

SCP 2012 Las Vegas

Welcome to SCP 2012!

We are delighted that you are here in Las Vegas to participate in the Society for Consumer Psychology's Annual Winter Conference 2012. We were overwhelmed by the number of high quality submissions (over 25% more than last year!) for the conference from around the world. This promises to be an exciting and intellectually stimulating conference! This year, the keynote speakers will be Max Bazerman (Harvard) and Eldar Shafir (Princeton). We also have the pleasure of featuring an SCP Fellow's address by C. W. Park, recipient of the SCP Fellowship in recognition of his outstanding contribution to the field of consumer psychology.

The theme for this year's conference is **"Conversations"**, which highlights, we hope, the SCP conference's uniqueness as a forum that facilitates research dialogues. The conference program that you hold includes not only Symposia, Individual Papers, and Working Papers, but also a new type of session called "Conversations" that we hope will compete (successfully) against the usual distractions of Vegas. These eight sessions, centered on topics of current interest to consumer psychologists, each feature a panel of three or four leading researchers in the field. The panelists will start the conversation off with short presentations on what they think are the interesting questions in this area. After all panelists have had their say, the floor will be thrown open – panelists can ask questions to each other and the audience can ask questions to the panelists – leading to what we hope will be a highly stimulating and thought provoking Conversation.

We would like to extend our sincere thanks to the many reviewers, authors, presenters, discussants and volunteers that have helped ensure a terrific conference program. We are deeply grateful to SCP president Vicki Morwitz for her many efforts and assistance throughout the year, and to Larry Compeau for his vision and patience throughout this process. We would also like to thank Rashmi Adaval and Jesper Nielsen for their outstanding job in organizing the SCP Doctoral Consortium, which is in its fourth year and is underwritten by funds from Jane and David Schumann. We also wish to thank Paul Belcastro, Agnes Chan, Aleksey Cherfas, and Patty Salo Downs for their behind-the-scenes efforts in supporting this year's conference. Finally, we would like to thank our sponsors, including the HKUST Business School, for their support.

We are very grateful to have such wonderful contributions from so many people for the benefit of the Society. This is truly your conference and we hope you enjoy SCP 2012!

Let's roll!

[INSERT SIGNATURE]

Amitav Chakravarti
London School of Economics
& Political Science

[INSERT SIGNATURE]

Anirban Mukhopadhyay
Hong Kong University of Science
& Technology

SOCIETY FOR CONSUMER PSYCHOLOGY 2012 ANNUAL WINTER CONFERENCE

PRESIDENT 2011-2012

Vicki Morwitz, New York University

CONFERENCE CHAIRS

Amitav Chakravarti, London School of Economics and Political Science
Anirban Mukhopadhyay, Hong Kong University of Science and Technology

DOCTORAL CONSORTIUM CHAIRS

Rashmi Adaval, Hong Kong University of Science and Technology
Jesper H. Nielsen, University of Arizona

PROGRAM COMMITTEE

Jennifer Argo, University of Alberta
Rajesh Bagchi, Virginia Tech
Lisa E. Bolton, Pennsylvania State University
Simona Botti, London Business School
Katherine Burson, University of Michigan
Elaine Chan, Tilburg University
Elise Chandon Ince, Virginia Tech
Marcus Cunha Jr, University of Georgia
Amy Dalton, HKUST
Utpal Dholakia, Rice University
Kristin Diehl, University of Southern California
Rosellina Ferraro, University of Maryland
Vladas Griskevicius, University of Minnesota
Rebecca Hamilton, University of Maryland
Kelly Haws, Texas A&M University
JoAndrea Hoegg, University of British Columbia
Jiewen Hong, HKUST
Iris W. Hung, National University of Singapore
Yuwei Jiang, Hong Kong Polytechnic University
Anat Keinan, Harvard University
Aparna Labroo, University of Toronto
Juliano Laran, University of Miami
Robyn LeBoeuf, University of Florida
Leonard Lee, Columbia University
Wendy Liu, UC San Diego
Naomi Mandel, Arizona State University
Nina Mazar, University of Toronto
Brent McFerran, University of Michigan
A. Peter McGraw, University of Colorado
Tom Meyvis, New York University
Elizabeth G. Miller, University of
Massachusetts-Amherst
Arul Mishra, University of Utah

Himanshu Mishra, University of Utah
Alokparna (Sonia) Monga, University of South
Carolina
Ashwani Monga, University of South Carolina
Andrea Morales, Arizona State University
Kyle B. Murray, University of Alberta
Leif D. Nelson, UC Berkeley
Gergana Y. Nenkov, Boston College
Michael I. Norton, Harvard University
Vanessa Patrick, University of Houston
Hilke Plassmann, INSEAD
Anastasiya Pocheptsova, University of Maryland
Stefano Puntoni, Erasmus University Rotterdam
Anne Roggeveen, Babson College
Derek D. Rucker, Northwestern University
Ayalla Ruvio, Temple University
Hao Shen, Chinese University of Hong Kong
David H. Silvera, University of Texas at San Antonio
Manoj Thomas, Cornell University
Carlos Torelli, University of Minnesota
Zakary Tormala, Stanford University
Claire Tsai, University of Toronto
Gülden Ülkümen, University of Southern California
Rebecca Walker Naylor, Ohio State University
Jing Wang, Singapore Management University
Katherine White, University of British Columbia
Tiffany Barnett White, University of Illinois
Catherine Yeung, National University of Singapore
Ying Zhang, University of Texas at Austin
Min Zhao, University of Toronto
Rongrong Zhou, HKUST
Rui (Juliet) Zhu, University of British Columbia

INDIVIDUAL PAPER AND WORKING PAPER REVIEWERS

Lisa Abendroth, University of St. Thomas
 Joshua Ackerman, MIT
 Hee-Kyung Ahn, Hanyang University
 Hongmin Ahn, West Virginia University
 Pia A. Albinsson, Appalachian State University
 Susan Andrzejewski, Franklin & Marshall College
 Tamara Ansons, University of Michigan
 Stuart Anne, American International College
 Jennifer Argo, University of Alberta
 Ashley Rae Arsenau, University of Texas at San Antonio
 Ioannis Assiouras, University of Toulouse
 Tatiana Astray, University of Guelph
 Stephen Atlas, Columbia University
 S. Sinem Atakan, Ozyegin University
 A. Selin Atalay, HEC Paris
 Sharmin Attaran, Bryant University
 Aylin Aydinli, London Business School
 Rajesh Bagchi, Virginia Tech
 Sachin Banker, MIT
 Adina Barbulescu, University of Tennessee
 Wilson Bastos, University of Arizona
 Colleen Bee, Oregon State University
 Christine Bennett, University of St. Thomas
 Jonathan Berman, University of Pennsylvania
 Mariam Beruchashvili, California State University
 Barbara Bickart, Boston University
 Sean Blair, Northwestern University
 Simon J. Blanchard, Georgetown University
 Wendy A. Boland, American University
 Lisa E. Bolton, Pennsylvania State University
 Samuel Bond, Georgia Tech University
 Carolyn Bonifield, University of Vermont
 Silvio Borrero, Icesi University
 Simona Botti, London Business School
 S. Adam Brasel, Boston College
 Eric Brey, University of Memphis
 Neil Brigden, University of Alberta
 Julie Edell Britton, Duke University
 Aaron R. Brough, Pepperdine University
 Thomas A. Brunner, ETH Zürich
 Eva Buechel, University of Miami
 Katherine Burson, University of Michigan
 Ivana Busljeta Banks, Zagreb School of Economics and Management
 Heather Buttle, Massey University
 Elke Cabooter, Ghent University
 Troy Campbell, Duke University
 Jennifer Carmichael, Altisource Portfolio Solutions
 Marina Carnevale, CUNY
 Iana Castro, San Diego State University
 Jesse Catlin, UC Irvine
 Veroline Caubergh, Ghent University
 Rajdeep Chakraborti, IBS, Hyderabad
 Cindy Chan, University of Pennsylvania
 Elaine Chan, Tilburg University
 Zoe Chance, Harvard University
 Elise Chandon Ince, Virginia Tech
 Chiu-chi Angela Chang, Shippensburg University
 Lan Chaplin, Villanova University
 Promothesh Chatterjee, University of Kansas
 Anne-Sophie Chaxel, Cornell University
 Fangyuan Chen, HKUST
 Jiemiao Chen, Monash University
 Rongjuan Chen, Stevens Institute of Technology
 Zoey Chen, Georgia Tech
 Hsu Hsien Chi, Shih Hsin University
 Sydney Chinchanchokchai, University of Illinois
 Cecile Cho, UC Riverside
 Eunice Kim Cho, University of Toronto
 Sunmyoung Cho, Yonsei University
 Yoon-Na Cho, University of Arkansas
 Fabian Christandl, University of Cologne
 Sunaina Chugani, University of Texas at Austin
 Bart Claus, IESEG School of Management
 Erlinde Cornelis, Ghent University
 Larry Compeau, Clarkson University
 Elizabeth Cowley, University of Sydney
 Maria L. Cronley, Miami University
 Cynthia Cryder, Washington University in St. Louis
 Marcus Cunha Jr, University of Georgia
 Sandor Czellar, University of Lausanne
 Amy Dalton, HKUST
 Prakash Das, University of Calgary
 Brennan Davis, Baylor University
 Derick Davis, Virginia Tech
 Matteo De Angelis, Luiss University
 Ilona de Hooge, Erasmus University Rotterdam
 Xiaoyan Deng, Ohio State University
 Siegfried Dewitte, K.U. Leuven
 Utpal Dholakia, Rice University
 Kristin Diehl, University of Southern California
 Claudiu Dimofte, San Diego State University
 John Dinsmore, University of Cincinnati
 Alessandra Distefano, University of Catania
 Kivilcim D. Demir, Sabanci University
 Ping Dong, Chinese University of Hong Kong
 Karolien Driesmans, K.U. Leuven
 David Dubois, Northwestern University
 Brittany Duff, University of Illinois
 Kristina Durante, University of Texas at San Antonio
 Hristina Dzhogleva, University of Pittsburgh
 Jane Ebert, Brandeis University
 Mohammed El Hazzouri, University of Manitoba
 Hounaida El Jurdi, American University of Beirut
 Linda Espinosa, Monterrey Institute of Technology
 Aida Faber, McGill University
 Tatiana Fajardo, University of Miami
 Jean-Mathieu Fallu, HEC Montreal
 Ali Faraji-Rad, BI Norwegian School of Management
 R. Adam Farmer, University of Kentucky
 Alexander (Sasha) Fedorikhin, Indiana University
 Reto Felix, University of Monterrey
 Daniel Fernandes, Erasmus University Rotterdam
 Rosellina Ferraro, University of Maryland
 Anouk Festjens, K. U. Leuven
 Lura Forcum, Indiana University
 Marieke Fransen, University of Amsterdam
 Gary Futrell, University of Southern Mississippi
 David Gal, Northwestern University
 Iñigo Gallo, UCLA
 Marco Galvagno, University of Catania
 Meryl Gardner, University of Delaware

Nitika Garg, University of New South Wales
 Li-Shiue Gau, Asia University
 Brian Gillespie, Washington State University
 John Godek, University of Washington
 Dilney Goncalves, IE Business School
 Joseph Goodman, Washington University in St. Louis
 Ronald Goodstein, Georgetown University
 Margarita Gorlin, Yale University
 Rahul Govind, University of New South Wales
 Jacqueline Granleese, University of East Anglia
 Eric Greenleaf, New York University
 Diana Gregory-Smith, Durham University
 Vladas Griskevicius, University of Minnesota
 Ursula Grisseemann, University of Innsbruck
 Frederick Grouzet, University of Victoria
 Yangjie Gu, London Business School
 Abhijit Guha, Wayne State University
 Xiaoning Guo, University of Cincinnati
 Erin Younhee Ha, University of Illinois
 Eric Hamerman, Tulane University
 Mitchell Hamilton, Syracuse University
 Rebecca Hamilton, University of Maryland
 Sidney Su Han, University of Guelph
 Haiming Hang, University of Reading
 Tracy Harmon, University of Dayton
 Kendra Hart, University of Western Ontario
 Kelly Haws, Texas A&M University
 Stephen Xihao He, Georgia Tech
 Tobias Heilmann, University of Zurich
 Katarina Hellen, University of Vaasa
 Kelly Herd, Indiana University
 Michal Herzenstein, University of Delaware
 Ozlem Hesapci Sanaktekin, Istanbul Bilgi University
 Nico Heuvinck, Ghent University
 Diogo Hildebrand, CUNY
 Elizabeth Hirschman, Rutgers University
 JoAndrea Hoegg, University of British Columbia
 Donna Hoffman, UC Riverside
 Jiewen Hong, HKUST
 Meng-Hua Hsieh, University of Washington
 (Max) Che-Hao Hsu, National Cheng Kung University
 Fan Hu, Hong Kong Baptist University
 Miao Hu, Northwestern University
 Yanliu Huang, Drexel University
 Iris W. Hung, National University of Singapore
 Jamie Hyodo, Pennsylvania State University
 Caglar Irmak, University of South Carolina
 Jayant Isaac, Shivalik Institute of Management
 Education and Research
 Mathew S. Isaac, Northwestern University
 Jesse Itzkowitz, Yeshiva University
 Aarti Ivanic, University of San Diego
 Mazen Jaber, Saginaw Valley State University
 He (Michael) Jia, University of Southern California
 Yuwei Jiang, Hong Kong Polytechnic University
 Kenneth O. Jobson M.D.
 Leslie John, Harvard University
 Heather M. Johnson, University of Maryland
 Chris Joiner, George Mason University
 Jaewoo Joo, University of Toronto
 Bernadette Kamleitner, University of London
 Esther Kang, SUNY Buffalo
 Sommer Kapitan, University of Texas at San Antonio
 Harish Kapoor, Acadia University
 Frank R. Kardes, University of Cincinnati
 Beth Karlin, UC Irvine
 Anat Keinan, Harvard University
 Katie Kelting, University of Arkansas
 Eunice Kim, University of Texas at Austin
 Hae Joo Kim, Wilfrid Laurier University
 Hakkyun Kim, Concordia University
 John Kim, Oakland University
 Jongmin Kim, Yale University
 Rob Kleine, Ohio Northern University
 Anne Klesse, Maastricht University
 Dongwoo Ko, University of Iowa
 Bruno Kocher, HEC Paris
 Markus Kopetzky, University of Paderborn
 Thomas Kramer, University of South Carolina
 Goedele Krekels, Ghent University
 Anjala Krishen, University of Nevada at Las Vegas
 Ann Kronrod, MIT
 Atul Kulkarni, University of Missouri-KC
 Dae Hee Kwak, University of Michigan
 Man Ching Kwan, Chinese University of Hong Kong
 Min A. Kwon, University of Illinois
 Ellie J. Kyung, Dartmouth College
 Monica LaBarge, Queens University
 Aparna Labroo, University of Toronto
 Joseph Lajos, HEC Paris
 Karen Lancendorfer, Western Michigan University
 Ryan Langan, University of South Florida
 Juliano Laran, University of Miami
 John Lastovicka, Arizona State University
 Robert Latimer, New York University
 Gilles Laurent, HEC Paris
 Robyn LeBoeuf, University of Florida
 Kelly (Kiyoon) Lee, University of Toronto
 Leonard Lee, Columbia University
 Wonkyong Beth Lee, University of Western Ontario
 Yun Lee, University of Iowa
 Christophe Lembregts, Ghent University
 En Li, CQ University
 Xingbo Li, University of Washington
 Ye Li, Columbia University
 Jianping Liang, Sun Yat-sen University
 Shuling Liao, Yuan Ze University
 Kar Ho Lim, University of Kentucky
 Lily Lin, University of British Columbia
 MengHsien (Jenny) Lin, Iowa State University
 Fern (Mai Mai) Lin-Healy, Auburn University
 Ab Litt, Stanford University
 Min Liu, University of Texas at San Antonio
 Richie Liu, Washington State University
 Shi Liu, University of Tennessee, Knoxville
 Wendy Liu, UC San Diego
 Chris Long, Ouachita Baptist University
 Inés López, Miguel Hernández University
 Peggy Sue Loroz, Gonzaga University
 Sara Loughran Dommer, University of Pittsburgh
 Katherine Loveland, HEC Montreal
 Tina M. Lowrey, University of Texas at San Antonio
 Fang-Chi Lu, University of Iowa
 Cuauhtemoc Luna-Nevarez, New Mexico State
 University
 Yuliya Lutchny, University of Tennessee
 Rhiannon MacDonnell, University of Calgary
 Sreedhar Madhavaram, Cleveland State University

