bundle as a whole or on its utilitarian component. Finally, Zhang and Soman show that insofar as the immediate reward is good enough, consumers are less willing to wait for a larger reward when buying hedonic products than when buying utilitarian items.

The issues covered in this session are pertinent to understanding the dynamics of consumer decision making. Taken together, the three papers attempt to uncover the processes that influence consumers' perception of and reaction to promotions. In the course of examining these issues, the papers extend beyond the demonstration of behavioral anomalies

and throw light on the underlying psychological mechanisms. Zheng and Kivetz explain the differential effectiveness of promotions based on the notion that consumers experience greater justification difficulty and stronger guilt when considering spending on hedonic than utilitarian products and hence are more likely to rely on external justifications, such as promotions, to help them make a hedonic purchase. Relatedly, Khan and Dhar propose that the guilt associated with purchasing hedonic goods can explain the greater effectiveness of discounts on the hedonic component in a bundle and rule out alternative explanations across a series of studies. Similarly, Zhang and Soman explain that because of guilt in experienced in purchasing hedonic products, a reasonably good reward at the time of purchase better alleviates consumers' feelings of guilt than does the anticipation of receiving a larger reward in the future. In contrast, purchasing utilitarian products does not evoke guilt, and consumers are thus more willing to wait for the larger reward. Overall, the session provides converging theories and evidence regarding the differential effectiveness of promotions on hedonic versus utilitarian products.

**Justification And Promotion Effectiveness**

Yuhuang Zheng, Fordham University

Ran Kivetz, Columbia University

The use of promotions and incentives such as coupons, discounts, rebates, and free items is very popular. The importance of promotions is reflected in their central role in the marketing mix and the everyday decisions of marketers (e.g., many store circulars are planned and printed every week). However, while we often see promotions for both hedonic and utilitarian products or services, little is known about whether promotions affect consumers' purchase likelihood of hedonic and utilitarian products differently, and if so, why. Therefore, it is of both theoretical and practical importance to investigate the difference in consumer perceptions of and responses to promotions on hedonic versus utilitarian products. Accordingly, this research examines the differential impact of promotions on consumers' purchase decisions of hedonic versus utilitarian products.

Prior research in social sciences (e.g., Kivetz and Simonson 2002; Kivetz and Zheng 2006; Maslow 1970; Prelec and Loewenstein 1998; Weber 1958) suggests that consumers feel more difficulty to justify spending money on hedonic than utilitarian products because of the inherent disadvantages of hedonic luxuries compared with utilitarian necessities. Consequently, we propose that consumers have a stronger need for justification and are more likely to rely on external justifications such as promotions to help them make a purchase decision when buying hedonic products than buying utilitarian ones. Therefore, it is predicted that promotions have a stronger effect on the purchase likelihood of hedonic rather than utilitarian products. This and other related predications are tested in a series of studies using a variety of promotion programs and product categories in different price ranges.

Studies 1a-1b test the proposition that promotions have a stronger effect on the purchase likelihood of hedonic products than utilitarian ones. Specifically, Study 1a employed a 2 (product type: hedonic vs. utilitarian) X 2 (promotion availability: available vs. unavailable) between-subjects design and showed that while a promotional offer (\$7 mail-in rebate) had a significant positive effect of 34% on the purchase likelihood of a \$22.99 DVD movie (13% vs. 47%,  $p < .001$ ), the same promotion had only a marginally significant positive effect of 10% on the purchase likelihood of a \$22.99 ink cartridge (77% vs. 87%,  $p < .1$ ). More importantly, the interaction effect between promotion availability and product type was significant ( $p < .05$ ). Study 1b replicated the results of Study 1a by employing a similar 2 X 2 between-subjects design while using hedonic and utilitarian products that are in the same product category (Time Out New York magazine vs. Time magazine), therefore ruling out the possibility that the differential impact of promotions on purchase likelihood of hedonic versus utilitarian products were due to other product characteristics rather than the hedonic or utilitarian nature of the products.

Studies 2a-2b are designed to give stronger tests of the above proposition and to have greater construct validity by holding constant the product in all conditions while manipulating either consumption goals (hedonic vs. utilitarian) or product descriptions (more vs. less hedonic) across conditions. Specifically, Study 2a shows that while a promotional offer (25% off discount) had a significant positive effect of 36% on the purchase likelihood of a digital camcorder when the consumption goal is for spring break vacation (32% vs. 68%,  $p < .001$ ), the same promotion did not have

a significant effect on the purchase likelihood of the same camcorder when the consumption goal is for studying TV journalism (63 vs. 74%,  $p > .1$ ). More importantly, the interaction effect between promotion availability and consumption goal was significant ( $p < .05$ ). Similarly, Study 2b shows that while a promotional coupon had a significant effect of 18% on the likelihood to subscribe to a city guide magazine when it was given with more hedonic description (37% vs. 56%,  $p < .01$ ), the same promotional coupon had no effect on the likelihood to subscribe to the same magazine when it was given with less hedonic description (58% vs. 58%,  $p > .1$ ). The interaction effect between promotion availability and product description was significant ( $p < .05$ ).

The last two studies were designed to test the conceptualization by investigating the differential effects of promotions when a product is purchased for self compared to when a product is purchased as a gift for others. Specifically, Study 3a shows that although a promotion has a strong effect on the purchase likelihood of hedonic chocolate when it is purchased for self (23% vs. 53%,  $p < .01$ ), this effect is eliminated when the same hedonic chocolate is intended as a gift for others (64% vs. 51%,  $p > .1$ ). The interaction effect was significant ( $p < .01$ ). Study 3b further demonstrates that while a promotion had differential effects on the purchase likelihood of a hedonic product (DVD movie) when it is purchased for self compared to when it is purchased as a gift for others (interaction effect  $p < .05$ ), there was no significant differential effects of promotion on the purchase likelihood of a utilitarian product (book) when it is purchased for self or as a gift for others (interaction effect  $p > .1$ ). These findings are consistent with the proposed conceptualization that consumers find it more difficult to justify spending money on hedonic luxuries for themselves and therefore they have a stronger need for and are more sensitive to external justifications such as promotions.

For further information contact: Yuhuang Zheng, Assistant Professor of Marketing, Business School, Fordham University, 420 E 70<sup>th</sup> Street 3F, New York, NY 10021. Tel: (718) 817 00689. Email: ayuzheng@fordham.edu

#### **Product Bundles And Differential Effectiveness Of Price Discounts**

Uzma Khan, Carnegie Mellon University  
Ravi Dhar, Yale University

Bundling or tying discounts to purchase aggregation has become a common marketing practice. The current research examines whether a contingent discount on certain items in the bundle is more effective than an equivalent discount on the bundle as a whole when the shopping basket contains both hedonic and utilitarian components. Several studies suggest that the purchase of hedonic goods is often associated with disutility beyond its monetary costs, e.g., higher pain of paying (Prelec and Loewenstein 1998), guilt from indulgence, and difficulty of justification (Okada 2004; Dhar and Wertenbroch 2000). Because of these differences in hedonic and utilitarian product types, we propose that a bundle purchase is more likely when a discount is offered on the hedonic item rather than when it is offered on the bundle or on the utilitarian item. We explain that a discount serves as a justification that can increase the likelihood of a hedonic purchase while such justifications have little impact on utilitarian consumption as it faces lower disutility. Our proposition is hard to reconcile with the economic notion of fungibility, which would argue that \$10 saved should feel like \$10 regardless of the item on which this saving is incurred. However, the reasoning is intuitive if saving money on a hedonic item is psychologically more rewarding than saving the same amount on a utilitarian item. Four studies demonstrate our proposed effect.