Robert Madrigal, University of Oregon
 Sam Maglio, New York University
 Sabita Mahapatra, Indian Institute of Management
 Igor Makienko, University of Nevada at Reno
 Selin Malkoc, Washington University in St. Louis
 Anne-Flore Maman, ESSEC
 Srikant Manchiraju, Iowa State University
 Naomi Mandel, Arizona State University
 Antonia Mantonakis, Brock University
 Daniele Mathras, Arizona State University
 Pragya Mathur, CUNY
 Nina Mazar, University of Toronto
 Michael McCarthy, Miami University
 Brent McFerran, University of Michigan
 A. Peter McGraw, University of Colorado
 James Mead, University of Kentucky
 Katrien Meert, Ghent University
 Ravi Mehta, University of Illinois
 Claude Messner, University of Bern
 Tom Meyvis, New York University
 Elizabeth G. Miller, University of
 Massachusetts-Amherst
 Kyeong Sam Min, University of New Orleans
 Giulia Miniero, Bocconi University
 Arul Mishra, University of Utah
 Himanshu Mishra, University of Utah
 Dick Mizerski, University of Western Australia
 Daniel Mochon, Tulane University
 Praggyan Mohanty, Governors State University
 Alokparna (Sonia) Monga, University of South Carolina
 Ashwani Monga, University of South Carolina,
 Nicole Montgomery, College of William and Mary
 Detra Montoya, University of Washington
 Sarah Moore, University of Alberta
 Andrea Morales, Arizona State University
 Jill Mosteller, Portland State University
 Mehdi Mourali, University of Calgary
 James A. Mourey, University of Michigan
 Ruth Mugge, Delft University of Technology
 Mudra Mukesh, IE Business School
 Sayantani Mukherjee, California State University, Long
 Beach
 Nira Munichor, Hebrew University of Jerusalem
 Kyle B. Murray, University of Alberta
 Prathamesh Muzumdar, University of Texas-Arlington
 Iman Naderi, University of North Texas
 Nada Nasr Bechwati, Bentley University
 Leif D. Nelson, UC Berkeley
 Gergana Y. Nenkov, Boston College
 Jia Yun Ng, Monash University
 Leonardo Nicolao, Texas Christian University
 Mihai Niculescu, New Mexico State University
 David Norton, University of South Carolina
 Michael I. Norton, Harvard University
 James Oakley, University of North Carolina
 Michael Obal, Temple University
 Nailya Ordabayeva, Erasmus University Rotterdam
 Mujdat Ozmen, Eskisehir Osmangazi University
 Grant Packard, University of Michigan
 Karen Page Winterich, Pennsylvania State University
 Ethan Pancer, Queen's University
 Mario Pandelaere, Ghent University
 Joseph Paniculagara, Alfred University
 Hyun Young Park, New York University
 Hyunhee Park, Kyungpook National University
 Jeffrey Parker, Georgia State University
 Vanessa Patrick
 Dikla Perez, Haifa University
 Michael Petrochuk, Walsh University
 Bruce E. Pfeiffer, University of New Hampshire
 Christian Pinson, INSEAD
 Hilke Plassmann, INSEAD
 Morgan Poor, Indiana University
 Monica Popa, University of Saskatchewan
 Keiko Powers, MarketShare
 John Pracejus, University of Alberta
 Michael Proksch, CAU Kiel
 Rogelio Puente, Universidad Anáhuac
 Sanjay Puligadda, Miami University
 Stefano Puntoni, Erasmus University Rotterdam
 Martin Pyle, Queen's University
 Simon Quaschnig, University College Ghent - Ghent
 University
 Priyali Rajagopal, Southern Methodist University
 Sekar Raju, Iowa State University
 Seshan Ramaswami, Singapore Management University
 Priyamvada Rangan, University of Kansas
 Kamran Razmdoost, Cranfield School of Management
 Renée Richardson Gosline, MIT
 Scott Rick, University of Michigan
 Jason Riis, Harvard University
 Shannon Rinaldo, Texas Tech University
 Torsten Ringberg, Copenhagen Business School
 Nicole Robitaille, University of Toronto
 Anne Roggeveen, Babson College
 Jose Antonio Rosa, University of Wyoming
 Caroline Roux, Northwestern University
 Rajat Roy, Curtin University
 Derek D. Rucker, Northwestern University
 Salvador Ruiz, University of Murcia
 Pamela Rutledge, Fielding Graduate University
 Ayalla Ruvio, Temple University
 Christina Saenger, Kent State University
 John Sailors, University of St. Thomas
 Ritesh Saini, University of Texas at Arlington
 Julian Saint Clair, University of Washington
 Anthony Salerno, University of Miami
 Linda Court Salisbury, Boston College
 Geetanjali Saluja, HKUST
 Adriana Samper, Duke University
 Vinita Sangtani, North Georgia College and State
 University
 Shelle Santana, New York University
 Gülen Sarial-Abi, Koc University
 Dorothea Schaffner, Lucerne University of Applied
 Sciences
 Ann Schlosser, University of Washington
 Rom Schrift, University of Pennsylvania
 Irene Scopelliti, Carnegie Mellon University
 Aner Sela, University of Florida
 Joon Yong Seo, SUNY Brockport
 Julio Sevilla, University of Miami
 Avni Shah, Duke University
 Jen Shang, Indiana University
 Yaniv Shani, Tel Aviv University
 Stewart Shapiro, University of Delaware
 Eesha Sharma, New York University
 Narendra Sharma, IIT Kanpur

Hao Shen, Chinese University of Hong Kong
 L. J. Shrum, University of Texas at San Antonio
 Jeremy Sierra, Texas State University at San Marcos
 David H. Silvera, University of Texas at San Antonio
 Gary Sinclair, Dublin Institute of Technology
 Jayati Sinha, University of Arizona
 Karen Smith, Texas State University-San Marcos
 Outi Somervuori, Aalto University
 Robin Soster, University of Arkansas
 David E. Sprott, Washington State University
 Antonios Stamatogiannakis, IE Business School
 Mark Staton, Skidmore College
 Mary Steffel, University of Florida
 Yael Steinhart, University of Haifa
 Harish Sujjan, Tulane University
 Aparna Sundar, University of Cincinnati
 Jill Sundie, University of Texas at San Antonio
 Yongjun Sung, University of Texas at Austin
 Abigail B. Sussman, Princeton University
 Steven Sweldens, INSEAD
 Ilona Szöcs, Vienna University of Economics and
 Business
 Chenying Tang, Emory University
 Andrea Tangari, Wayne State University
 Karin Teichmann, University of Innsbruck
 Manoj Thomas, Cornell University
 Matthew Thomson, University of Western Ontario
 Carlos Torelli, University of Minnesota
 Zakary Tormala, Stanford University
 Maferima Touré-Tillery, University of Chicago
 Claudia Townsend, University of Miami
 Kristin Trask, University of Texas at San Antonio
 Remi Trudel, Boston University
 Rebecca K. Trump, Loyola University
 Claire Tsai, University of Toronto
 Mirjam Tuk, Imperial College Business School
 Gülden Ülkümen, University of Southern California
 Oleg Urminsky, University of Chicago
 Dieneke Van de Sompel, University College Ghent
 Ellis van den Hende, University of Amsterdam
 Femke van Horen, University of Cologne
 Patrick Vargas, University of Illinois
 Peeter Verlegh, Erasmus University Rotterdam
 Loredana Viola, WU Vienna

Martin K. J. Waiguny, Alpen-Adria University at
 Klagenfurt
 Rebecca Walker Naylor, Ohio State University
 Darlene Walsh, Concordia University
 Chih-Ping Wang, National Chengchi University
 Jing Wang, Singapore Management University
 Juan Wang, University of Western Ontario
 Zhi Wang, Hong Kong Baptist University
 Brooke Ward, Naked Communications
 Lisa Watson, University of Regina
 Kimberlee Weaver, Virginia Tech
 Liad Weiss, Columbia University
 Katherine White, University of British Columbia
 Tiffany B. White, University of Illinois
 Keith Wilcox, Babson College
 Elanor Williams, University of Florida
 Patti Williams, University of Pennsylvania
 Megan Witmer, University of Michigan
 Scott Wright, University of Cincinnati
 Hong Xiao, Durham Business School
 Na Xiao, University of Winnipeg
 Guang-Xin Xie, University of Massachusetts Boston
 Qian Xu, Fudan University
 Haiyang Yang, INSEAD
 Linyun Yang, University of North Carolina, Charlotte
 Marie Yeh, Kent State University
 Catherine Yeung, National University of Singapore
 Carolyn Yoon, University of Michigan
 Ozge Yucel-Aybat, Baruch College
 Melanie E. Zaglia, University of Michigan & University
 of Innsbruck
 Yael Zemack-Rugar, Virginia Tech
 Charles Y.Z. Zhang, University of Michigan
 Jing Zhang, San Jose State University
 Kuangjie Zhang, INSEAD
 Ying Zhang, University of Texas at Austin
 Guangzhi Zhao, University of Kansas
 Min Zhao, University of Toronto
 Guzhen Zhou, University of Kentucky
 Rongrong Zhou, HKUST
 Meng Zhu, Johns Hopkins University
 Rui (Juliet) Zhu, University of British Columbia
 Natalina Zlatevska, Bond University

Special Thanks To

Stephen Atlas, Columbia University
 Paul Belcastro, Indiana University
 Agnes Chan, HKUST
 Fangyuan Chen, HKUST
 Larry Compeau, Clarkson University
 Arti Gandhi, University of Arizona

Wilson Neto, University of Arizona
 Kevin Newman, University of Arizona
 Geetanjali Saluja, HKUST
 Ainslie Schultz, University of Arizona
 Nicholas Reinholtz, Columbia University
 Tingting Wang, HKUST

Conference Coordinator

Patty Salo Downs

SCP Conference Webmaster

Aleksey Cherfas, ChilleeSys, Inc.

Cover Art

Julie Martin

Thursday, 16 February 2012

Working Paper Session 1

6:15 pm - 7:45 pm

Four Seasons Ballrooms 1, 2 & 3

Friday, 17 February 2012

SESSION 1

8:00 am - 9:15 am

- 1.1 *Symposium: Selfish Consumers: Prosociality and (Im)Morality in Forecasts and Behavior* (Four Seasons Ballroom 1)
- 1.2 *Individual Papers: Follow the Yellow Brick Road: Goals and Goal-Directed Behavior* (Four Seasons Ballroom 2)
- 1.3 *Symposium: What's Outside the Box Helps to Think Out of the Box: Interplay between Incidental Environmental Contexts and Creativity* (Desert Willow)
- 1.4 *Individual Papers: Gentlemen Prefer Blondes: Judgment and Decision-Making* (Palo Verde)
- 1.5 *Symposium: Taken back into Context: How Brand Evaluations are Affected by the Competitive Context and Affect Subsequent Consumer Behavior* (Cottonwood)
- 1.6 *Individual Papers: Save a Horse, Ride a Cowboy: Persuasion* (Mesquite 2)
- 1.7 *Conversations: Sensations* (Mesquite 1)

SESSION 2

9:30 am - 10:45 am

- 2.1 *Symposium: Balancing Multiple Goals in Social Consumption* (Four Seasons Ballroom 1)
- 2.2 *Individual Papers: Look at Me, I'm Sandra Dee: Visual Psychology* (Four Seasons Ballroom 2)
- 2.3 *Symposium: Online Social Networks: Why do People Use them and What are their Consequences?* (Desert Willow)
- 2.4 *Individual Papers: Don't Cry for Me: Sadness and other Emotions* (Palo Verde)
- 2.5 *Individual Papers: What a Wonderful World: Knowledge, Attitudes, and Beliefs* (Cottonwood)
- 2.6 *Individual Papers: Sunrise, Sunset: Services and Wait Management* (Mesquite 2)
- 2.7 *Conversations: Time and Money* (Mesquite 1)

PLENARY SESSION 1 – Eldar Shafir, Princeton University:

"On the Psychology of Scarcity"

11:15 am - 12:15 pm

Four Seasons Ballrooms 1 & 2

SESSION 3

2:15 pm - 3:30 pm

- 3.1 Symposium: Of Time, Temperature, Taste, and Touch: Integrating Perspectives on Grounded Cognition (Four Seasons Ballroom 1)**
- 3.2 Individual Papers: You're a Mean One, Mr. Grinch: Prosociality (Four Seasons Ballroom 2)**
- 3.3 Symposium: The Ghosts of One's Past, Present, and Future: Examining Indulgent Choice Based on Thoughts from Different Temporal Perspectives (Desert Willow)**
- 3.4 Individual Papers: SCP Dissertation Proposal Competition Award Winners (Palo Verde)**
- 3.5 Symposium: The Effect of Individual and Contextual Factors on Food Consumption (Cottonwood)**
- 3.6 Individual Papers: Money, Money, Money (Mesquite 2)**
- 3.7 Conversations: Feelings (Mesquite 1)**