Experiment 1 used a reading lamp as a utilitarian and a soundcard as a hedonic item in a bundle offer. Participants saw a hypothetical scenario in three conditions that offered discount on different components of the bundle. Specifically, participants read the following: *Imagine that your doctor advised you to use a halogen lamp for reading. While shopping for the lamp you come across this special offer - Buy a \$50 soundcard (for intense gaming experience) with any \$50 reading lamp and get \$10 off the soundcard (lamp, total purchase).* Thus, the total cost of the two items was kept constant across the three conditions while the discount was placed on the lamp, the soundcard or the bundle. Participant then indicated the likelihood of buying the bundle on a nine-point scale (1=Not buy, 9=Definitely buy). Results show that purchase likelihood of the bundle was significantly higher ( $M=6.3$ ) when the discount was on the soundcard as compared to when the discount was on the lamp ( $M=4.1$ ,  $t(45)=4.33$ ,  $p<0.001$ ) or on the bundle ( $M=4.96$ ,  $t(46)=2.55$ ,  $p<0.05$ ). Moreover, when the discount was on the bundle the purchase likelihood of the bundle was higher than when the discount was on the lamp ( $t(45)=1.85$ ,  $p=0.07$ ). The results are consistent with the idea that a discount is more effective when given

on a hedonic item as it provides an added justification for the purchase.

An alternative account for the first experiment could be that a discount is most effective when placed on the unintended purchase. That is, consumers' need justifications to buy items which they have not previously planned to purchase. Study 2 was set up to rule out this possibility by focusing on bundle purchase in two conditions that used a blender as an unintended purchase option. Specifically, participants imagined that they were at a mall to purchase the lamp when they find the deal bundling the lamp with a blender. The blender was either framed as hedonic (*for making exotic cocktails*) or utilitarian (*for making healthy shakes*). Other instructions and measures were the same as in Study 1. If placing a discount on the unintended item is driving the bundle purchase then framing the blender as hedonic or utilitarian should not affect the purchase likelihood of the bundle. However, if hedonic or utilitarian nature of the purchase is responsible for our results then the effect observed in Study 1 should attenuate when the blender is framed as utilitarian. The main result was replicated. In the hedonic framing, the purchase likelihood of the bundle was significantly higher when the discount was on the blender ( $M=6.6$ ) than when the discount was on the lamp ( $M=5.25$ ;  $t(68)=3.02$ ,  $p<0.005$ ). Moreover, when the same blender was framed as utilitarian there was no significant difference in the purchase likelihood of the bundle in different discount conditions ( $t(68)=1.01$ ,  $p=ns$ ).

Study 3 tests whether the difficulty of justification moderated the effect. Past research shows that buying something as a gift does not have the usual guilt and difficulty of justification that is associated with hedonic purchases (Thaler 1985). To the extent that purchasing something as a gift is less difficult than buying it for self, we predict that the effect observed in Study 1 would be diminished when the blender is purchased for a gift. As in other experiments, participants imagined that they were buying a lamp for themselves when they come across a deal bundling the lamp and a blender for making exotic cocktails. In one condition participants were told that the blender will make a great gift for their roommate while in the other they were suggested that the blender would be an exciting addition to their kitchen. Results show that placing the discount on the blender significantly increased the purchase likelihood of the bundle when the blender was for personal use ( $t(65)=2.36$ ,  $p<0.05$ ) but not when the blender was for a gift ( $t(68)=0.44$ ,  $p=ns$ ). In other words, a discount on the blender increased the

purchase likelihood of the bundle when it provided an added justification and not when the justification was inherent in the purchase itself.

A final study shows that the guilt anticipated in a hedonic purchase mediates the proposed effect of discount framing. An interesting implication of these studies is that people process the discounts as they are offered and do not aggregate across different items. This is consistent with mental accounting research which shows that money is not treated interchangeably. For example, Heath and Soll (1996) demonstrated that consumers allocate money to different mental accounts and that their purchase propensity is driven by the money available in a category. Furthermore, our findings suggest that people may not be motivated to interpret a discount in a manner that makes it easier to purchase the hedonic item.

For further information contact: Uzma Khan, Assistant Professor of Marketing, Tepper School of Business, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213. Tel: (412) 268 9455. Fax: (412) 268 7357. Email: [khanu@andrew.cmu.edu](mailto:khanu@andrew.cmu.edu)

#### **Preference For Receiving An Immediate Reward When Buying Hedonic Products**

Jiao Zhang, University of Miami  
Dilip Soman, University of Toronto

Many promotions offer a reward consumers can receive sometime after they have bought a particular product; the reward may be a free gift or a refund. An interesting question is whether the attractiveness and effectiveness of rewards entailing a time delay depend on the nature of the promoted product, hedonic or utilitarian. Are consumers more likely to favor a larger-delayed reward over a smaller-immediate reward when they buy utilitarian products or when they buy hedonic products?

Previous research suggests that many consumers tend to find it unjustifiable to buy a hedonic product and anticipate that feeling of guilt will result from the purchase. A central premise of the present research is that this anticipated feeling of guilt leads these consumers to require a sufficiently large reward to justify buying the hedonic product and to prefer receiving the reward at the point of purchase because that is when the feeling of guilt, if it is evoked, is the most intensive. Buying utilitarian products, on the other hand, does not evoke any feeling of guilt, and except for natural time preference, consumers buying utilitarian products have no special need to receive

the reward at the time of purchase as do consumers buying hedonic products. The preceding analysis leads us to propose that if an immediate reward is large enough, although consumers buying utilitarian products prefer waiting for a slightly larger reward, consumers buying hedonic products prefer receiving the immediate reward. Also, this effect is weaker in situations where consumers have a justification for buying the hedonic product.

In four studies, we find evidence in support of our proposition. More important, we explore several factors that moderate the basic effect and rule out an alternative explanation which posits that thinking about the hedonic aspects of a hedonic product makes one more impulsive and impatient.

In the first study, we established the basic effect and tested an alternative explanation positing that thinking about a hedonic product would make one more impulsive and impatient. Respondents read a definition of either a hedonic or a utilitarian product and wrote down a product that met the definition and was worth about \$50. A pretest confirmed the effectiveness of this manipulation: The self-generated hedonic products were rated as more desirable gifts than self-generated hedonic products, whereas purchase intention for the self-generated utilitarian products was higher than that for the self-generated hedonic products. Half participants were told that they could buy the products they generated under one of two promotions, a \$20 instant refund or a \$25 refund in four weeks. Half participants simply moved to a separate study in which they were asked to choose between receiving \$20 now and receiving \$25 in four weeks. The results showed that preference for the \$20 instant refund was stronger in the hedonic-product condition than in the utilitarian-product condition; but preference for receiving \$20 now was not influenced by whether participants generated hedonic or utilitarian products.

In the second study, we tested the idea that providing participants with a justification for buying a hedonic product would reduce their preference for the smaller-immediate reward. Participants were randomly assigned to three conditions. Those in the first two conditions were asked to imagine that they were buying either an iPod or a printer all-in-one, respectively. Those in the third condition read the same scenario as that in the first condition, except that they were told that they had been studying very hard and felt like deserving a self-gift. Participants in all three conditions chose between the same two promotions, a smaller-immediate reward and a larger-delayed one. Consistent with our prediction, more

participants in the first condition chose the smaller-immediate reward than did those in either of the remaining two conditions.

In the third study, we tested the idea that the difference in the preference for a smaller-immediate reward over a larger-delayed one between the hedonic-product condition and the utilitarian-product condition only exists if the immediate reward is large enough. Like the second study, participants in the present study were asked to imagine that they were buying either an iPod or a printer all-in-one. Three pairs of smaller-immediate and larger-delayed rewards were used. The difference in value between the smaller-immediate rewards in the three pairs was equivalent, and the difference in value between the smaller-immediate and the larger-delayed rewards in each pair was held constant. The results revealed a significant 2 (product nature) x 3 (promotion magnitude) interaction: When the magnitude of the smaller-immediate reward was large, more participants in the iPod condition chose the smaller-immediate reward than did participants in the printer condition; when the magnitude of the smaller-immediate reward was small, choice did not differ between the two conditions.

In the last study, we tested the idea that enhancing or reducing feeling of guilt moderates the effect. Participants were asked to choose between two promotions offered by a well-known massage salon at downtown Chicago on some of its services. In a separate survey, participants were asked to indicate whether they donated money to help the victims of the recent tsunami in Asia. Half the participants answered the donation questions immediately before participating in the massage study; half the participants answered the donation questions after they had finished the massage study and several filler studies. Participants were divided into two groups, those who donated money and those who did not. In accord with our prediction, the results revealed a significant 2 (donation to charity) x 2 (timing of the donation question) interaction: Reminding the participants who donated money increased their choice of the larger-delayed reward, whereas reminding those who did not donate money increased their choice of the smaller-immediate reward.

For further information contact: Jiao Zhang, Assistant Professor of Marketing, School of Business Administration, University of Miami, 5250 University Drive, Coral Gables, FL 33146, Tel: (305) 284 1773, Fax: (305) 284 5326. Email: [jzhang@exchange.sba.miami.edu](mailto:jzhang@exchange.sba.miami.edu)

## Restricted Exposure to Diversity

Session Chair: Anne M. Brumbaugh, Wake Forest University

### ABSTRACT

Technological innovation in the last quarter of the twentieth century has enabled greater consumer choice than ever before. The phrase, "It's a small world," has never been more true than at present. Advances in communication and journalism enable people to view real-time news about the war in Iraq with unprecedented access. Mass customization allows individuals to tailor products, services, and information to suit their own particular needs. Cable and satellite now offer tens of thousands of channels of video and audio programming. As a consequence, consumers are bombarded with more communications, more advertising, more clutter – more choices in what messages and products they consider than ever before. To break through this clutter, marketers and others have responded by creating ever more specialized messages and offerings that resonate with and meet the needs of smaller and smaller, more internally homogeneous (and segregated) target segments.

Though this fragmentation and specialization offer great benefits by providing people with information, products, and services they really need, these benefits come at a price. Ironically, in a world where there is more variety and choice than ever before, people are less likely than ever before to be exposed to messages that reflect a wide diversity of opinion, culture, and worldview. Because there are so many choices, so many channels of information, so many advertisements, etc., individuals have no choice but to screen out and ignore a majority of these messages in order to avoid the cognitive overload that processing all that information would require. In selectively attending to some messages while ignoring others, however, people are far more likely to choose messages that are consistent with their own worldviews than messages that are seemingly irrelevant.

Such restricted exposure to diversity transcends media messages to many other domains. Common interest developments like planned communities are growing at a faster rate than other types of housing. However, such communities are far less diverse than other forms of neighborhoods (Gordon 2004). Fragmentation of television programming and the proliferation of special-interest channels segmented on the basis of race (e.g. BET), language spoken (e.g. Univision), ethnicity (e.g., SiTV), gender (e.g., Spike and Lifetime), hobbies (e.g., The Golf Channel and

HGTV), and other consumer characteristics provide consumers with content that they choose to enjoy but restricts their accidental exposure to other people, lifestyles, norms, and beliefs.

Put simply, the proliferation of choice allows people to opt out of media and messages that might expose them to discourse, ideas, world views, and cultures that are different from their own, resulting in a decline in exposure to diversity. Research shows that this restricted exposure to low-involvement, heuristically processed messages about others influences how people view the world around them and may result in limited or inaccurate beliefs about social groups other than their own (e.g., O'Guinn and Shrum 1997). To the extent that people are exposed to messages that support and reinforce their own experiences, goals, and values, they may come to believe erroneously that the rest of the world also shares these experiences, goals, and values. Rather than becoming more tolerant, pluralistic, and accepting of others, people are likely to become more ignorant of other social groups, more insulated, and more protective of their own.

The purpose of this session is to explore the phenomenon of restricted exposure to diversity, its antecedents, and its outcomes. Three very different presentations in this session are likely to attract a wide audience interested generally in diversity, and specifically in media fragmentation, consumption of diversity in a postmodern world, and social psychological phenomena related to in-group/out-group distinctions. The session will begin with a brief introduction of a framework for understanding and exploring restricted exposure to diversity that provides a context for the three presentations and subsequent discussion. Three 20 minute presentations explore different aspects of this framework. In his session, Irvin will introduce the concept of "Ignoracism" whereby individuals find it cognitively easy and socially pleasant to ignore issues of diversity in their own lives on the basis of constructing and living in a "color-blind" society. Schumann and Hood present research regarding restricted exposure to diversity in online search behavior. Their research shows that individuals use search and decision heuristics that favor familiarity, efficiency, and security over exploration and diversity in their online ventures. In the last presentation, Brumbaugh and Grier introduce the idea of diversity seeking and diversity seekers who choose

to search purposefully for diverse viewpoints, information, and experiences for their own consumption. Their data suggest that different people have different propensities to seek diversity in their consumption and other choices.

This session makes important contributions in the areas of diversity, media, and consumption in an increasingly fragmented “small world.” Each presentation makes a distinctive and unique contribution to understanding restricted exposure to diversity in modern society, from Irvin’s thoughtful explication of “ignoracism” to Schumann and Hood’s grounded theory study of online search behaviors that restrict diversity to Brumbaugh and Grier’s exploration of individuals’ propensity to seek (and, by implication, restrict) diversity. This session makes salient the unintended consequences of segmentation and target marketing that marketers and others fail to see.

#### **The Future of Race In America: Racism vs. Ignoracism**

Nat Irvin, II, Wake Forest University

The face of America is about to change. Everyday from now on, America will become more black, more brown, more Asian, less white, and a whole lot more gray. Indeed, the U.S. Census Bureau projects that groups that we identify today as minorities will become the majority by as early as 2050 if not sooner (U. S. Census Bureau 2005). This future reality has already become a fact in four states (California, New Mexico, Hawaii, and Texas) and the District of Columbia, with an additional five more states with minority population estimates currently at around 40% (Maryland, Mississippi, Georgia, New York and Arizona) poised to join the ranks of these majority-minority states (Edmonson 2005).

The change in the complexion of America is also bringing about a transformation in the way the country deals with race, racism, culture, and ethnicity in the marketplace and, indeed, throughout all of society. This transformation is being driven at least in part by aging baby boomers and their parents who remain at the core of America’s first real encounter with the legacy of slavery, white superiority, and its aftermath as seen in the civil rights movement of the 60s. Although some argue that racism remains at the core of the racial divide in the U.S., I argue that racism as we have understood it is not the issue. Rather, a phenomenon I describe as “ignoracism” is really at work.

This conceptual discussion will introduce and discuss the concept of ignoracism, which is, quite simply, the indifference (feigned or real) to the reality of race and its continuing impact on the social fabric of society. Unlike racism, which holds at its core that one group is genetically and socially superior to others, ignoracism begins with a belief that all people are indeed genetically created equal. However, both racism and ignoracism are beliefs upon which people base their social, political, and economic decisions, beliefs about the social differences between groups that people use consciously or unconsciously to limit their interactions with members of other racial and ethnic groups. Although ignoracism does not permit a belief system of genetic supremacy, it does allow people to discriminate in how they live their lives by their choices regarding the neighborhoods in which they live, the stores where they shop, the people with whom they socialize, the partners they marry, the churches in which they worship – where they experience their closest relationships.