SESSION 4

3:45 pm - 5:00 pm

- 4.1 Symposium: Social Environment and Happiness (Four Seasons Ballroom 1)**
- 4.2 Individual Papers: My Way: The Consumer's Self (Four Seasons Ballroom 2)**
- 4.3 Symposium: Directed by The "Outer Brain": Haptic Experience in Consumer Judgment and Decision Making (Desert Willow)**
- 4.4 Individual Papers: Can't Buy Me Love: Pricing (Palo Verde)**
- 4.5 Individual Papers: All That Meat and No Potatoes: Self-Regulation (Cottonwood)**
- 4.6 Individual Papers: Any Dream Will Do: Judgment and Decision Making (Mesquite 2)**
- 4.7 Conversations: Helping Consumers (Mesquite 1)**

Working Paper Session 2

6:00 pm - 7:30 pm

Acacia Ballrooms 1 & 2

Saturday, 18 February 2012

SESSION 5

8:00 am - 9:15 am

- 5.1 Symposium: Back to the Future: New Directions in Temporal Framing for Consumer Judgments (Four Seasons Ballroom 1)**
- 5.2 Individual Papers: Wouldn't it be Lovely: Materialism (Four Seasons Ballroom 2)**
- 5.3 Symposium: Powerfulness and Powerlessness: Situational and Cultural Moderators of the Consequences for Branding and Consumer Satisfaction (Desert Willow)**
- 5.4 Individual Papers: A Little Less Conversation: Embodied Cognition (Palo Verde)**
- 5.5 Symposium: Visual Psychology: Consumer Attention, Perception, and Action Within Marketing Media (Cottonwood)**
- 5.6 Individual Papers: Me and My Monkey: All Things Social (Mesquite 2)**
- 5.7 Conversations: Motivation (Mesquite 1)**

SESSION 6

9:30 am - 10:45 am

- 6.1 Symposium: On the Psychology of Mindsets in Consumer Behavior: Antecedents and Consequences for Choices and Switching (Four Seasons Ballroom 1)**
- 6.2 Individual Papers: Can't Touch This: Self-Control (Four Seasons Ballroom 2)**
- 6.3 Symposium: New Frontiers in Variety-Seeking Research (Desert Willow)**
- 6.4 Individual Papers: iDon't Know How to Love Him: Brands and their Consumers (Palo Verde)**
- 6.5 Individual Papers: Diamonds Are a Girl's Best Friend: Judgment and Decision-Making (Cottonwood)**
- 6.6 Individual Papers: Ain't Misbehavin': Morality, Power, and Deception (Mesquite 2)**
- 6.7 Conversations: Social Influences (Mesquite 1)**

PLENARY SESSION 2 – Max Bazerman, Harvard Business School:

"Bounded Ethicality"

11:15 am - 12:15 pm

Four Seasons Ballrooms 1 & 2

SESSION 7

2:15 pm - 3:30 pm

- 7.1 Symposium: What Determines Justifiability? The Psychology of Justification (Four Seasons Ballroom 1)**
- 7.2 Individual Papers: If I Only Had a Heart: Emotions (Four Seasons Ballroom 2)**
- 7.3 Symposium: Numerical Cognition: The Interpretation of Numerical Information and Downstream Consequences for Consumer Behavior (Desert Willow)**
- 7.4 Individual Papers: Believe: Persuasion (Palo Verde)**
- 7.5 Symposium: On Shaky Ground: Exploring Materialism and Insecurity (Cottonwood)**
- 7.6 Individual Papers: Can You Feel the Love Tonight: Sensations and Embodied Cognition (Mesquite 2)**
- 7.7 Conversations: Automaticity (Mesquite 1)**

SESSION 8

3:45 pm - 5:00 pm

- 8.1 Symposium: Price Psychology: Advances on Context Effects in Pricing Research (Four Seasons Ballroom 1)**
- 8.2 Individual Papers: Over the Rainbow: Construal and its Levels (Four Seasons Ballroom 2)**
- 8.3 Symposium: Leaving Money on the Table: Situational Factors that Impair Financial Judgment and Decision Making (Desert Willow)**
- 8.4 Individual Papers: I'd Be Surprisingly Good for You: Recommendations (Palo Verde)**
- 8.5 Individual Papers: Lucy in the Sky with Diamonds: The Sensory Side (Cottonwood)**
- 8.6 Individual Papers: Food Glorious Food (Mesquite 2)**
- 8.7 Conversations: Reviewing (Mesquite 1)**

Working Papers: Working Paper Session 1

1. *To Recall or Not To Recall a Flawed Product: Corporate Responses and Consumer Perceptions of Toy Recalls*

William Murphy, University of Saskatchewan, Canada

Monica Popa, University of Saskatchewan, Canada*

This research emphasizes that product recalls can be viewed not only from the disaster-mitigation perspective adopted by prior literature, but also as opportunities for firms to realize market benefits by engaging in responsible behavior, forging better relationships with customers. We propose and find, in the context of toy recalls, that company response strategies influence consumers' attitudes and purchase intentions, and beneficial effects of recalling a product can arise, particularly when the problem is minor and company's response is strong. Additionally, we find that consumers' search for information following recall news is dependent on the type of product problem encountered.

For more information, contact: popa@edwards.usask.ca

2. *Children's Play Behavior and Resulting Game Choices: Investigating the Influence of Personality, Materialism and Ownership of Products*

Dieneke Van de Sompel, Ghent University, Belgium*

Iris Vermeir, Ghent University, Belgium

Mario Pandelaere, Ghent University, Belgium

This paper distinguishes between two types of play behavior children can prefer: replicating and originating play behavior. In four studies we establish which factors drive children's preference for these play behaviors and how these preferences cause actual game choice. Study 1 shows that cautious and reflective children prefer replicating play behavior. Study 2 shows that the preference for originating or replicating play behavior depends on the ownership of the game (individually versus publicly owned) and indicates that materialistic values sharpen this effect. In study 3 and 4, we find that preference for play behavior affects actual game choice.

For more information, contact: dieneke.vandesompel@hogent.be

3. *Stop Freaking Me Out: The Role of Affect on Efficacy and Framing Interactions*

Jennifer Jeffrey, University of Western Ontario, Canada*

Dante M. Pirouz, University of Western Ontario, Canada

Matthew Thomson, University of Western Ontario, Canada

Services like debt management or health screening often target consumers feeling considerable baseline negative affect. Our study addresses how two commonly used social marketing tactics, message framing and efficacy statements, interact with affect to impact the persuasiveness of marketing messages. Specifically, in the context of debt management, we demonstrate that negative affect eliminates or even reverses the interaction effects previously seen between perceived treatment efficacy and message framing. This research underscores the need for marketers targeting at-risk populations to consider the audience's pre-existing affective state when selecting specific marketing tactics for their campaigns.

For more information, contact: jjeffrey.phd@ivey.ca

4. ***Different Strokes for Different Folks: The Effects of Political Ideology on Choice and Satisfaction***

R. Adam Farmer, University of Kentucky, USA*

Blair Kidwell, University of Kentucky, USA

David Hardesty, University of Kentucky, USA

While the superficial differences between conservatives and liberals are apparent, research has only recently considered their psychological differences. The current research extends our knowledge of political ideology by investigating its effects on consumer decision making. Specifically, political ideology is shown to drive differences in the salience of specific product attributes and the weights assigned to product attributes. Additionally, these interpretive differences are shown to cause a discrepancy in the satisfaction derived from options in a consideration set such that one option may not be the “optimal” choice for all consumers.

For more information, contact: RAdamFarmer@uky.edu

5. ***Understanding the Role of Bundle Pricing Strategy on Bundle Evaluations***

Deny Belisle, Concordia University, Canada*

H. Onur Bodur, Concordia University, Canada*

In this research, the authors develop a reliable and valid scale assessing the extent to which bundled products complement each other (study 1). In study 2, the effect of perceived complementarity on bundle evaluation is demonstrated, using the proposed measure in a new sample and additional set of bundled products. Finally, study 3 demonstrates that the effectiveness of a pricing strategy is contingent upon bundle composition, which either highlight products' complementarity-through a mixed-joint strategy- or reduce their perceived substitutability -through a mixed-leader strategy.

For more information, contact: bodur@jmsb.concordia.ca

6. ***The Curvilinear Effect of Social Distance on Charitable Donations***

Joseph Paniculagara, Alfred University, USA*

Xin He, University of Central Florida, USA

Conventional wisdom and extant literature suggest that charitable donations increase as social distance between donor and recipient decreases. In this paper, we suggest that as social distance decreases to the point where the donor may feel threatened by the same circumstances as the recipient is in, decreasing social distance beyond that point is associated with decreasing charitable donations. In an experiment using a novel donation of extra credit points, we find a curvilinear effect of social distance on charitable donations. We manipulate social distance at three levels and find effects of the linear and curvilinear terms (squared distance) on donations.

For more information, contact: Joseph.Thomas@knights.ucf.edu

7. ***Consumer Construal Level and Charitable Contributions of Time Versus Money***

Rhiannon MacDonnell, University of Calgary, Canada*

Katherine White, University of British Columbia, Canada

It is proposed that while money is construed more concretely, time is construed more abstractly. The authors investigate, across two pretests and three studies, whether this has implications for requests for charitable support. The results reveal that a concrete marketing message is more effective at generating contributions money (as opposed to time). On the other hand, activating an abstract mindset increases consumer willingness to donate time (as opposed to money) to a charitable cause. Implications for theory and practice are discussed.

For more information, contact: whitk@ucalgary.ca

8. ***Rethink What You Drink: Consumer Perceptions of Beverages***

Melika Irannezhad, University of Wisconsin Milwaukee, USA*

Melissa Bublitz, University of Wisconsin Oshkosh, USA

Laura Peracchio, University of Wisconsin Milwaukee, USA

Despite the increasing contribution of beverages to our daily calorie consumption, the role of beverage consumption in the obesity epidemic has received surprisingly little attention. We find that the more healthful consumers perceive a beverage to be, the more they underestimate the calories. Even within “healthy” beverage product categories such as milk and juice beverages, healthfulness perceptions increase the estimation bias. Furthermore, respondents underestimated the number of calories of processed drinks such as specialty coffee drinks and flavored milk. Our results have important implications for public policy as offerings within the beverage category explodes and consumption continues to grow.

For more information, contact: melika@uwm.edu

9. ***"Reasonableness" in Service Encounters***

Sunil Erevelles, University of North Carolina, Charlotte, USA

Nobuyuki Fukawa, Missouri University of Science and Technology, USA*

We argue that firms cannot standardize services to cover every contingency in the face of unexpected events. To solve this challenge, this paper introduces a concept of reasonableness. We define reasonableness as a latitude or space that exists around expectations in the delivery of service. Through a survey on customers' unreasonable service experience, this study identifies themes of reasonableness. To assess the magnitude of the relationships among these themes, we created a cognitive mapping. The cognitive mapping shows that both providing sufficient information and service personnel's flexibility are associated with the perception of fair treatment at a service encounter.

For more information, contact: fukawan@mst.edu

10. ***The Use of Logo Design to Convey Brand Personality***

Samuel Bond, Georgia Institute of Technology, USA

Aditi Bajaj, Georgia Institute of Technology, USA*

Addressing a void in research on logos in consumer behavior, our research focuses on the connection between elements of logo design and inferences of consumers regarding brand personality. Basing our ideas in literature on branding, design, and visual perception, we suggest that specific characteristics of a logo can be utilized to convey the presence or absence of specific brand personality traits. As evidence for these ideas, we present an exploratory study measuring consumer perceptions of 70 novel logos.

For more information, contact: sam.bond@mgt.gatech.edu

11. ***Mental Thermoregulation: Affective and Cognitive Pathways for Non-physical Temperature Regulation***

Rhonda Hadi, City University of New York, USA*

Lauren Block, City University of New York, USA

Dan King, National University of Singapore, Singapore

This research examines the effect of experienced physical temperature on an individual's decision-making process. In physical regulation, when individuals experience cold they seek warm stimuli, and when they experience warmth they seek cool stimuli to cool down. We suggest that reliance on emotions can function as a psychologically-warming process while reliance on cognitions can function as a psychologically-cooling process, and thus individuals may alter their decision-making style according to their thermoregulatory objectives. Across four studies, we demonstrate the effects of experienced temperature on consumer choice, purchase likelihood, and willingness to pay, and support reliance on emotions as a mediator.

For more information, contact: Rhonda.Hadi@baruch.cuny.edu

12. ***You Make Me Feel Bad about Myself: Shaken Self-view through Observing a Merged Other Act Inconsistent with One's Self-view***

Ali Faraji-Rad, Norwegian Business School, Norway*

We propose that observing a merged other indulging in unhealthy eating behavior could result in a shaken self-view among individuals who see healthy eating central to their self-view. This results in a subsequent goal of restoring the self-view and is manifested through higher preference for healthy products in a subsequent choice.

For more information, contact: ali.f.rad@bi.no

13. ***Mishap or Justification? Whether Segregating Losses Is Bad or Good Depends on Responsibility for the Outcome***

Dilney Goncalves, IE Business School, Spain*

Mental Accounting theory suggests that integrated losses (e.g., \$200) feel less painful than segregated ones (e.g., \$100+\$100). In this research, we examine the role of reasons in the evaluation of losses. In two studies, we show that (1) segregating the reasons (e.g., 2 different reasons) of a loss while maintaining the numeric value integrated (e.g., \$200) has a similar effect to segregating the numeric value (e.g., \$100+\$100) and (2) segregated losses can feel less painful than integrated ones when people are responsible for the outcome because they help people justify the loss.

For more information, contact: dilney.goncalves@ie.edu

14. ***Romance and Costly Signals: The Influence of Relationship Security on Conspicuous Consumption and***

Risk-Taking

Eric Stenstrom, Concordia University, Canada*
 Gad Saad, Concordia University, Canada
 Zack Mendenhall, McGill University, Canada
 Marcelo Nepomuceno, Concordia University, Canada

In a sample of 103 males and 97 females reporting to be in a committed romantic relationship, we examine the associations between relationship security and two forms of costly signaling, namely conspicuous consumption and risk-taking behavior. We find that having a less secure romantic relationship is associated with greater conspicuous consumption and domain-general risk-taking among men, but not among women. Our results add to the costly signaling theory by suggesting that conspicuous consumption and risk-taking displays in men (but not women) are down-regulated when they feel secure in a committed romantic relationship.