For example, whites who would not regard themselves as holding racist views and who are loath to such a philosophy are quite willing to live their lives in such a way that they essentially limit the ethnic and cultural variety of the people with whom they interact on a daily basis to only those others who look and behave as they do and who share their same basic values and beliefs. Although these whites find it unacceptable to either hold or act on racist views (publicly or privately), they nevertheless hold on to preferences that explain, in part, the continuing divide we see in economic opportunities for people of color versus whites.

In sum, this session integrates sociological and political perspectives and provides a viewpoint outside the marketing sphere that has profound implications for consumption and its impact on how people think, live, and interact in an increasingly diverse society.

#### **Restricting Exposure and Attention within Internet Searches: What Determines Where One Doesn’t Go on the Web?**

David W. Schumann, University of Tennessee  
Karen Hood, University of Tennessee

Everyday, as a result of lack of motivation, limited processing capacity, or constraints on time or energy, we select to enhance our exposure to certain stimuli while, at the same time, limiting or restricting our exposure to other stimuli (e.g. Lynch & Srull, 1982; Shiffrin, 1977). When we choose to restrict our



exposure, what is it that we restrict and why? It is our contention that what is restricted is likely to be exposure to things of a diverse nature. This presentation builds on the earlier conceptual work of the first author (Schumann 2003, 2004; Schumann and Hood forthcoming), the contentions of several pioneering social psychologists who have made note of the phenomenon of restricting opportunities for exposure to people, ideas, and things that are different (e.g. Newcomb, 1947, Allport, 1954, Stephan and Stephan, 1984), and more recently the notation of this phenomenon in media sociology (Gitlin, 2001) and political science (Sunstein, 2000).

In the introductory framework presented in this session, certain antecedents are believed to lead to this restriction of exposure to diversity. The model begins with basic human motives/needs and suggests that these needs are fulfilled by either expanding or narrowing one's experience. Even if people initially extend their experience, at some point they begin to narrow their scope due primarily to time constraints and interest priorities. Whether individuals initially extend or narrow their horizons, they ultimately have to decide what to include within their realm of experience. Some options simply have to be omitted. We contend that what an individual chooses to include typically reflects his or her self-identity and what an individual chooses to omit is often of a foreign or diverse nature.

To begin to better understand this phenomenon, we used grounded theory methodology (Strauss and Corbin, 1990) to explore people's choices regarding how they use the Internet. The advent of the Internet not only brought access to increased amounts of information, but also revolutionized the way individuals experience media and messages. Hoffman and Novak (1996) described the Internet as a "hypermedia environment," engaging users in a way no traditional media can. The interactive nature of the Internet environment, along with its capabilities to display and customize information according to the user's wishes, makes the Internet a unique medium where it is easy to observe restriction of information.

We audiotaped in-depth interviews with young professional women (age 25-40) while they were connected to the Internet. These interviews focused on search behavior, routine Internet experiences, and general interaction with the medium. The interviewer noted when decisions were made and asked participants to explain their decisions, including why they opted not to select other options available. Several interesting themes emerged

regarding decision criteria that reflected individuals' strong need for familiarity, simplicity, security, and control. Though some individuals stretch to explore many different sites, most keep to a very narrow range of previously explored options. Even those who stretch to explore new sites return frequently to a familiar home webpage. All use referrals from an outside source, such as email or advice from a friend, regarding most of their site visit selections as well as search engines to locate specific information to assist with a task. Our results suggest that individuals establish a particular set of websites that perform certain functions for them, thus minimizing their opportunity to examine other sites that might be unfamiliar.

Furthermore, it was clear that the Internet searchers employ specific decision heuristics which minimize exposure to relatively foreign sites. The results suggest that restricting exposure to certain kinds of information is based on different tensions experienced by subjects during their Internet experience, including perceived time pressure, task orientation, and the need for control. For example, time pressure was observed in several ways. First, there is actual time pressure based on a subject's schedule at work or home. Subjects with small children, for example, have a limited amount of time to complete their sessions before attending to the needs of their families. Second was the perception of time pressure related to the task orientation of an Internet visit. This pressure appears to be internal and based on the user's belief that the Internet should behave in a way that delivers the necessary information immediately and efficiently. Third was a self-induced time pressure imposed by subjects themselves on their Internet use so that they would not waste or lose track of time.

Regarding task orientation, early studies about how the Internet is perceived and utilized (e.g., Hoffman and Novak, 1996) suggest that users approach an Internet experience with a specific goal, task, or experience in mind. Similarly, our interviews suggest that users are very task oriented, even when seeking websites for entertainment purposes. Users describe having utilized the Internet in a way that is similar to the experiential orientation outside of the in-depth interview setting, but we observed visits to game sites and other entertaining web pages in a manner that much more closely resembles what the previous studies describe as a goal orientation.

Finally, frustration and annoyance arises in response to content that is out of the user's control and the methods users employ to avoid such content.

When they encounter content they were not seeking, or what several subjects termed “intrusive,” users employ similar techniques observed in studies about use of traditional media. For example, avoidance was observed in the form of software programs to block some content, mechanical avoidance by clicking off of a site, or physical avoidance effected by putting one’s hand over the unwanted or irrelevant content or by leaving the room. Further, to ensure familiarity and control of the content they viewed, users often refer to an outside source, usually someone who is more technology-savvy than they, for advice and verification of which sites they should visit.

The results of the study suggest that, through conscious and unconscious cognitive filtering, people limit their exposure to content based on what they feel is relevant and/or familiar to them. The dialog suggests that there is a tipping point with information that is supplied without solicitation, that is, subjects reported being happy about automatically receiving customized content they perceived as relevant to them, but being rather annoyed when it was not perceived to be relevant.

#### **Diversity Seeking in a Diversity Avoiding Society**

Anne M. Brumbaugh, Wake Forest University  
Sonya A. Grier, American University

Even as market segmentation and fragmentation enable some to insulate themselves in homogeneous neighborhoods, read only news with editorial content consistent with their own opinions, and restrict their exposure to others in their in-group, this segmentation and fragmentation also facilitate exposure to diversity for those who seek it out. Increasing research suggest that some people are more “diversity seeking” and have a greater propensity to seek out cultural or ethnic-related diversity in people, products, and services than others (Grier, Brumbaugh, and Thornton 2006). These consumers who are not members of a particular ethnic group may be attracted to ethnic-oriented products because they seek variety outside the usual mainstream fare, because they have an interest in the specific culture (Appiah 2004), or because they are interested in different ethnic cultures more generally (Halter 2000). For example, Hallmark markets a collection of greeting cards called “Common Threads” whose messages reflect a variety of world cultures, emphasizing global community and diverse cultural expression (Halter 2000). Hallmark research found that “Common Threads” buyers were overwhelmingly white consumers who also tended to

purchase multicultural or ethnic-oriented clothing, jewelry, and decorative home items. This segment is likely similar to the “Cultural Creatives” identified by Ray and Anderson (2000) which consists of 26% of adult Americans concerned with self-actualization, spirituality, and self-expression, and who like things that are foreign and exotic.

In this presentation, we share the results of our most recent in a series of studies to develop a Diversity Seeking Scale. People high in this characteristic should be more interested in and find more appealing products that reflect other diverse cultures, peoples, and places than people low in this characteristic. Results show that the Learning dimension of the Diversity Seeking Scale predicts behaviors of many diversity-oriented consumption related activities and that the Living dimension predicts how people structure their lives to experience diversity on a daily basis. Importantly, because people high in Diversity Seeking do actively put themselves in situations that include different types of people with different world views and opinions, people high in Diversity Seeking have much broader exposure to diversity. Though somewhat of a tautology, this result provides a basis for considering restricted exposure to diversity and diversity-seeking tendencies. Specifically, are people high in this characteristic because their exposure to images of diversity in their past was unrestricted, or does being high on this characteristic enhance exposure to diversity? We close with a discussion of the relationship between (un)restricted exposure to diversity and one’s propensity to seek (or avoid) diversity, and vice versa.

#### **REFERENCES**

- Allport, G.W. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.
- Appiah, Osei (2004). It must be the cues: racial differences in adolescents’ responses to culturally embedded ads. In Jerome D. Williams, Wei-Na Lee, and Curtis P. Haugvedt, Eds., *Diversity in advertising* (217-236) Hillsdale, NJ: Lawrence Erlbaum Associates.
- Edmondson, Brad (2006). America, new and improved. *Advertising age*, January 2, 2006, 77, 31-34.
- Gitlin, T. (2001). *Media unlimited*. New York: Metropolitan Books.
- Gordon, Tracy M. (2004). Moving up by moving put? Planned developments and residential segregation in California. *Urban Studies*, 41, 441-461.
- Grier, Sonya A., Anne M. Brumbaugh, and Corliss Thornton (2006). Crossover dreams: Consumer

- responses to ethnic-oriented products. *Journal of Marketing*, 70, 35-51.
- Halter, Marilyn (2000). *Shopping for identity: The marketing of ethnicity*. New York: Schocken Books.
- Hoffman, D.L. and Novak, T.P. (1996). Marketing in hypermedia computer-mediated environments: Conceptual Foundations. *Journal of Marketing*, 60, 50-68.
- Lynch, J.G. and Srull, T. K. (1982). Memory and attentional factors in consumer choice: Concepts and research methods. *Journal of Consumer Research*, 9, 18-37.
- Miller and M.B. Brewer (Eds.), *Groups in contact: The psychology of desegregation* (pp.229-250). San Diego, CA: Academic Press.
- Newcomb, T. (1947). Autistic hostility and social reality. *Human Relations*, 1, 69-86.
- O'Guinn, Thomas C. and L. J. Shrum (1997). The role of television in the construction of consumer reality. *Journal of Consumer Research*, 23, 278-294.
- Ray, Paul H. and Sherry H. Anderson (2000). *The cultural creatives: How 50 million people are changing the world*. New York: Harmony Books.
- Schumann, David W. (2003). "Media factors that contribute to a restriction of exposure to diversity. In L.J. Shrum (ed.), *The psychology of entertainment media*, Mahwah, NJ: Lawrence Erlbaum and Associates.
- Schumann, David W. (2004). The transmission of prejudice: What do our marketing strategies really reinforce? In Jerome Williams, Wei-Na Lee and Curt Haugtvedt (eds.), *Diversity in Advertising*, Hillsdale, NJ: Lawrence Erlbaum and Associates.
- Schumann, David W. and Karen Hood (forthcoming 2007). The Process and Consequences of Cognitive Filtering of Internet Content: Handling the Glut of Internet Advertising. In Schumann, D. W. and Thorson, E. (eds.), *Internet Advertising: Theory and Practice*, Lawrence Erlbaum Associates.
- Shiffrin, R.M. (1977). Attentional Control. *Perception and Psychophysics*, 21, 93-94
- Stephan, W.C., and Stephan, C.W. (1984). The role of ignorance in intergroup relations. In N.
- Strauss, A.L. and Corbin, J. (1990), *Basics of Qualitative research: grounded procedures and techniques*. Newbury Park, CA: Sage Publications.
- Sunstein, C. (2001). *Republic.com*. Princeton, NJ: Princeton University Press.
- U.S. Census Bureau, 2004, "U.S. Interim Projections by Age, Sex, Race, and Hispanic Origin," <http://www.census.gov/ipc/www/usinterimproj/>, release date March 18, 2004, downloaded November 16, 2006.

## Understanding Consumer Experiences in Different Channels: The Critical Factors

Moutusi Maity, University of Wisconsin, Whitewater  
George M. Zinkhan, University of Georgia

### ABSTRACT

Consumers frequently collect information through various search channels (e.g., in-store, Internet). The majority of past research regarding pre-purchase search has usually concentrated on exploring consumer search in one channel. We argue that it would be interesting to explore consumer search processes across different channels. Our objectives in this paper are three fold: 1) to identify factors that affect consumer experiences in different three channels (e.g., in-store, e-commerce and m-commerce); 2) to categorize the identified factors according to whether they shape positive and/or negative consumer experiences (i.e., satisfaction and dissatisfaction) across these channels; and 3) to identify some of the similarities and dissimilarities in consumer responses and experiences across the three channels. Cost theory (Stigler 1961), Expectation-Confirmation Theory (ECT) (Oliver 1980), and Adaptation Level Theory (ALT) (Helson 1948) are used to explain the implications of the findings.

Two experiments (one between-group and one within-group) are conducted in a large public university in the Southern United States. Participants are randomly assigned to one of the three channels (in-store, e-commerce and m-commerce), where each participant is asked to either choose an airlines ticket for a friend ("search" service type), or choose a restaurant where s/he would like to take friends out for dinner ("experience" service type).

Two hundred and twelve volunteers signed up for the study (39 participants for the pretest, 173 for the between subjects study (Study 1), 31 (of those who participated in study 1) participated in the between subjects study (Study 2)). Of those who signed up, 207 participated in the experiments. Of the 207 participants, 3 of those who are assigned to the m-commerce mode, lost connectivity during the course of the experiment, 2 did not complete the study and 1 could not begin the study due to unavailability of network. Thus, usable data are obtained for 201 participants. Of the 201 participants, all are under 30 years of age (18 – 27). The mean age is 20.7 years, with mode 20 years. 53.1% are females; 35.2% have a family income of over a hundred thousand US\$ and 85.2% are Caucasian Americans. Right after making the choice, participants are asked to send emails to their friends about their experiences during the decision-making task: "Now, we want you to write an

email message to your best friend about your decision-making experiences on this medium. What would you say?" The participants write an email to an alias email account especially created for this study. From the two studies, 232 responses (responses: 39 (Pretest) + 162 (Study 1) + 31 (Study 2)) are gathered and are used in the analysis.

Out of the 232 e-mail responses, nine are not usable (e.g., do not talk about the shopping experience). Therefore, 223 usable responses are used in the data analysis. Of these 223 e-mail responses, 78 are from e-commerce participants, 77 are from m-commerce participants and 68 are in-store participants. The results of these interviews are then content analyzed, as CIT proposes (see Bitner et al. 1990), with the purpose of identifying categories of critical factors that lead to outcomes of interest – the outcomes of interest here are factors that affect positive and negative experiences in each of the three channels. Three judges with considerable expertise in consumer behavior independently identify three major groupings of critical factors that account for all consumer experiences in each of the three channels: product-related (e.g., price, product attributes), channel-related (e.g., convenience, ease) and Personal. The judges then meet to compare the classifications (inter-rater agreement 96.7%), which are resolved by discussion.

### Implications

*Theoretical:* This study offers several implications for researchers. First, we extend ECT (Expectation Confirmation Theory) and ALT (Adaptation Level Theory) to the realm of decision-making in various channels. While undertaking decision-making in m-commerce and in-store, participants express dissatisfaction and compare the decision-making with their prior experiences in e-commerce, which is captured through the subcategory Compare with E-Commerce. This finding suggests that participants might hold their prior experience in e-commerce as a point of reference to which they compare their current shopping experiences, which can be explained through ECT and ALT. Second, Participants display greater negative feelings than positive feelings about decision-making in the m-commerce channel, which is the opposite of how the participants feel in either e-commerce or in-store environments. Third, the finding that the same categories of Product-Related

factors are important to consumers across all the three channels (e-commerce, m-commerce and in-store) that are investigated in this study. Our study draws a parallel between traditional retailing and e-tailing.