For more information, contact: e_stenst@jmsb.concordia.ca

15. ***The Effect of Presentation Order on the Processing of Visual and Verbal Information***

Erin Younhee Ha, University of Illinois at Urbana-Champaign, USA*
 Robert S. Wyer, Jr., The Chinese University of Hong Kong, Hong Kong

Product information can be conveyed either verbally or visually (e.g., in pictures). Although both words and pictures can provide judgment-relevant information, combining them can sometimes be detrimental to comprehension and evaluation (Wyer, Hung, & Jiang, 2008). This research investigated the conditions in which this negative effect is likely to occur. We expected that the effect of presenting visual and verbal information sequentially would depend on the imageability of the verbal description and its compatibility with the picture that accompanies it. Two experiments confirmed these expectations.

For more information, contact: yha4@illinois.edu

16. ***Silver Linings on Darkened Endorsers: The Ironic Effect of Schadenfreude in Celebrity Scandals***

Geetanjali Saluja, HKUST, Hong Kong*
 Jiewen Hong, HKUST, Hong Kong
 Anirban Mukhopadhyay, HKUST, Hong Kong

This research studies the impact of schadenfreude, or malicious feelings of joy at someone else's misfortune, on a celebrity-endorsed brand following the celebrity's involvement in a scandal. Two experiments demonstrate that when consumers experience such schadenfreude towards a celebrity brand endorser, the positive affect generated due to schadenfreude may transfer to the endorsed brand, leading to a post-scandal brand attitude that is ironically more positive. In particular, we find that this transfer of positive affect occurs for those with a low-level construal, but not for those with a high-level construal.

For more information, contact: gsaluja@ust.hk

17. ***The Effect of Market Price Dispersion on Consumer Perceptions of a Price Promotion***

Igor Makienko, University of Nevada, Reno, USA*
 Danny Weathers, Clemson University, USA

Market price dispersion effects on consumer perceptions of price discounts have received only scant attention in the pricing literature. Janiszewski and Lichtenstein (1999) theorize that a discount will be perceived as more attractive when a reference price range is narrow than when it is wide. Surprisingly, however, this possibility has never been tested experimentally.

This study shows that market price dispersion affects consumer perceptions of a price discount, ultimately impacting deal attitudes and purchase intentions. Given the potential for such effects, firms should closely monitor market price dispersion to optimize the effectiveness of price discounts.

For more information, contact: im095@yahoo.com

18. ***When Seeing Leads to Doing: The Powerful Influence of Fit between Imagery Perspective and Regulatory Focus***

Jodie Whelan, University of Western Ontario, Canada*

Theodore J. Noseworthy, University of Western Ontario, Canada

Conventional wisdom abounds when it comes to using imagery as a motivational tool; however, the literature does not always support a positive relationship between imagery and behavior. This research aims to resolve such discrepancies by examining the role of imagery perspective-regulatory focus fit. We propose a first-person (third-person) perspective fits with a prevention (promotion) focus and that the presence of fit causes a fluency effect that enhances ad evaluations (study 1), persuasion (study 2), and task-related arousal (study 3). Theoretical and practical implications are discussed.

For more information, contact: jwhelan.phd@ivey.ca

19. ***What about My People? The Effect of Targeting Advertisements towards One Ethnic Minority Group at the Expense of Others***

Mohammed El Hazzouri, University of Manitoba, Canada*

Kelley Main, University of Manitoba, Canada

Sergio Carvalho, University of Manitoba, Canada

Previous research has shown that members of ethnic minorities evaluate advertisements that feature their own ethnic group more positively than advertisements that feature members of the dominant group (i.e. Caucasians). However, what has remained absent from the literature is an understanding of how ethnic minorities evaluate advertisements that feature models belonging to other ethnic minority groups. This research demonstrates that members of ethnic minorities feel more ostracized by advertisements that feature models belonging to other ethnic minorities than advertisements that feature models belonging to the majority group resulting in more negative evaluations of the target advertisement and company.

For more information, contact: umelhazz@cc.umanitoba.ca

20. ***Reversing the Halo: Non-consciously Priming Health Destroys Hedonic Value of Junk Food Brands among Those Who Love it***

Paul M. Connell, Stony Brook University, USA

Lauren F. Mayor, Stony Brook University, USA*

Junk foods are frequently associated with pleasure, such as fun and a pleasant taste. Thus, it is not surprising that people who harbor highly positive feelings toward junk foods would rate them as more pleasurable and fun. However, priming

has been demonstrated to be a useful way to make specific product attributes, such as health, focal (Bargh & Pietromonaco, 1982; Bargh et al., 1986; Mandel & Johnson, 2002). Across two experimental studies, we find that a non-conscious health prime can destroy these associations of fun and tastiness for people who harbor highly positive feelings toward junk food brands.

For more information, contact: paul.connell@stonybrook.edu

21. ***The Moderating Roles of Brand Origin and Product Origin in Consumer Attitude***

Sangwon Lee, Ball State University, USA*

Xin He, University of Central Florida, USA

This research examines the interaction between two types of country of origin (brand origin and product origin) on persuasion as well as the underlying psychological processes. Results from two experiments show that when the brand origin is of a high quality country, information on the product origin is diagnostic and influences consumer attitude towards the product. In contrast, when the brand origin is of a low quality country, information on the product origin is no longer relevant. Mediation analysis further demonstrates that consumer involvement drives the interaction between two types of country of origin on product evaluations.

For more information, contact: slee20@bsu.edu

22. ***Twittertising: An Investigation into the Effects of Live Tweets on Advertising***

Sanya Makhani, St. John's University, USA*

Ryall Carroll, St. John's University, USA

According to a recent survey more than half of all marketers are currently engaging in some form of social media activity, with about 60% of them planning on increasing their spending over the next year (Ramsey, 2010). In 2010 36% of consumers followed a brand or company on Twitter, a social networking microblogging site, to get updates on company products (Public Relations Tactics, 2010). Since twitter provides access to real-time opinions, this research investigates how tweets effect consumer's perception of advertisements, products, and purchase intention. To test this we ran an empirical study using an infomercial video with simultaneous tweets about the product and advertisement.

For more information, contact: sanyamakhani@gmail.com

23. ***She's Got to be Smokin' Hot: The Effect of Goal Pursuit on Mate Selection***

Tess Bogaerts, Ghent University, Belgium*

Mario Pandelaere, Ghent University, Belgium

This research demonstrates that the type of goals people pursue in their lives influence the qualities they value in romantic partners. The more men pursue extrinsic goals, the more they want a long-term relationship with an attractive partner irrespective of her level of intelligence. In contrast, men who are more likely to pursue intrinsic life goals prefer a close relationship with an intelligent partner regardless of her looks. In sum, current study suggests that extrinsically motivated people focus more on the physical attributes of a possible mate, whereas personality traits are more appreciated by intrinsically motivated people.

For more information, contact: Tess.Bogaerts@UGent.be

24. ***Vividness Effects on Value and Risk for Radical Innovations***

Arjun Chaudhuri, Fairfield University, USA*

How do consumers react when first exposed to a verbal/visual description of a radical innovation under conditions of risk and less risk? Based on ideas from the availability-valence and risk-as-feelings hypotheses, we develop and test a model of vividness (picture/no-picture) effects on perceived value and risk as feelings under risky and less-risky conditions. Using the hydrogen fuel cell car as the innovation, we find some support for both hypotheses depending on the type of visual description and the level of risk. Notably, the effect of perceived value on willingness to try the innovation is strong and positive under all conditions.

For more information, contact: achaudhuri@mail.fairfield.edu

25. ***Satisficing in Online Questionnaires: How to Assess Survey Quality when Respondents Don't Tell you the Truth***

Boris Toma, University of Mannheim, Germany*

Daniel Heinrich, University of Mannheim, Germany

Hans H. Bauer, University of Mannheim, Germany

This paper has two main research goals. On the one hand we examine the influence of different forms of recruitment and incentives on the quality of data gathered in online surveys. On the other hand we explore measures, which are appropriate to identify satisficing in web surveys. We find that measures based on sample error are not sufficient to satisfactorily determine data quality from online surveys and therefore we come up with innovative measures for assessing respondents' satisficing behavior. Regarding the influence of incentives and recruitment on data quality we find surprising results.

For more information, contact: boris.toma@bwl.uni-mannheim.de

26. ***The Effects of Consumer Emotional Intelligence on Conflict-Management in Consumer-Brand Relationships***

Hongmin Ahn, West Virginia University, USA*

Yongjun Sung, University of Texas at Austin, USA

Minette Drumwright, University of Texas at Austin, USA

This research suggested that consumer emotional intelligence (CEI) is an important construct in explaining why some consumers react destructively to conflicts in consumer-brand relationships whereas others do not. The first experiment showed that when encountering conflicts in relationships, consumers high in CEI were more likely to direct their emotions positively, and they were less likely to exit the relationships than were those low in CEI. The second experiment further demonstrated that types of conflict moderated the effect of CEI on coping behaviors. The second experiment also showed that low-CEI consumers were more likely to attribute negative intentions to the company; therefore, they were more likely to exit the relationship than were high-CEI consumers, suggesting a mediating effect of perceived intention.

For more information, contact: hongmin.ahn@mail.wvu.edu

27. ***(Socially) Responsible You, Despicable Me: The Positive Effects of Negative Spillover***

Jonathan Hasford, University of Kentucky, USA*

R. Adam Farmer, University of Kentucky, USA*

Despite recent developments in spillover research, an understanding of the negative impact on competitors from a focal company's positive action is limited. In this research, we investigate how fulfillment of social responsibility by a focal company negatively impacts perceptions of competing products. In doing so, we extend the accessibility-diagnostics model of spillover by considering the method by which attitudes are individually formed and the relative evaluation of products from a reference point.

For more information, contact: jonathan.hasford@uky.edu

28. ***How to Plan? The Influence of Backward versus Forward Planning on Goal Pursuit***

Jooyoung Park, University of Iowa, USA*

Fang-Chi Lu, University of Iowa, USA*

William M. Hedgcock, University of Iowa, USA*

Planning has been shown in previous research to be an important strategy for self-regulation. We expanded upon the planning literature by testing the proposition that different chronological orders of plan construction would affect individuals' perceived time constraint (i.e., shortage of time for completing tasks related to achieving a certain goal) and perceived likelihood of achieving a goal. We found backward planning, planning from goal to starting point, reduced feelings of time constraint and increased goal expectancy, compared to forward planning. Furthermore, the effect of planning on expectancy was mediated by perceived time constraint.

For more information, contact: jooyoung-park@uiowa.edu

29. ***The Effect of Scarcity and Construal Level on Choice***

Lale Okyay-Ata, Koc University, Turkey*

Baler Bilgin, Koc University, Turkey

Past research indicates that scarcity has a robust positive effect on product evaluation. The present research shows that construal level moderates the effect of scarcity on choice. A high construal level elicits a focus on desirability concerns, while a low construal level elicits a focus on feasibility concerns. Thus, we propose that a high construal level makes scarcity appeals more appealing than a low construal level, increasing to a greater extent the choice share of the scarce item relative to a comparable non-scarce item. Further, we expect the effect of construal level to be more pronounced for quantity-driven than time-driven scarcity.

For more information, contact: lokyay@ku.edu.tr

30. ***Physical Temperature Effects on Consumer Purchase Behavior***

Tingting Wang, HKUST, Hong Kong*

Rongrong Zhou, HKUST, Hong Kong

Previous research concerning temperature in the field of embodied cognition has predominantly focused on the relationship between temperature and social interactions. The present research explores the effects of temperature on consumers' purchase and selling decisions in general. Drawing on embodied cognition, we propose that there is an association between temperature and abundance, such that physical coldness (vs. hotness) leads people to seek (vs. avoid) abundance. Our first study assessed people's belief in such association and found support for it. Study 2 revealed that physical coldness or hotness influenced people's desire to buy products and to sell their own possessions.

For more information, contact: meriawang@ust.hk

31. ***Effective Charitable Appeals under Mortality Salience: Donor vs. Victim-focus Appeals***

Youngsoo Kim, KAIST Business School, Korea*

Minhi Hahn, KAIST Business School, Korea

The research investigates the effects of charitable appeals' focus on donation intention under mortality salience (MS). We hypothesize that the donor-focus appeal is more effective than the victim-focus appeal to increase charitable support because people need to boost their self-esteem under MS and this provides such motivation. On the other hand, the victim-focus appeal under MS has a negative impact on charitable support because it intensifies existential anxiety. Across two experiments, we demonstrate that participants donate more money when they receive the donor-focus appeal.

For more information, contact: ys531@business.kaist.ac.kr

32. ***Is Love Really Blind? The Effect of Social Identities on Information Processing***

Colleen Bee, Oregon State University, USA

Vassilis Dalakas, California State University San Marcos, USA*

The focus of this study is on how social identities influence processing of sponsorship associations. In trying to create awareness and/or enhance brand image, sponsors create linkages with multiple, and often rival teams. An interesting characteristic of sports fans is their level of dislike, and often hatred for rival teams. Prior research has addressed the favorable effects of sponsorship (e.g., Gwinner and Eaton 1999; Madrigal 2000); however, less attention has been given to the potential negative effects of sponsorships of rivals (Dalakas and Levin 2005). We seek to extend previous research with an examination of marketing factors thought to influence positive and negative transfer effects.

For more information, contact: colleen.bee@bus.oregonstate.edu

33. ***The How and Why of Consumption: Mindsets and a Consumer's Elaboration***

Andrea Tangari, Wayne State University, USA*

Ronn Smith, University of Arkansas, USA

This paper consists of two experiments that test the effects of the moderating influence of a consumer's temporal orientation on a mindset manipulation. The first experiment manipulates high and low-level mindsets and evaluates consumer choice in a retail environment. The second experiment manipulates high and low-level mindsets in a thought exercise. The second study also investigates the mediating influence of a consumer's guilt on the influence of the interaction. Results indicate that there is an interaction between the mindset manipulation and consumers' temporal orientation and that guilt may function as a high-level emotion that mediates the interaction.

For more information, contact: andrea.tangari@wayne.edu

34. ***Identity Cues in Product Rating Distributions: The Role of Self-concept Clarity in Consumer Preferences***

Bella Rozenkrants, Stanford University, USA*

S. Christian Wheeler, Stanford University, USA

Baba Shiv, Stanford University, USA

Online retailers and reviews often present rating distributions of products. The current study examines the role that the shape of the ratings distribution can play in product evaluation. We hypothesize that consumers with unclear self-views prefer polarizing products. Results show that consumers with low self-concept clarity are drawn to products with bimodal distributions more so than consumers with higher levels of self-concept clarity. We suggest that products with bimodal distributions are viewed as more self-defining and are therefore more likely to be chosen by consumers with low self-concept clarity.