*Managerial:* This study also offers several implications for managers. First, though users perceive similarities between the three channels of search, they do not perceive them as being exact substitutes for one another. Rather, we find that users have specific behavioral characteristics in each of the three channels. Second, PDAs are probably not for carrying out complex tasks. Small and compact features are a plus in the endless pursuit of better gadgets, but our findings point out that there is probably a threshold in terms of when a product becomes too small to handle and use efficiently. Third, marketers interested in sending advertising materials over a PDA would probably have to limit the amount of information to be sent. Information disseminated via mobile devices would have to be relatively simple as consumers find “scrolling” (when using a PDA) extremely “stressful”. Fourth, the

finding that participants only in the in-store environment felt pressured to make a decision, have implications for service and possibly product placements.

#### REFERENCES

- Bitner, M. J., B. H. Booms and M. S. Tetreault (1990), “The Service Encounter: Diagnosing Favorable and Unfavorable Incidents”, *Journal of Marketing*, Vol. 54 (January), pp. 71– 84
- Flanagan, J. C. (1954), “The Critical Incident Technique,” *Psychological Bulletin*, Vol. 51 (July), pp. 327-57
- Helson, H. (1948), “Adaptation-Level as a Basis for a Quantitative Theory of Frames of Reference,” *Psychological Review*, Vol. 55, pp. 297-313
- Oliver, R. L. (1980), “A Cognitive Model for the Antecedents and Consequences of Satisfaction,” *Journal of Marketing Research*, Vol. 17, pp. 460-469.
- Stigler, George J. (1961), “The Economics of Information”, *Journal of Political Economy*, 72 (3),44-61

**Social Norms And Shelf Space Strategies:  
Influencing Consumer Preferences For High And Low Tier Brands At The Retail Shelf**

Detra Y. Montoya, University of Washington  
Naomi Mandel, Arizona State University  
Stephen M. Nowlis, Arizona State University

**ABSTRACT**

We examine how the amount of shelf space in a retail setting affects consumer preferences for high and low tier brands. While there has been some research on efficient shelf space allocation models (e.g. Desmet and Renaudin 1998), we offer a behavioral perspective of consumer preferences for high and low tier brands at the retail shelf. Specifically, we show that beyond sophisticated shelf models there are social factors that influence consumer preferences. We conducted two studies to investigate the impact of retail shelf space on consumer purchase decisions. In study 1, we found that an increase in shelf space results in greater preferences for low tier brands, but not high tier brands. In addition, consumers perceive the amount

of shelf space allocated to brands as a reflection of what brands other shoppers are buying. Thus, we argue that the amount of shelf space is considered a norm of how to shop in a category. However, this norm is affected by the presence of other similar shoppers. In study 2, we show that with an increase in shelf space, similarity to other shoppers (similarity salience) strengthens preferences for low tier brands, but weakens preferences for high tier brands. We conclude with future research.

For further information contact: Detra Y. Montoya; University of Washington Business School; Marketing and International Business Department; Box 353200; Seattle, WA 98195-3200; Phone: 206-616-2196; Email: [detram@u.washington.edu](mailto:detram@u.washington.edu)

## Bayesian Belief Updating: The Role Of Frequency Versus Percentage Formats

Dipayan Biswas, Bentley College  
Guangzhi Zhao, University of Kansas

### ABSTRACT

Consumers are frequently exposed to sequential streams of numerical information in both frequency (e.g., 10 out of 20) and percentage (e.g., 50% out of 20) formats. For instance, many regulators present sequential information in frequency formats in their reports (CPSC 2003), while many prescription drugs (e.g., ENBREL<sup>®</sup>) present efficacy and adverse effect information in magazine ads and package inserts, using percentage formats.

While processing a sequential stream of information, consumers are normatively expected to update their beliefs or judgments with each piece of information. Bayesian belief updating theory has been the most widely used theoretical framework to examine how people update their beliefs with new information (Diaconis and Zabell 1982). However, prior literature makes contradictory predictions regarding the degree to which respondents' judgments and belief updating are consistent with Bayes' theorem. Some studies (e.g., Kahneman and Tversky 1972; Bar-Hillel 1980) concluded that "man is not a conservative Bayesian: he is not Bayesian at all" (Kahneman and Tversky 1972, p. 450). Studies in this domain argued and found empirical evidence that people usually tend to average out the given numerical information (Lopes 1985, 1987; Shanteau 1975). In contrast, some other studies (e.g., Gigerenzer and Hoffrage 1995) hinted that people can be intuitively Bayesian especially if the information is presented in frequency formats, although this argument has been challenged by others (e.g., Lewis and Keren 1999; Mellers and McGraw 1999). Some other studies approached a middle-ground, and concluded that people do make inferences that are directionally consistent with Bayesian predictions, but their judgments are much more conservative than that made by Bayes' theorem (e.g., Edwards 1968; Rust et al. 1999).

In the present research, we identify conditions under which consumers update their product beliefs consistent with Bayesian theory, and other conditions under which they follow an averaging rule. We examine how information format (frequency vs. percentage) moderates the process in which consumers update their products beliefs when they are exposed to a sequence of numerical production information.

We propose that when numerical product information is presented either in percentage format (e.g., 10%) or in easy-to-compute frequency format (e.g., 2 out 20), consumers are unlikely to update their beliefs according to Bayes' theorem. Instead they will average out the given information. In contrast, when numerical product information is presented in difficult-to-compute frequency format (e.g., 13 out 17), consumers' belief updating are more likely to be consistent with Bayesian theory. These claims might seem somewhat counterintuitive because Bayesian belief updating theory is a normative model, while we are proposing that consumers are likely to have judgments consistent with Bayesian predictions when the numbers are difficult to compute mathematically. We provide the underlying theoretical causes for this pattern of results, and in the process, hope to resolve some of the inconsistency in prior findings.

In essence, we are proposing that when the numbers are easy to compute, the natural tendency of participants would be to average out the given information (Lopes 1985, 1987; Shanteau 1975). However, when the numbers involved are computationally difficult (e.g., testing agency A was correct 121 times out of 173; testing agency B was correct 123 times out of 173) participants would not be able to easily average out that information. Instead, when faced with cognitively demanding tasks, people would tend to rely on heuristics to process the given information (Boulding et al. 1999; Payne 1976). Hence, when computationally difficult sequential information is presented, participants being cognitive misers (Gilbert 1991) would not even attempt to mathematically average out the given information. Instead, there will be a confirmatory bias, whereby the first piece of information would become the focal hypothesis (Posavac et al. 2004; Sanbonmatsu et al. 1998), and hence consistent similar pieces of information would confirm this initial focal hypothesis. In essence, the heuristic employed by the participant is that they will form an overall impression of the rating from the first source of information. Now, when the second source is saying the same thing as the first source, that would act as a confirmation of the participant's initial beliefs. Hence the participant would update their beliefs in an upward direction after seeing the second piece of information. This updated judgment will be in the direction predicted by Bayes' theorem, because

Bayesian theory operates under a similar conceptual underlying theory. In Bayesian theory, probability judgments are assigned to a hypothesis. When additional information (or datum) that has above chance probability (that is, greater than 50%) in support of this hypothesis, posterior judgments should be updated in an upward direction (McKenzie 1994).

Consistent with our first three hypotheses, the results of Study 1 showed that: (1) For computationally difficult frequency information, consumer probability judgments were consistent with the Bayesian model. For percentage information and for computationally easy frequency information, consumer probability judgments were conservative than the Bayesian model, but consistent with the averaging model. (2) For sequential numerical information, with the order of sequence counterbalanced, consumers updated their probability judgments in an upward direction from the first data point to the second, only for computationally difficult frequency information. No such probability judgment updating occurred for the percentage or the easy to compute frequency conditions. (3) Consumers had greater number of confirmatory-related thoughts for

the difficult-to-compute frequency condition than for any of the other conditions.

Study 2 examined the role of data likelihood. Consistent with our final two hypotheses (H4 and H5), the results of Study 2 showed that: (1) For sequential difficult-to-compute information in frequency formats, consumers updated their probability judgments in an upward direction from the first data point to the second, and the degree of updating were by the same amount for both low versus extremely high likelihood data. There were no updating for the percentage format data. (2) For difficult-to-compute frequency information, participants' updated probability judgments were consistent with Bayesian predictions for low likelihood data and conservative than Bayesian predictions for extremely high likelihood data. For percentage data, consumer updated probability judgments were conservative than Bayesian predictions for both low and extremely high likelihood data.

For further information contact: Dipayan "Dip" Biswas; Department of Marketing; 238 Morison; Bentley College; 175 Forest Street; Waltham, MA 02452; Email: dbiswas@bentley.edu



## List of Contributors

|                        |               |                         |          |
|------------------------|---------------|-------------------------|----------|
| Aggarwal, Pankaj       | 7.1           | Cho, Cecile K.          | 1.4      |
| Agrawal, Nidhi         | 6.5           | Choi, Yung Kyun         | 7.5      |
| Aksoy, Lerzan          | 7.5           | Chung, She-Woong        | 6.2      |
| Andrade, Eduardo B.    | 2.5           | Cialdini, Robert B.     | 5.3, 6.1 |
| Argo, Jennifer J.      | 2.3           | Coffernlis, Ati         | 5.1      |
| Ariely, Dan            | 2.5, 3.1, 3.4 | Cohen, Joel B.          | 3.3      |
| Assunção, João         | 2.4           | Cole, Catherine         | 1.3      |
| Attaya Boland, Wendy   | 8.1           | Conard, Jacqueline      | 8.2      |
| Bagchi, Rajesh         | 4.3           | Corfman, Kim P.         | 8.1      |
| Bakir, Aysen           | 7.3           | Cowley, Elizabeth       | 5.5      |
| Balabanis, George      | 3.1           | Craciun, Georgiana      | 8.1      |
| Basil, Debra           | 6.3           | Cronley, Maria          | 3.3      |
| Basil, Michael         | 6.3           | Cryder, Cynthia         | 7.3      |
| Bauer, Hans H.         | 6.4           | Cuddy, Amy J.C.         | 1.5      |
| Baumgartner, Hans      | 5.5           | Cunha, Marcus           | 2.4, 8.2 |
| Bearden, William O.    | 5.2           | Czellar, Sandor         | 4.1      |
| Bee, Colleen C.        | 3.1           | Dacin, Peter            | 6.4      |
| Belyavsky, Julia       | 3.3           | Dalton, Amy             | 7.4      |
| Bennett, Aronte        | 1.1           | Das, Neel               | 2.3      |
| Bertini, Marco         | 3.4           | De Pelsmacker, Patrick  | 5.1, 7.2 |
| Bettman, James R.      | 1.3           | DeVecchio, Devon        | 4.5      |
| Bhatnagar, Namita      | 6.3, 8.1      | Deng, Xiaoyan           | 3.5      |
| Bhattacharya, C.B.     | 6.4           | Dens, Nathalie          | 7.2      |
| Biswas, Dipayan        | 8.5           | Deshpande, Sameer       | 6.3      |
| Bloch, Peter           | 3.5           | Dewitte, Siegfried      | 1.1      |
| Block, Lauren          | 2.2           | Dhar, Ravi              | 8.3      |
| Boerstler, Courtney N. | 7.2           | Diehl, Kristin          | 5.1      |
| Bond, Samuel           | 1.3           | Dimofte, Claudiu V.     | 4.1      |
| Bonifield, Carolyn     | 8.5           | Ding, Min               | 5.5      |
| Botti, Simona          | 7.1           | Drolet, Aimee           | 4.2      |
| Boush, David M.        | 7.2           | Droms, Courtney M.      | 6.3      |
| Boyd, D. Eric          | 2.4           | Du, Shuili              | 6.4      |
| Brendl, Miguel         | 1.3           | Duhachek, Adam          | 6.5      |
| Briñol, Pablo          | 6.2           | Edson Escalas, Jennifer | 5.4      |
| Broniarczyk, Susan     | 2.4           | Eisenstein, Eric        | 6.1      |
| Brumbaugh, Anne        | 8.4           | Erickson, Lance-Michael | 8.1      |
| Brunel, Frederic       | 2.2           | Fishbach, Ayelet        | 4.4      |
| Bruyneel, Sabrina      | 1.1           | Fitzsimons, Gavan       | 7.4      |
| Burroughs, James E.    | 6.4           | Foley, Linda            | 3.2      |
| Calder, Bobby J.       | 5.4           | Frederick, Shane        | 3.4      |
| Carlson, Kurt A.       | 8.2           | Galak, Jeff             | 2.5      |
| Carvalho, Sergio       | 7.5           | Gao, Leilei             | 6.1      |
| Cauberghe, Verolien    | 5.1           | Gershoff, Andrew D.     | 7.1      |
| Chakravarti, Amitav    | 4.4           | Gneezy, Ayelet          | 3.1      |
| Chakravarti, Dipankar  | 1.5, 4.3, 5.5 | Godek, John             | 3.2      |
| Chang, Hannah          | 1.4           | Goldstein, Noah J.      | 5.3      |
| Chartrand, Tanya       | 7.4           | Goodman, Joseph K.      | 2.2      |
| Chattopadhyay, Amitava | 1.3, 3.4      | Greenleaf, Eric         | 3.5      |
| Chen, Johnny           | 7.2           | Grewal, Rajdeep         | 5.1      |
| Chernev, Alexander     | 4.4           | Grier, Sonya A.         | 8.4      |