For more information, contact: bellar@stanford.edu

35. ***Why Starbucks Coffee Tastes Better***

Claude Messner, University of Bern, Switzerland*

Michaela Wänke, University of Mannheim, Germany

Consumers are less satisfied with a product chosen from an extended assortment than a limited one. One strategy to reduce information overload is to part the product into attributes. Half of the consumers chose a coffee from a list of drinks showing all options simultaneously. The other half chose a coffee on sequentially presented attributes. Additionally, also the size of the assortment varied. After choosing from simultaneously presented options, the coffee tastes less chosen from a large assortment than a small one, replicating the too much choice effect. However, this effect reversed when consumers decided among attributes sequentially.

For more information, contact: claude.messner@gmail.com

36. ***Branded or Not? The Importance of Recipient Personality in Gift Exchange Process***

David E. Sprott, Washington State University, USA*

Sandor Czellar, HEC Lausanne, Switzerland

Charles Lebar, HEC Paris, France

Miroslav Karlicek, University of Economics, Czech Republic

In three studies, we investigate an under-researched yet important aspect of gift exchange: the impact of brand name on consumer attitude towards the gift. Is a gift from one's favorite brand always more appreciated than a gift from one's least favorite brand? We show that consumer reaction following gift receipt is dependent upon brand attitudes, the nature of the situation and a personality trait, brand engagement in the self-concept. Some consumers may value a gift of their most favorite brand actually less than a gift from their least favorite brand. We demonstrate that the underlying mechanism behind this result is ego threat and identify its situational boundaries.

For more information, contact: dsprott@wsu.edu

37. ***Compliments Received with Doubts: A Cross-Cultural Study of Brand Compliments***

Fang Wan, University of Manitoba, Canada*

Amitava Chattopadhyay, INSEAD, Singapore

Chi-Yue Chiu, Nanyang Technological University, Singapore

Hesham Fazel, University of Manitoba, Canada

Little research has been done to examine how cultural norms affect the way consumers react to compliments related to their brand consumption. In this work, we use self construal as a proxy to study cultural difference in compliments,

given in both social and brand usage contexts.

For more information, contact: wanf@ms.umanitoba.ca

38. ***Predicting Consumers' Adoption of New Technology: The Role of Behavioural Expectation***

Harryadin Mahardika, Monash University, Australia*

Dominic Thomas, Monash University, Australia

Michael Ewing, Monash University, Australia

Consumers who report their interest toward technology innovation do not necessarily adopt products that utilize a new technology. This inconsistency of attitude-behaviour is determined by the choice of construct that employed as predictor of new technology adoption. This research suggests behavioural expectation as a more accurate predictor of consumers' adoption of new technology compared to the widely used behavioural intention. Results from two experiments indicate behavioural expectation's higher predictive accuracy compared to behavioural intention for subjects who engaged in direct experience with new technology. In addition, subjects who respond to BE questions provide more consistent judgments along different conditions of new technology adoption compared to subjects who respond to BI questions.

For more information, contact: harryadin.mahardika@monash.edu

39. ***When a "Thank You" Doesn't Work: The Impact that Expressions of Gratitude from Organizations have on Consumer Attitudes***

Jamie Hyodo, Pennsylvania State University, USA*

Monica LaBarge, Queens University, Canada

When does the phrase "thank you" cease to communicate gratitude? Might a "thank you" actually be detrimental to relationships with consumers? When does a "thank you" really work? In this paper, a model consisting of Appropriateness, Sincerity, Persuasion Knowledge, and Prior Attitudes is developed and shown to be strongly predictive of attitudes toward an organization and its representatives. Application of this model confirms that organizations' expressions of gratitude impact consumer attitudes both positively and negatively, and that attitudes toward an organization representative are not necessarily consistent with attitudes toward the organization.

For more information, contact: jxh542@psu.edu

40. ***I Love My Brands, But Not Yours--How Brand Personality and Self-Construal Influence Consumer-Brand Relationship***

Jenny Jiao, University of Iowa, USA*

Irwin Levin, University of Iowa, USA

This research identifies a novel way in which the consumer-brand attachment and brand attitudes can be altered by different self-construal levels, brand personalities and commercial information types. Two studies have showed that independent individuals prefer the exciting brands rather the sincere brands. Furthermore, consumers have higher brand attitude and purchase intention toward the sincere brands if the product information is framed in the attractive way than the professional way.

For more information, contact: jinfeng-jiao@uiowa.edu

41. *Avatar Appearance, Economic Generosity, and Cooperative Behavior*

Paul Messinger, University of Alberta, USA

Kristen Smirnov, University of Alberta, USA*

Xin Ge, University of Northern British Columbia, Canada

Improvements in digital technology allow consumers to interact with each other online in ways that are increasingly visual and realistic, through the use of representations of selves known as "avatars." However, just as visual appearance affects social interaction in the physical world, it also has the potential to affect virtual interaction. Through the use of economic games we examine the propensity of users to cooperate or to extend favorable or unfavorable treatment toward others even when they are aware of the avatar's imperfect representation of their social partners.

For more information, contact: ksmirnov@ualberta.ca

42. *Growing with Love: Priming Attachment Security Enhances Risk Taking and Impatience*

Yuan-Yuan Li, K.U. Leuven, Belgium*

Sabrina Bruyneel, K.U. Leuven, Belgium

Luk Warlop, K.U. Leuven, Belgium

The impact of attachment security on consumer behaviors is under-investigated. Secure attachment gives individuals confidence and courage to explore the environment, accept challenges, and take risks. We found that priming consumers with attachment security made them prefer risky options (Study 1), and enhanced impatient behaviors (Study 2). We replicated the basic effect in Study 3, while ruling out several alternative explanations. Follow-up studies will be conducted to investigate whether the effect is driven by optimism towards the environment or by a "safety cushion" emerging from feelings of security.

For more information, contact: yuanyuan.li@econ.kuleuven.be

43. *The Influence of Magnification Construal on Self-Control*

Ashley Rae Arsena, University of Texas at San Antonio, USA*

David H. Silvera, University of Texas at San Antonio, USA

This research investigates whether individuals who fail to overcome temptations construe the temptation as more pleasurable than it actually is; this is referred to as magnification construal. It was found that consumers who engage in magnification construal are more likely to experience self-control failure, whereas consumers who do not engage in magnification construal are more likely to experience self-control success. This study elucidates why some consumers give into temptations. By adopting a specific mindset that enhances the hedonic value of a temptation, this presumably encourages consumers to forgo commitment to their long-term goal.

For more information, contact: Ashley.Arsena@gmail.com

44. *The Impact of Brand Elements in E-Mails on Consumer Perceptions*

Stefan Hampel, University of Bayreuth, Germany

Larissa Hammon, University of Bayreuth, Germany*

Hajo Hippner, University of Bayreuth, Germany

Combating information overload and achieving advertising goals in e-mail marketing necessitate cutting-edge e-mail layout. Existing advertising research has shown that the usage of brand elements is effective. We provide significant indication for enhanced advertising effectiveness due to the application of brand elements in e-mails compared to plain text e-mails.

For more information, contact: stefan.hampel@uni-bayreuth.de

45. ***The Role of Hedonic Goals in Post-Impulsive Buying Product Evaluation***

Eunice Kim, University of Texas at Austin, USA*

Matthew Eastin, University of Texas at Austin, USA

To overcome the limitations of existing studies and expand the current understanding of impulsive buying, this paper attempts to induce impulsive buying in an experiment as well as to understand the mechanism of how impulsive buying influences post-purchase product evaluation by focusing on the role of hedonic goals. Results show that hedonic-orientation has a greater effect on post-impulsive buying product evaluation than will utilitarian-orientation. However, there is no significant difference between hedonic and utilitarian orientation measures for a control group. In addition, there exist no effects of hedonic-orientation on post-impulsive product evaluation, when it occurs after an individual experiences the product.

For more information, contact: es841223@gmail.com

46. ***The Impact of Narrative Transportation on Television Programming Consumption***

Brian Gillespie, Washington State University, USA

Darrin Taylor, Washington State University, USA*

Mark Mulder, Washington State University, USA*

Manja Zidandek, Washington State University, USA

An accurate understanding of consumers' future television viewing habits is extremely important for television network executives, television show producers, and advertisers. The current paper offers guidance in these television decisions by examining the role of narrative transportation in viewers' future show consumption habits post exposure to a television pilot episode (first episode in a serial). Support is also offered that the narrative transportation-entertainment consumption relationship is mediated by show enjoyment. Suggestions for future research include the consideration of existing shows with previously established consumer familiarity.

For more information, contact: mulder@wsu.edu

47. ***How Do Bloggers' Relationship Norms Affect the Characteristics of Disclosure Policy Statements?***

Soyean (Julia) Kim, Boston University, USA*

Barbara Bickart, Boston University, USA

In an effort to prevent a deceptive, misleading online marketing practices, the Federal Trade Commission (FTC) has revised the guidelines for Use of Endorsements and Testimonials in Advertising (see 16 C.F.R. §§ 255.0-255.5), mandating bloggers to disclose all forms of compensation they receive from the sponsor of a product or service in a clear and conspicuous way. This paper focuses on two characteristics of disclosure policy statements: ambiguity (i.e., "the potential for multiple interpretations" of the disclosure policy statements) and visibility (i.e., "the ease of locating or navigating" to the disclosure policy statement). We expect these two characteristics of the disclosure policy statement

will vary with the bloggers' primary relationship norms, that is, the guiding principles which govern bloggers' attitudes and behaviors in their interactions and communications with their audience.

For more information, contact: sokim@bu.edu

48. *Nonverbal Accuracy Outcomes in Retail and Service Settings: A Meta-Analysis*

Susan Andrzejewski, Franklin & Marshall College, USA*

Sara Damato, Franklin & Marshall College, USA*

Erin Darragh, Franklin & Marshall College, USA*

Recent research in marketing suggests that nonverbal accuracy, or the ability to accurately decode the nonverbal cues of others, is of paramount importance in both retail and service settings. Nonverbal behaviors may serve as an indirect indicator of consumer response that may provide employees the ability to better understand consumer needs and then customize their approach to better meet those needs. This meta-analysis revealed that nonverbal accuracy could improve various indicators of success for retailers and service providers. Moderator analyses revealed particular domains in which nonverbal accuracy may be most beneficial to a firm.

For more information, contact: susan.andrzejewski@fandm.edu

49. *The Differential Influence of Impression Management Styles on Consumer Goal Commitment*

James Mead, University of Kentucky, USA*

Maura Scott, University of Kentucky, USA

Consumers pursue various beneficial goals. However, even with aid from supporting products, consumers often fail in their goal pursuits. The American obesity epidemic is a prominent example of such goal failures. Goal commitment, or the willingness to persevere toward set goals, is often a focal point of study because it is crucial for goal achievement. We explore how consumer perceptions of the proximal antecedents of goal commitment are influenced by the impression management styles (i.e., the content and manner in which information is presented) used by many goal supporting products.

For more information, contact: james.mead@uky.edu

50. *The Likes and Dislikes of Driving: Toward a Cultural Meaning of the Car and its Users*

Linda Espinosa, Monterrey Institute of Technology, Mexico*

Carlos Hita, Monterrey Institute of Technology, Mexico*

Anne Fouquet, Monterrey Institute of Technology, Mexico

The interest for the meaning of flows and movements in social life has resulted on several research works. The dominant form of mobility, the car, has been understudied in many social areas. The car culture has various dimensions that are frequently ignored when strategic decisions are made. Paying attention to the emotional components on car culture could help create new perspectives. The main purpose of this study is to find the cultural reality that exists regarding the relationship between the city drivers and their cars. This shows how drivers defined themselves and their relationship to other people through its attitude at driving.

For more information, contact: lh.espinosa.phd.mty@itesm.mx

51. ***It Doesn't Matter if I Win or Lose, I Still Get to Purchase: The Effects of Contextual Motivations on Brand Evaluations***

Marina Carnevale, City University of New York, USA*

Lauren Block, City University of New York, USA

Purchase decisions may be prompted by the need to self-gratify (self-compensate) some positive (negative) feeling about the self caused by extraordinary achievement (failure). By illustrating that these different contextual motivations affect the attitude towards brands consumers feel connected to, this research provides a greater understanding of how brands are related to the self concept.

For more information, contact: marina.carnevale@baruch.cuny.edu

52. ***Bra Purchases and Implicit Self-Esteem***

Shi Liu, University of Tennessee, Knoxville, USA*

Qian Yang, Tsinghua University, China*

Ruoqiao Zheng, Tsinghua University, China

Wenwen Zheng, Tsinghua University, China

This study investigates the relationship between women's implicit self-esteem (ISE) and their willingness to spend on bra (WTSB). In Study 1, American participants with a high ISE show higher WTSB. In addition, although explicit self-esteem (ESE) and ISE is correlated in this study, only ISE is correlated with women's WTSB. In Study 2, we confirm this correlation in China, using other measurements of ESE and ISE, while controlling participants' body appreciation level and relationship status. The current study contributes to the implicit self-esteem study by documenting a link between implicit self-esteem and an implicit product (aka. bra).

For more information, contact: liush.04@gmail.com

53. ***The Effect of Mortality Salience on Materialism: The Moderating Role of Regulatory Focus***

Xiaoning Guo, University of Cincinnati, USA*

John Dinsmore, University of Cincinnati, USA

Scott Wright, University of Cincinnati, USA

James Kellaris, University of Cincinnati, USA

Recent research indicates that mortality salience can induce materialism. However, the boundary conditions within which this effect operates remain to be fully explored. In this paper, we identify a potentially important boundary condition: regulatory focus. This motivation factor may drive responses to mortality salience information, in turn, affecting the inducement of materialism. We further propose that a prevention (versus promotion) focus should increase sensitivity to mortality salience. Evidence from an experiment shows that increasing mortality salience encourages prevention-focused individuals to activate materialistic thinking. This work contributes to the regulatory focus and terror management areas, providing a more comprehensive of how and when mortality salience influences materialism.

For more information, contact: guoxo@mail.uc.edu

54. ***My Heart Longs for More: The Role of Emotions in Assortment Size Preferences***

Yangjie Gu, London Business School, UK*

Aylin Aydinli, London Business School, UK

We examine whether consumers' preference for assortment size depends on the processing strategies they use. In particular, we investigate how choices based on feelings influence preference for larger (vs. smaller) assortments. Our theory posits that people who make feeling-based (vs. reason-based) choices tend to process information at a more global level, and therefore desire for more variety. As such, they are more satisfied with larger (vs. smaller) assortments, as larger assortments provide greater value. However, this difference is mitigated when people adopt deliberative processing strategies that make them more likely to consider the difficulty associated with choice.