|                            |               |                          |          |
|----------------------------|---------------|--------------------------|----------|
| Griskevicius, Vladas       | 5.3, 6.1      | Madrigal, Robert         | 3.1, 7.2 |
| Gunasti, Kunter            | 5.5           | Maheswaran, Durairaj     | 2.1, 3.5 |
| Hagtvedt, Henrik           | 2.2           | Maimaran, Michal         | 2.1, 4.4 |
| Han, Ingoo                 | 7.1           | Maity, Moutusi           | 8.5      |
| Haws, Kelly L.             | 5.2, 6.3      | Makienko, Igor           | 3.2      |
| Herr, Paul M.              | 1.3           | Malaviya, Prashant       | 8.2      |
| Herrmann, Andreas          | 2.1           | Malthouse, Edward M.     | 5.4      |
| Hoffman, Donna             | 3.1           | Mandel, Naomi            | 4.2, 8.5 |
| Hong, Jiewen               | 1.4           | Mao, Huifang             | 2.3      |
| Hood, Karen                | 8.4           | Massiah, Carolyn         | 4.5      |
| Iacobucci, Dawn            | 5.4           | Mathur, Pragya           | 2.1      |
| Irvin, Nat                 | 8.4           | Mazar, Nina              | 2.5      |
| Itzkowitz, Jesse           | 2.1           | Mazursky, David          | 8.2      |
| Iyer, Ganesh               | 2.5           | McCarthy, Michael        | 4.1      |
| Janakiraman, Narayan       | 2.4           | McClure, Samuel          | 5.3      |
| Janiszewski, Chris         | 2.1, 4.4, 8.2 | McGraw, A. Peter         | 3.2      |
| Janssens, Wim              | 7.2           | Menon, Geeta             | 6.2      |
| Kachersky, Luke            | 1.1           | Meyer, Robert J.         | 2.4      |
| Kahn, Barbara E.           | 3.5           | Miller, Geoffrey F.      | 6.1      |
| Katsikeas, Constantine     | 3.1           | Mishra, Arul             | 3.3      |
| Kay, Aaron C.              | 7.4           | Mitchell, Andy           | 6.2      |
| Kenrick, Douglas T.        | 6.1           | Mitchell, Vincent Wayne  | 3.1      |
| Khan, Uzma                 | 8.3           | Mittelman, Mauricio      | 1.3      |
| Kiesler, Tina              | 6.3           | Montoya, Detra Y.        | 8.5      |
| Kim, Hyeong Min            | 1.1           | Morrin, Maureen          | 1.2, 3.5 |
| Kim, JungKeun              | 4.1           | Morwitz, Vicki           | 6.2, 7.4 |
| Kim, Kyeongheui            | 4.1           | Mukherjee, Ashesh        | 7.1      |
| Kim, Sara                  | 7.1           | Mukhopadhyay, Anirban    | 7.1      |
| Kivetz, Ran                | 1.4, 7.3, 8.3 | Murray, Kyle             | 3.2      |
| Klein Pearo, Lisa          | 4.3           | Nayakankuppam, Dhananjay | 3.3      |
| Kocher, Bruno              | 4.1           | Nelson, Leif D.          | 2.5      |
| Kramer, Thomas             | 2.2           | Norton, Michael I.       | 1.5      |
| Krishna, Aradhna           | 1.2, 3.5      | Novemsky, Nathan         | 3.3      |
| Krishnan, H. Shanker       | 4.5, 5.5      | Nowlis, Stephen M.       | 4.2, 8.5 |
| Kulkarni, Atul             | 1.1           | Ordóñez, Lisa            | 2.4      |
| LaBarge, Monica            | 7.2           | Otnes, Cele C.           | 1.1      |
| Labroo, Aparna             | 6.5           | Özsomer, Ayşegül         | 7.5      |
| Lakshmanan, Arun           | 5.5           | Page, Christine          | 1.3      |
| Lalwani, Ashok K.          | 2.3, 7.5      | Palmeira, Mauricio       | 5.2      |
| Laran, Juliano             | 8.2           | Park, Do-Hyung           | 7.1      |
| Lee, Angela Y.             | 1.4           | Park, Hyun Soon          | 7.5      |
| Lee, Leonard               | 3.4           | Park, Jongwon            | 4.1      |
| Lee-Wingate, Sooyeon Nikki | 8.1           | Patrick, Vanessa         | 2.2      |
| Levav, Jonathan            | 1.4           | Peck, Joann              | 1.2, 4.3 |
| Liang, Minli               | 5.3           | Peracchio, Laura A.      | 5.3      |
| Liu, Wendy                 | 4.4           | Petty, Richard E.        | 6.2      |
| Loewenstein, George        | 7.3           | Pfeiffer, Bruce E.       | 1.3      |
| Loroz, Peggy Sue           | 3.3           | Pham, Michel Tuan        | 1.4      |
| Luce, Mary Frances         | 1.3           | Pocheptsova, Anastasiya  | 3.3      |
| Lwin, May                  | 1.2           | Poynor, Cait             | 2.2, 5.1 |

|                          |                    |                           |               |
|--------------------------|--------------------|---------------------------|---------------|
| Puccinelli, Nancy M.     | 4.2                | Walker Naylor, Rebecca    | 4.2, 6.3      |
| Puligadda, Sanjay        | 5.1                | Wan, Fang                 | 8.1           |
| Pulkinnen, Ewa           | 6.1                | Wan, Wen                  | 1.4           |
| Puntoni, Stefano         | 7.3                | Wang, Jing                | 5.4           |
| Raghubir, Priya          | 3.5                | Wang, Kai-Yu              | 5.3           |
| Raghunathan, Rajagopal   | 4.2                | Wertenbroch, Klaus        | 3.4           |
| Ratneshwar, S. Ratti     | 6.4                | Wessels, Gunter           | 4.5           |
| Rick, Scott              | 7.3                | Wheeler, Christian        | 2.1, 6.1, 7.4 |
| Riis, Jason              | 5.3                | White, Katherine          | 2.3           |
| Rindfleisch, Aric        | 6.4                | Wigboldus, Daniel         | 4.3           |
| Rose, Gregory            | 3.2                | Wiggins Johnson, Jennifer | 1.2, 4.3      |
| Ross Jr., William T.     | 5.1                | Winkworth, Violetta       | 3.1           |
| Roster, Catherine        | 5.2                | Wirtz, Jochen             | 1.2           |
| Rucker, Derek D.         | 6.2, 6.5           | Wong, Nancy               | 6.4           |
| Rugar, Yael Zemack       | 6.5                | Xie, Guang-Xin            | 7.2           |
| Ruth, Julie A.           | 1.1                | Yalch, Richard F.         | 4.1           |
| Saaksjarvi, Maria        | 6.1                | Yang, Xiaojing            | 2.3           |
| Samu, Sridhar            | 6.3                | Yi, Sunghwan              | 2.1           |
| Schaffner, Dorothea      | 2.1                | Yoon, Sukki               | 7.5           |
| Schumann, David W.       | 8.4                | Yordanova, Gergana        | 5.3           |
| Sen, Sankar              | 6.4                | Zhang, Jiao               | 8.3           |
| Shafir, Eldar            | 3.2                | Zhang, Jing               | 4.5           |
| Shavitt, Sharon          | 2.3                | Zhao, Shenghui            | 5.2           |
| Shiv, Baba               | 2.5, 6.1, 7.4, 8.3 | Zhao, Terry               | 8.5           |
| Simonsohn, Uri           | 1.5                | Zheng, Yuhuang            | 7.3, 8.3      |
| Simonson, Itamar         | 4.4                | Zhou, Rongrong            | 5.2           |
| Slejkó, Gina             | 1.2                | Zinkhan, George M.        | 8.5           |
| Small, Deborah A.        | 1.5                |                           |               |
| Smeesters, Dirk          | 7.4                |                           |               |
| Smidts, Ale              | 4.3                |                           |               |
| Soman, Dilip             | 3.4, 8.3           |                           |               |
| Steinhart, Yael          | 8.2                |                           |               |
| Sternthal, Brian         | 1.4                |                           |               |
| Stewart, David           | 7.1                |                           |               |
| Stokburger-Sauer, Nicola | 6.4                |                           |               |
| Strahilevitz, Michal     | 1.5                |                           |               |
| Sundie, Jill M.          | 6.1                |                           |               |
| Sweldens, Steven         | 7.3                |                           |               |
| Tavassoli, Nader         | 7.3                |                           |               |
| Thomas, Manoj            | 6.2, 7.4           |                           |               |
| Todorov, Alexander       | 3.2                |                           |               |
| Torelli, Carlos J.       | 7.5                |                           |               |
| Tuk, Mirjam              | 4.3                |                           |               |
| Tuncay, Linda            | 1.1                |                           |               |
| Tybur, Joshua M.         | 6.1                |                           |               |
| Ülkümen, Gülden          | 4.4                |                           |               |
| Valenzuela, Ana          | 7.2                |                           |               |
| Vargas, Patrick          | 7.5                |                           |               |
| Verlegh, Peeter          | 4.3                |                           |               |
| Vosgerau, Joachim        | 2.5                |                           |               |