For more information, contact: ygu.phd2008@london.edu

55. ***Experiential Gifts Are Socially Connecting***

Cindy Chan, University of Pennsylvania, USA*

Cassie Mogilner, University of Pennsylvania, USA

What type of gift best connects people—material gifts (objects to be kept in the recipient's possession) or experiential gifts (events that the recipient lives through)? A Father's Day study showed that fathers who received more experiential gifts felt closer and more connected to their child after Father's Day, whereas those who received more material gifts showed no significant change in how close they felt to their child. Opportunities for future research examining why experiential and material gifts differentially affect relationship closeness are discussed.

For more information, contact: cich@wharton.upenn.edu

56. ***When 'Your Brand' Changes the Terms of the Relationship: Vicarious Dissonance in the Context of Brand Attachment***

Eda Sayin, Koc University, Turkey*

Nilufer Z. Aydinoglu, Koc University, Turkey

Zeynep Gurhan-Canli, Koc University, Turkey

Consumers see brands as relationship partners. Congruence between personal characteristics and those that describe a brand, both as perceived by the individual, strengthens the relationship between the brand and the individual. Building on the vicarious dissonance theory from social psychology and research on brand extensions and brand attachment, this work systematically investigates how consumers' evaluations of incongruent brand extensions differ according to their attachment levels to the brand. Preliminary studies have demonstrated that people felt vicarious dissonance for a brand that they were highly attached to when that brand introduced an incongruent brand extension, and consequently evaluated both the extension and the product category more positively (in order to reduce dissonance).

For more information, contact: ebekem@ku.edu.tr

57. ***When Making it Easy Leads to Working Harder: Counterintuitive Effects of Popularity Cues on Choice Overload***

Erin Younhee Ha, University of Illinois at Urbana-Champaign, USA*

Tiffany Barnett White, University of Illinois at Urbana-Champaign, USA

Previous research has shown that choice difficulty associated with large (versus small) product assortments can lead to negative outcomes such as choice deferral or dissatisfaction. However, we argue and demonstrate that when those choosing from larger versus small assortments encounter popularity cues, which should arguably make choice easier

and faster, they invest more (versus less) effort in decision making (e.g., they read product descriptions more slowly and carefully). Thus, despite a more difficult choice process, choice overload effects were reversed in the presence (versus absence) of social cues; consumers were more confident and more likely to purchase when assortments were larger versus small.

For more information, contact: yha4@illinois.edu

58. ***How Honor Values Affect Responses to Brand Failures***

Frank May, University of South Carolina, USA*

Alokparna (Sonia) Monga, University of South Carolina, USA

Kartik Kalaignanam, University of South Carolina, USA

In this research, we examine an unexplored variable in consumer research—ascriptive to honor values, and its effect on responses to brand failures. Across three lab studies and one archival data study, we find that ascription to honor values positively predicts retaliatory behavior in the case of a brand failure. We also find that this relationship is stronger in the event of a process (vs. outcome) failure and is attenuated when high-honor consumers are given the opportunity to personally punish the service person responsible. Perceptions of abuse were found to mediate the effects.

For more information, contact: frank.may@grad.moore.sc.edu

59. ***The Roles of Self-Construal and Self-Affirmation in Effortful Customer Experiences***

Prakash Das, University of Calgary, Canada*

James Agarwal, University of Calgary, Canada

We examine the psychological processes underlying consumer attributions in effortful situations. Across two studies using different methodologies, we first examine the effects of self-construal on consumer attributions of a firm's efforts in either product design or service issue resolution. We then examine the moderating effect of self-affirmation. We find that priming the independent self-construal (vs. priming the interdependent self-construal) produces greater negative attributions. There is suggestive evidence that self-affirmation moderates these effects. The reduction appears to be greatest for those primed with the independent self-construal, suggesting that self-affirmation may have the greatest effect on those that experience greater self-related threat.

For more information, contact: pdas33@gmail.com

60. ***Creating "We-ness" by Embracing the Brand: A New Look at Self-brand Connection***

Min A Kwon, University of Illinois, USA*

Tiffany Barnett White, University of Illinois, USA

Rashmi Adaval, HKUST, Hong Kong

Sensory experiences in daily life as consumers can influence our evaluation and judgments. This research suggests that haptic experiences such as embracing an object may increase the connection to the object because of the "we-ness" that is created from the experience. When "we-ness" is created, "them" becomes "us" and increases connection between the self and the object. Across two experiments we find that embracing the brand on the pen increases ones' connection to the brand, which is moderated by self construal.

For more information, contact: kwon56@illinois.edu

1.1 Symposium: Selfish Consumers: Prosociality and (Im)Morality in Forecasts and Behavior

Room: Four Seasons Ballroom 1

Chair: Ajay Abraham, University of Maryland, USA

The "Cellph"-ish Effects of "Self"-phone Usage

Ajay Abraham, University of Maryland, USA*

Anastasiya Pocheptsova, University of Maryland, USA

Rosellina Ferraro, University of Maryland, USA

Mobile phones are ubiquitous (PR Newswire, 2011), and while they serve as a means of connecting to and communicating with others, it is not clear if they are making us more or less socially-oriented. For example, post-disaster charity campaigns for Japan and Haiti were done via mobile phones (Woyke, 2011). On the other hand, some evidence shows that mobile phones lead to greater social withdrawal (Dater, 2011). Thus, the use of mobile phones may have both positive and negative effects on our behavior towards others. This paper explores a potentially negative consequence.

Given the time and energy that individuals invest in using their mobile phones (Baudisch & Holz, 2010), we expect individuals to develop strong bonds with their mobile phones, as they do with other possessions (Lastovicka & Sirianni, 2011). Additionally, because people hold mobile phones in their hands and because mobile phones serve as the interface for communication – operating as a proxy for people’s mouths and ears – mobile phones can be considered physical self-extensions (Belk, 1988). Therefore, we expect people’s mobile phones to prime the activation of self-related constructs, resulting in a greater focus on the self and self-oriented values than on other-oriented values. Such an internal self-focus has been linked to decreased cooperative behavior (Utz, 2004). Similarly, narcissism, which involves self-absorption and self-focus, has been implicated in societal selfishness (Emmons, 1987). Therefore, we expect that mobile phone usage will make people pursue self-interest-aligned outcomes, resulting in more selfish behavior and less prosocial behavior. To test this proposition, we ran four experiments with different measures of selfish and prosocial behavior, specifically, the value participants place on their time, volunteering intentions, and the time spent on a task in aid of a charity.

Participants in Experiment 1a were randomly assigned to a mobile phone condition or a toy condition. They spent two minutes using their mobile phone or using the toy to create multiple shapes, an activity that should be similar to doing multiple things on one’s mobile phone. The participants’ value of their time was measured by the amount they wanted to be paid to help the researchers by participating in a similar 30-minute study. Participants in the mobile phone condition wanted higher compensation ($M = \$17.17$) than did participants in the toy condition ($M = \$11.69$, $F(1, 41) = 7.87$, $p < .01$), indicating that they placed greater value on their time.

In Experiment 1a, the toy did not possess any communication capabilities so the observed differences in the value of time could have been due to associations of instant gratification (Barczak, Ellen, & Pilling, 1997), which may lead people to value their time more. Experiment 1b was designed to rule out this alternative explanation. Participants were randomly assigned to a mobile phone condition or to a Facebook condition. Facebook allows for instant communication, which should increase the need for instant gratification. However, Facebook is not a physical extension of the self and thus should lead to lower self-focus relative to mobile phones. After spending five minutes using their mobile phone (Facebook account), participants saw an advertisement for a local charity and indicated how likely they would be to volunteer. Participants in the mobile phone condition were less willing to volunteer ($M = 3.20$) than were participants in

the Facebook condition ($M = 3.56$, $F(1, 190) = 4.15$, $p < .05$), indicating lower desire to engage in prosocial behavior.

Experiment 2 demonstrates the underlying process and also uses a different manipulation for the mobile phone prime. In the mobile phone condition, participants were primed by asking them to draw their mobile phone in detail, followed by asking them to vividly describe how they used it the previous day. Participants in the control condition did not complete the priming task. Next, all participants saw a word search puzzle and were asked to locate words of four or more letters. The puzzle contained eight self-related words, eight other-related words, and 14 neutral words. Demonstrating differential activation and accessibility of self- and other-related constructs, participants in the mobile phone condition found less other-related words ($M = 13\%$) than did participants in the control condition ($M = 20\%$; $F(1, 98) = 5.44$, $p < .05$).

Experiment 3 was conducted to replicate our findings using a real behavioral measure. Following the same procedure as in Experiment 2, participants were asked to draw their mobile phone or television in detail, followed by asking them to vividly describe how they used the mobile phone or television the previous day. Next, participants did a verbal ability task in which they had to select a synonym for each of 30 words. For each correct answer, the researchers would donate one cent to the National Parks Conservation Association. At any point, participants could exit the task and use the remaining time to browse the Internet, a more self-focused activity. As expected, participants in the mobile phone condition spent less time on the task ($M = 189$ seconds) than did participants in the television condition ($M = 220$ seconds; $F(1, 102) = 4.42$, $p < .05$), demonstrating less engagement in prosocial behavior when faced with a tempting alternative.

In summary, we propose that the usage of mobile phones leads to a greater focus on the self, which in turn, results in more selfish and less prosocial behavior. Experiments 1a and 1b found that the usage of mobile phones affected how much people valued their time. Experiment 1b also found the negative effect of mobile phone use on volunteering likelihood. Experiment 2 found differential accessibility for self- and other-related constructs, explicating the relative focus on self-interest and others' interests after mobile phone use. Finally, Experiment 3 demonstrated the effect by using a real behavioral measure. Taken together, these four experiments offer convergent evidence for our propositions.

For more information, contact: aabraham1@rhsmith.umd.edu

The Heat of Economic Hardship: Empathy Gaps for Financial Deprivation Induce Moral Hypocrisy

Eesha Sharma, New York University, USA*

Nina Mazar, University of Toronto, Canada

Adam L. Alter, New York University, USA

Dan Ariely, Duke University, USA

Morality is considered to have evolved as a mechanism of survival, restricting excessive self-interested behavior and fostering human cooperation (Shermer 2004). The basic idea behind this assumption is that individuals strive to live in accordance with their moral standards and refrain from transgressions through motivated self-regulatory mechanisms that help them to exercise moral agency. Yet, recent theories in social cognition and morality suggest that individuals selectively disengage these mechanisms so they can engage in brief instances of questionable conduct without violating their moral standards. In particular, self-sanctions can be disengaged by reinterpreting one's actions or minimizing the negative consequences of one's actions, vilifying the target of one's actions, and, most strongly, by obscuring personal causal agency through diffusion or displacement of responsibility (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Mazar, Amir, & Ariely, 2008). Thus, the easier it is for individuals to employ any of these mechanisms and deactivate

moral control, the more likely they are to engage in immoral behavior, such as cheating, without changing their moral standards. Such processes can lead to moral hypocrisy, where people impose strict moral standards while behaving less morally (Lammers, Stapel, & Galinsky, 2010). However, researchers have yet to examine whether such moral hypocrisy is conscious and deliberate or instead represents a subconscious failure to recognize the role of transient states.

Prior research has shown that not only are individuals' preferences and behaviors state-dependent but also they misjudge and mispredict their own as well as others' preferences and behaviors across affective states. This bias has been coined the "hot-cold empathy gap" (Loewenstein, 1999). Traditionally, the "hot-cold empathy gap" has been used to explain mispredictions of how drive states caused by bodily needs such as hunger, thirst, anxiety, and exhaustion affect judgment and decision making. What is less known is to what extent this also applies to non-bodily driven states. For example, one of the most important drivers in our western, developed world is money, which enables people to acquire tangible as well as intangible commodities (social influence, adoration, happiness, etc; Lea & Webley, 2006). One of the crucial distinctions between money and more bodily drive states is that one's absolute financial standing seems to matter less than one's standing relative to other people (Shafir, Diamond, Tversky, 1997). Thus, if money is indeed such a strong motivator, we posit that feeling financially worse off than others should motivate people to rectify this deficiency even if they are required to engage in morally questionable conduct. Furthermore, we hypothesize that when individuals do not feel financially worse off (i.e., when they are in a cold state) they fail to appreciate this drive and therefore judge immoral acts committed out of financial deprivation more harshly than when they too experience a similar state of financial deprivation (i.e., when they are in a hot state).

We tested our predictions in a series of four studies. In Study 1 we administered a survey in which individuals were asked whether they agreed with the statements that (1) one's financial situation is not an acceptable excuse for dishonesty, (2) all people, regardless of their financial standing, should be held equally accountable for dishonest behavior, (3) people who are financially deprived do not deserve more leeway when they behave dishonestly, and (4) when assessing the extent to which people are honest or dishonest, one should take into account how financially deprived they are. Participants held the general belief that financial standing should not matter. Interestingly, however, Study 2 and 3 show that being financially worse off than one's peers objectively (by losing instead of winning money in a lottery) or subjectively (by asking people to write down two vs. 10 reasons why they are financially better or worse off than their peers), increased lying to earn more money in a subsequent cheating task with real consequences. Finally, in Study 4, people, who were made to feel financially worse off than their peers (i.e., people who wrote two reasons for why they felt deprived; "hot" state), were more lenient in their sentencing of deprived but not non-deprived offenders, while people, who were not made to feel financially worse off than their peers (i.e., people who wrote six reasons for why they felt deprived; "cold" state), did not differentiate between those offenders.

For more information, contact: esharma@stern.nyu.edu

Predicting Consumers' Goodness Vs. Predicting a Consumer's Goodness: Differential Weighting of Behavioral Constraints Produces Divergent Forecasts

Clayton Critcher, UC Berkeley, USA*

David Dunning, Cornell University, USA

Marketers, policymakers, and consumers alike have cause to forecast others' morally-relevant behaviors. For example, the government may consider what percentage of consumers will submit fraudulent warranty claims. Alternatively, a charity may forecast the likelihood that a consumer will donate to charity.

These examples differ most obviously in the behavior they focus on, but they differ in another key, but heretofore unappreciated, sense. The first example focuses the forecaster on consumers in general, while the second question focuses the forecaster on an individual (though non-individuated) consumer. Both consumer behavior and JDM researchers have treated forecasts of non-individuated individuals and populations interchangeably. But might such forecasts systematically differ?

In five studies, participants estimated what percentage of consumers would engage in a morally-relevant behavior (*population condition*), or they indicated the percent likelihood that a randomly selected individual from the population would display that behavior (*individual condition*). These two questions are normatively equivalent (e.g., From a room with 30% women, the probability than any specific person is female is also 30%). Studies 1 and 2 demonstrated that people forecast that individuals will behave more pro-socially than will populations. Studies 3 through 5 provided correlational and experimental support for why a difference emerged.

In Study 1, all participants forecasted whether others would comply with a request. We framed compliance as being helpful (*compliance = pro-social condition*) or as failing to stand up for what is right (*compliance = anti-social condition*). Participants estimated—for an individual or for a population—whether people would comply. The predicted 2 (framing: compliance = prosocial or compliance = antisocial) X 2 (target: individual or population) interaction emerged, $F(1, 120) = 4.14, p = .04$. Regardless of whether it meant complying or resisting compliance, individuals—more so than populations—were predicted to behave pro-socially. Because the same behavior was framed as pro-social or anti-social, alternative explanations appealing to specific features of compliance—as opposed to its pro-sociality—are made less plausible.

In Study 2, participants estimated others' (or an other's) likelihood of engaging in a range of pro-social and anti-social behaviors (identified as highly representative of these categories through pre-testing) in the next month. Conceptually replicating Study 1, a 2(behavior: pro-social or anti-social) X 2(target: individual or population) interaction emerged, $F(1, 305) = 5.44, p = .02$. A (non-individuated) consumer was forecasted to behave more pro-socially than were consumers as a whole.

Might these differences emerge for an artifactual reason—reflecting a difference between forecasts made in continuous terms (“How likely is this consumer to...”) versus discrete terms (“What percentage of consumers will...”). Study 3 addressed this concern by eliciting all judgments in a discrete form, asking “Thinking of a randomly selected Cornellian, how many times in the next year will he or she...” versus “Thinking of all Cornell students, how many times will the average student...” The same 2(behavior: pro-social or anti-social) X 2(target: individual or population) interaction emerged, $F(1, 218) = 11.89, p = .001$.

Why might these differences emerge? Miller (1999) suggested that consumers subscribe to a descriptive “norm of self-interest”, believing others to be generally motivated by selfishness. We identified two sources of constraint on consumers' selfishness. First, consumers have an internal moral conscience that pushes them to do the right thing. Second, there are social prohibitions on anti-social behavior that constrain it. Might forecasts of individuals versus populations differ because each target type (individual or population) focuses the forecaster on a different consideration? One hint from past research comes from findings that suggested that people were more sensitive to internal experiences when considering an individual than a group (Hsee & Weber, 1997). Also, Flynn and Lake (2008) found that people underestimated the impact of social pressure when considering an individual's behavior.

Participants in Study 3 rated, for each behavior, how much there would be internal pressure from one's moral

conscience, and how much there would be social pressure, to do the right thing. And indeed, hierarchical linear modeling showed that forecasts for individuals were influenced by how much it was assumed an internal moral conscience would lead one to behave pro-socially, whereas social forces were neglected. Forecasts for populations showed the reverse pattern.

Studies 4 and 5 confirmed this mechanistic account experimentally. In Study 4, participants saw the same set of selfless behaviors that had been slightly modified to speak to one's moral conscience or not. For example, in the *high appeal* to moral conscience condition, participants forecasted donation rates to Doctors Without Borders. In the *low appeal* to moral conscience condition, participants forecasted donation rates to the Chamber of Commerce. Consistent with our account, when selfless behaviors had a strong appeal to a person's moral conscience, individuals were judged as more likely to do them than were populations, $t(234) = 3.72, p < .001$. The asymmetry was eliminated when the behaviors had low appeal to moral conscience, $t(234) = 1.25, p > .24$.

In Study 5, participants learned about a dictator game that was played either publicly (high social pressure) or anonymously (low social pressure). Participants forecasted whether dictators would behave very anti-socially, giving only one penny to the other player. A 2(public pressure: high or low) X 2(target: individual or population) interaction emerged, $F(1, 86) = 4.58, p = .04$. Under high social pressure, both individuals and populations were seen as equally unlikely to be stingy, $t < 1$. But under low social pressure, populations were forecasted to be more anti-social, $t(86) = 2.40, p = .02$. Removing the social constraints on bad behavior only influenced forecasts of populations.

Psychologically, forecasting a consumer's behavior differs from forecasting consumers' behavior. Given this distinction has not been previously appreciated, we hope that these findings may help make sense of when and why there may be disagreements about forecasts of consumers' (or a consumer's) behavior. With an understanding of how these forecasts tend to differ, future research may uncover when forecasts of one type or the other lead to more accurate predictions of the future.

For more information, contact: ClaytonCrichter@haas.berkeley.edu

1.2 Individual Papers: Follow the Yellow Brick Road: Goals and Goal-Directed Behavior

Room: Four Seasons Ballroom 2

Chair: Pragya Mathur, City University of New York, USA

Start Right, End Right: Effects of Illusory Position on Goal Adherence

Maferima Touré-Tillery, University of Chicago, USA*

Ayelet Fishbach, University of Chicago, USA

People are more likely to make consumption choices consistent with their higher-order goals—and forgo temptation—if they believe these choices matter. Choices can matter because they contribute to the successful attainment of a goal. For example, a choice between partying and studying the night before an important exam is crucial to a student's academic success. Choices can also matter because they correspond to particular self- or social identities. Indeed, goal pursuit is driven not only by achievement, but also by the flattering self-definitions that may arise from resisting temptation and adhering to one's or one's society's higher-order pursuits (Gollwitzer et al. 1982; Markus and Nurius 1986; Markus and Wurf 1987; Prelec and Bodner 2003). For example, consumers tend to avoid certain unhealthy behaviors not only to attain their health goals, but also to avoid potentially negative identities associated with these behaviors (Berger and

Rand 2008; McFerran et al. 2010). In our work, we investigate particular circumstances under which choices are seen as more (vs. less) self-diagnostic, and hence elicit behavior consistent with higher-order goals, rather than short-term temptations.

We hypothesize that framing a choice as being at the beginning and end (vs. middle) of a constructed/illusory sequence of related or unrelated decisions will increase resistance to temptation and adherence to higher-order goals, because such choices will be seen as more diagnostic for self-inferences. Indeed, people are motivated to maintain a positive self-image (Greenwald 1980; Greenwald and Breckler 1985; Steele 1988), and we propose that they will manage these self-impressions more closely for actions seen as particularly diagnostic. For example, when strolling around a local mall on a quiet April Sunday, a consumer might be more likely to splurge on an expensive dress, or indulge on Cinnabons if she thinks of that day as the “middle of the year”, rather than the “start of spring” or the “end of winter,” because goal-inconsistencies will affect her self-image to a lesser extent in the “middle” (vs. “beginning” and “end”).

Four studies confirmed our hypothesis in the contexts of health and financial goals. In study 1, participants chose an entrée from a particular day’s menu of healthy options, and then received negative feedback indicating that their chosen entrée was the least healthy on the menu. We manipulated illusory position visually by presenting the day of the survey (e.g., Tuesday) on a chart as being at the beginning (Tue-Wed-Thu-Fri-Sat-Sun-Mon), middle (Sat-Sun-Mon-Tue-Wed-Thu-Fri) or end (Wed-Thu-Fri-Sat-Sun-Mon-Tue) of the week. As a result of the feedback, participants in the illusory beginning and end conditions rated themselves as less health-conscious than those in the illusory middle condition, suggesting that actions framed as beginning and end (vs. middle) are seen as more diagnostic of one’s characteristics.

Study 2, a field experiment, tested our hypothesis in naturalistic choice context using a different manipulation of illusory position. Participants from a health conscious student population were given a choice between an indulgent snack (Kit Kat bars) and a relatively healthier one (Raisin packets), while being exposed to one of three messages meant to elicit illusory beginning (“Start your afternoon! Grab a snack”), middle (“Keep your day going! Grab a snack”) or end (“End your morning! Grab a snack”). These temporal positions were illusory because all participants saw the message at midday, and depending on the condition, they were primed to think of that moment as the beginning, middle or end of a given time period. We found that participants exposed to the illusory beginning and end messages were more likely to adhere to long-term health goal—by choosing the healthier snack—than those exposed to the illusory middle message.

In the next two studies, we extended our findings to the context of financial goals. In study 3, participants read scenarios about making a purchase at a local coffee shop with a frequent buyer card that was far (beginning), close (end) or halfway (middle) to the reward, based on the number of stamps it featured. Participants then indicated the amount of money they would be willing to spend at their next visit to the coffee shop. We found that they intended to spend more money (i.e., splurge) in the middle of the reward program than at the beginning or at the end, suggesting that they were more likely to watch their spending (i.e., adhere to financial goals) at the beginning and end (vs. middle) of the reward program. This study shows that a consumer’s real or illusory position in a reward program—as determined by the number of stamps on his frequent buyer card—can influence his willingness to spend during a single purchase occasion.

Finally, Study 4 tested the moderating role of a goal’s self-relevance on the effects of illusory position. Participants with different levels of commitment to the goal of “saving money” indicated their willingness to pay for various products (see also, Vohs and Faber, 2007) and we manipulated illusory position through the title of the survey. Previous research suggests that such price assignments tasks tend to be highly correlated with actual spending behaviors (Carson et al. 1996). We found that at the illusory beginning and end, participants more (vs. less) committed to the saving goal were

willing to spend less on the featured items; however, at the illusory middle, more and less committed participant did not differ in their willingness to spend.

Taken together, these studies show that people are more likely to behave according to their higher-order goals for actions framed as the beginning/first or end/last (vs. middle) of a constructed sequence of actions because such illusory beginning and end (vs. middle) actions are seen as more self-diagnostic. On a practical note, these findings suggest that marketers and consumers can promote more virtuous decision making by framing actions as beginning/first or end/last.

For more information, contact: mtt@chicagobooth.edu

Does Depletion Impact our Ability to Initiate, or to Complete, a Self-Regulation Task?

Darlene Walsh, Concordia University, Canada*

Antonia Mantonakis, Brock University, Canada*

Steve Joordens, University of Toronto, Canada

The depletion model has been proposed to better explain why individuals fail to self-regulate. It states that the self has a limited reserve of some resource which is used whenever the self actively regulates, changes, or overrides responses. According to this model, when an individual engages in a task that requires self-regulation, they do not have the resources available to exert self-regulation on a subsequent task also requiring self-regulation. Most prior depletion research tests the basic propositions of the model and replicates the effect in different domains (Baumeister et al. 1998; Baumeister et al. 1994), though some research has focused on its underlying mechanism. For instance, one study found that the perception of time increases among depleted individuals. This produces a short-term focus, which in turn, causes them to think about current impulses and desires (Vohs and Schmeichel 2003). Another study demonstrated that low-level construals enhance a focus on resources, leading to depletion effects (Agrawal and Wan 2009). Our research continues to focus on understanding the depletion mechanism by asking which component of self-regulation is affected by depletion. That is, does depletion affect the initiation of a behavior, or the completion of that behavior?

To answer this question, we first created a self-regulation task to separate the initiation of the behavior from its completion. Specifically, participants were instructed to repeatedly type out a series of six-letter strings using only the index finger of their dominant hand, thereby requiring resources to inhibit the automatic behavioral tendency to use both hands (Dell'Amico et al. 2009; Crump and Logan 2010). The time it took participants to type the first letter of the string (initiation) and the time it took participants to type the remaining letters (completion) were recorded. Based on research showing how individuals' energy level affects the ambitiousness of their consumption choices (Gibbs and Drolet 2003), we proposed that depletion should lead to slower initiation relative to nondepletion conditions, but that once initiated, depletion should have no impact on completion. Two experiments tested this proposition.

Experiment 1 manipulated depletion and measured performance on a self-regulatory task simultaneously. Twenty-nine participants were asked to type out 8 six-letter strings; each string had to be typed 78 times consecutively. The first six times that participants typed each string were considered practice, and responses were not recorded. The remaining 72 experimental times were recorded; we refer to 6 experimental trials 1-6 as mini-block 1, trials 7-12 as mini-block 2, and so on. Half of the participants completed the first four blocks while the experimenter stood to the left of them (depletion condition); the remaining blocks were completed in the absence of an experimenter (nondepletion condition). The order for the other participants was reversed. This manipulation was used because self-attention concerns increase when the experimenter is present, and attention to the self is assumed to consume resources (Baumeister and Showers 1986; Baumeister and Steinhilber 1984).

A 2 (depletion vs. nondepletion) \times 12 (mini-blocks) ANOVA on the response initiation data (averaged across the experimental blocks) revealed a main effect of mini-block, indicating that response times decreased across the mini-blocks, $F(11, 308) = 21.60, p < .01$. An interaction, $F(11, 308) = 3.91, p < .01$, showed that depleted participants were slower to initiate their response relative to nondepleted participants, though this effect was strongest in the first three mini-blocks, weakening around mini-block 4, and disappearing by mini-block 5 (figure 1). The only significant effect in the response completion data was a main effect of mini-block, $F(11, 308) = 13.84, p < .01$, reflecting a faster responding as a function of learning (figure 2). Thus, depletion seems to influence response initiation, but not response completion.

To alleviate issues with manipulating depletion and measuring self-regulation simultaneously, Experiment 2 used a dual-task paradigm to manipulate depletion, where depletion was manipulated or not, and self-regulatory abilities were subsequently measured. And to address any concern that our findings are a result of “mere presence”, we used a depletion manipulation that did not rely on an experimenter looking over one’s shoulder. Seventy-two students participated in the one-factor (depletion manipulation: depletion or not) between-subjects design. They were first instructed to write out all their thoughts until the experimenter told them to stop. Participants in the depletion condition were told that they could think about anything they wanted, except a white bear. Participants in the nondepletion condition were given the same instructions, except they were told that they could think about anything, including a white bear (Tice et al. 2007; Vohs and Schmeichel 2003). All participants then completed one block (78 trials) of the self-regulation task.

A 2 (depletion vs. nondepletion) \times 12 (mini blocks) ANOVA on the response initiation data found a main effect of mini-block ($F(11, 759) = 19.49, p < .01$), such that response times decreased across mini-blocks, and an interaction between depletion and mini-block, $F(11, 759) = 1.92, p = .03$ (figure 3). Depleted participants were slower to initiate their responses relative to nondepleted individuals in the first three mini-blocks (all $ps < .05$), which weakened around mini-block 4 and disappeared at mini-block 5. Similar analyses on the response completion data found an effect of mini-block, $F(11, 759) = 25.34, p < .01$, reflecting faster responding as a function of learning. There was no effect of depletion on completion times, nor was there any interaction (figure 4).

Across two experiments, we find that depletion affects the initiation of self-regulation, but once initiation has occurred, depletion has no impact on its completion. This has clear implications for consumer behavior and the field of self-regulation. For instance, prior research shows that depleted dieters consumed more food relative to nondepleted dieters (Vohs and Heatherton 2000), and our findings imply that this occurs due to an inability to initiate self-regulation. Our findings also imply that if we initiate the self-control process (via external sources), then depleted and nondepleted individuals should both exert self-control; this is currently being tested. Research is also being conducted to rule out the possibility that our findings are a result of task difficulty.

Figures

Figure 1. Mean response initiation times in milliseconds across depletion conditions and mini-blocks (Experiment 1).

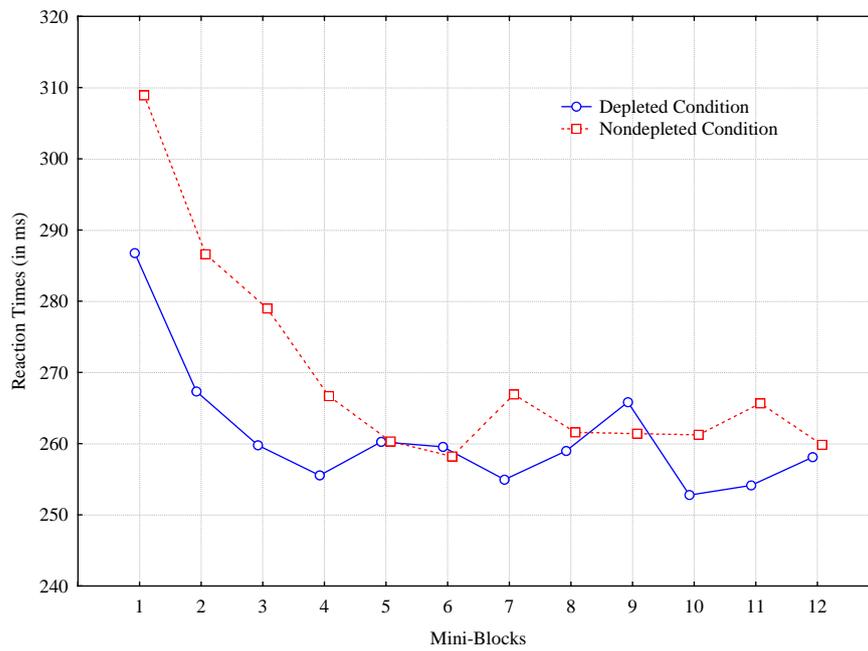


Figure 2. Mean response completion times in milliseconds across depletion conditions and mini-blocks (Experiment 1).

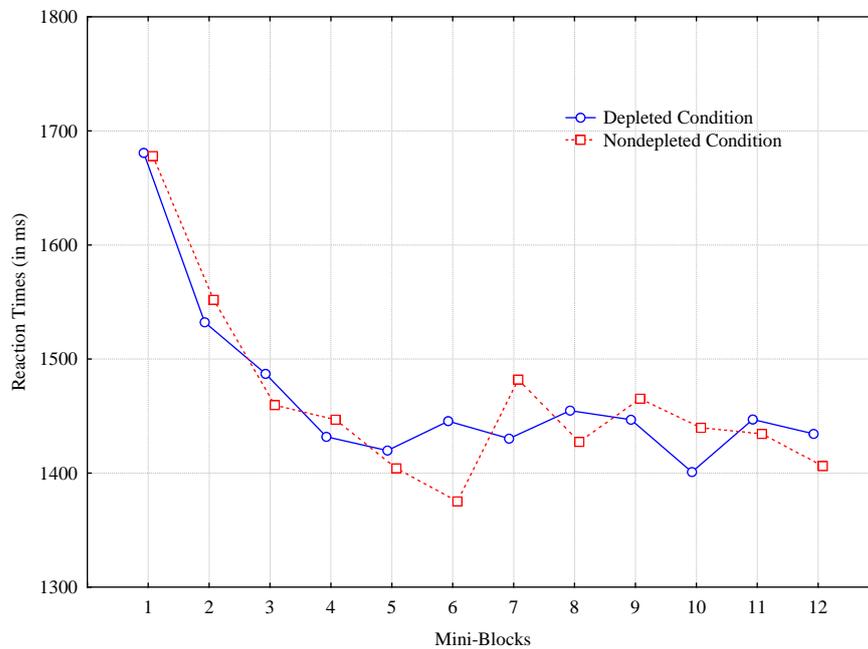


Figure 3. Mean response initiation times in milliseconds across depletion conditions and mini-blocks (Experiment 2).

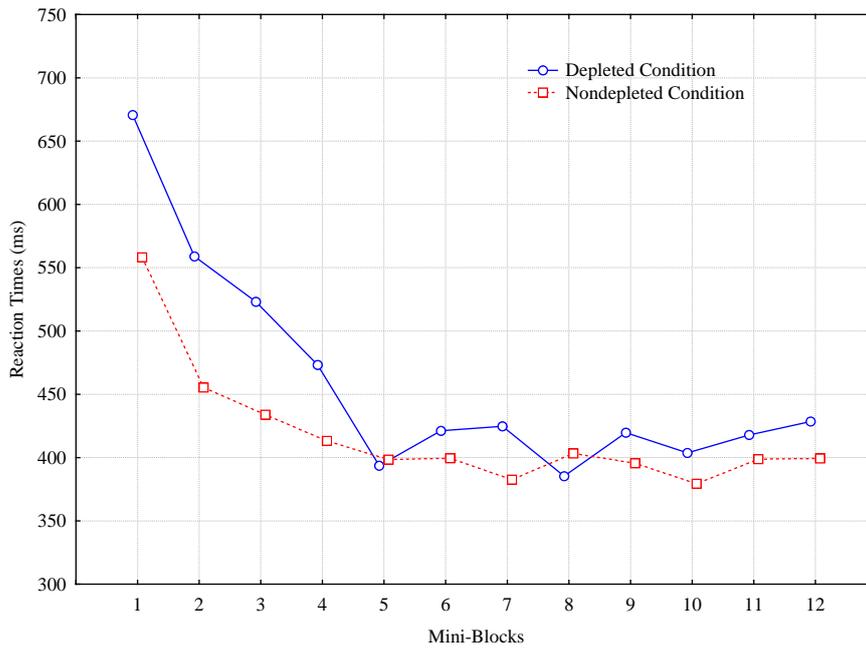
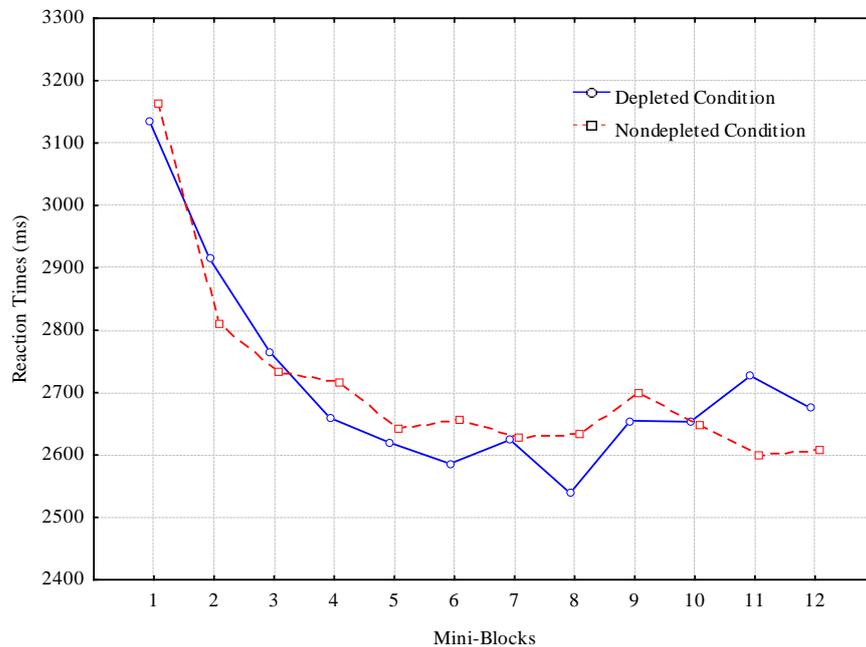


Figure 4. Mean response completion times in milliseconds across depletion conditions and mini-blocks (Experiment 2).



For more information, contact: dwalsh@jmsb.concordia.ca

Seeing Goals in Products: Effects of Goal Visualization on Willingness to Pay

Hae Joo Kim, Wilfrid Laurier University, Canada*

We demonstrate that when the aesthetics of a product (e.g., curvy bottle) visually depict an end-state that individuals are pursuing (e.g., hourglass shape), they express a greater willingness to pay for the product. While prior research has shown that easy-to-visualize goals increase motivation to pursue goal-facilitating behavior (Cheema and Bagchi 2011), the current research shows that goal visualization can increase the value of products which are no more effective in achieving the goal than products that do not symbolize the goal are.

In study 1, participants were presented with an ad for a bottle of water that was either curvy or straight (single factor design). After controlling for product information (e.g., quantity, brand), we find that when cueing participants of a diet goal with an ad slogan (i.e., "Want to get slimmer?"), they express a greater willingness to pay for the bottle of water when its shape is curvy as opposed to straight. Participants who were exposed to the curvy bottle indicated their ideal weight to be lighter than those who were exposed to the straight bottle, suggesting that the effect was driven by motivation and not semantic priming.

In study 2, a 2 (goal: diet vs. strength) x 2 (shape: thin rectangle vs. thick square) x 2 (attention: visual focus vs. verbal focus) mixed design was employed with the first two factors as between-subjects measures. Participants were first primed with either a strength goal or a diet goal through a scrambled sentence task (Chartrand and Bargh 1996). They were then asked to indicate their willingness to pay for an advertised box of Hershey's chocolates that contained individual pieces shaped as either "thick squares" or "thin rectangular slices" while caloric content and quantity were the same. An ANOVA on their willingness-to-pay revealed a significant interaction between goal and product shape. Participants who were primed with the diet (strength) goal showed a higher willingness-to-pay for the thin slices (thick squares). Furthermore, this interaction was moderated by the extent to which participants paid attention to the visual (vs. verbal) aspects of the advertisement (1 = paid attention to visual information only, 9 = paid attention to verbal information only). In the goal-shape match (vs. mismatch) conditions, the more participants attended to the visual information in the ad (i.e., image of an individual piece), the higher the price they were willing to pay for the box of chocolates.

In study 3, a 2 (goal: no goal vs. speed) x 2 (shape: speakers with woofers vs. speakers without woofers) between-subjects design was employed. Participants completed a priming task similar to the one used in study 2 where they were exposed to words either related or unrelated to speed. They were then asked to indicate their willingness to pay for a pair of home theater system speakers. Half of the participants were presented with a set of speakers that contained woofers (i.e., round shaped drivers embedded in a speaker). The remaining participants were presented with the same set of speakers that did not contain any woofers. After participants evaluated the product, they were given a battery of questions disguised as a student lifestyle survey. They were given a list of goals (e.g., to be a social/intelligent/charitable/athletic person) and asked to indicate on a 9-point scale the ease of attaining each of them (1 = very difficult, 9 = very easy). Included in the list was a critical item, i.e., the goal "to be a time-saving person." An ANOVA on the willingness-to-pay measure indicated a significant interaction between goal and product shape. Participants who were primed with the speed goal indicated a higher willingness-to-pay for the speakers when they contained woofers than when they did not. Meanwhile, those participants who were not primed with the goal expressed no difference in willingness-to-pay between the two products, ruling out the possibility that the mere presence of woofers changed the value of the speakers. A mediation analysis revealed that this interaction effect on willingness-to-pay was mediated by the ease of attaining the goal to be a time-saving person. In other words, participants who were primed with the speed goal and exposed to the speakers with woofers perceived the speed goal to be easier to attain, which in turn, increased their perceived value for the speakers relative to the other three conditions. This finding is consistent with past findings that show goal visualization increases perceptions of proximity or progress to a goal (Cheema and Bagchi 2011). Yet, unlike previous research where visualization elicited motivation to pursue instrumental behavior (e.g., swimming faster to a finish line when it was visible than when it was not), it shows that

visualization can elicit motivation to value a product that is not necessarily beneficial in attaining the goal.

Across the three studies, participants' liking (bad-good/dislike-like/negative-positive) for the differently shaped products was similar regardless of condition. This result is noteworthy since it suggests that the mere attractiveness of a particular shape cannot explain the main findings. It also lends support to recent demonstrations of a divergence between liking and wanting (e.g., Litt, Khan, and Shiv 2010).

Taken together, this research indicates that products which merely "resemble" goals individuals are pursuing can be valued more than products that have no goal resemblance despite there being no difference in their actual instrumentality. We show that a product which visualizes a goal the individual is pursuing creates an illusion that the goal is easier to attain. The findings have useful implications for marketers with respect to product design and target marketing.

For more information, contact: hkim@wlu.ca

Cultural Differences in Goal Type Preference and Commitment

Haiyang Yang, INSEAD, Singapore

Antonios Stamatogiannakis, IE University, Spain*

Firms, and sometimes consumers themselves, leverage goals to influence consumption behavior in a wide spectrum of domains. For example, HSBC offers the "Premier Investor Savings" account, which requires customers to maintain a minimum balance of \$25,000, and offers higher interest rates at higher balances. Similarly, goal management service providers such as Stickk.com enable their users to commit to losing or maintaining weight.

Depending on the relation between the actual and the desired state of the goal, goals can be broadly classified into attainment and maintenance goals. Attainment goals are those for which the actual state differs from the desired state (e.g., increase one's GPA from 3.5 to 3.6). Maintenance goals are those for which the actual and the desired states match, and need to remain matched (e.g., maintain one's GPA at 3.5; Stamatogiannakis, Chattopadhyay, and Chakravarti 2010). Extant research suggest that consumers tend to strive for better states when they focus on what they need to do; however, they tend to be satisfied with the present state when they consider what they have already done (Koo and Fishbach 2010). Further, consumers tend to perceive maintenance goals (e.g., maintain one's current level of savings) as harder and less attractive than objectively more difficult attainment goals (e.g., increase one's savings by a small amount; Stamatogiannakis et al. 2010; 2011). Finally, individuals with a prevention (promotion) focus tend to have a higher valuation of the outcome of a maintenance (attainment) task (Brodscholl, Kober, and Higgins 2007).

In this research, we focus on an underexplored but important aspect of consumer behavior—comparing the effects of the two goal types in a cross-culture context. Our findings make several contributions. First, we show that, goal commitment varies between the two goal types (attainment vs. maintenance). Second, we show that this effect is not universal but contingent on consumers' active self-construal (independent versus interdependent). Third, and perhaps most importantly, our research is one of the first to show how the two goal types should be leveraged differently across cultures to optimize goal-directed behaviors, a finding with clear managerial implications.

Our conceptualization builds on the finding that independent and interdependent self-construals coexist within each individual (Markus and Kitayama 1991). Though a person may chronically have a more independent (or interdependent) self-construal, situational priming can affect, albeit temporally, the accessibility of the non-dominant self-construal (e.g.,

Maddux et al. 2010). Further, independent self-construals have been shown to emphasize values such as seeking personal achievement, improving individual status, and being distinct (Markus and Kitayama 1991), which are congruent with the nature of attainment goals. On the contrary, interdependent self-construals emphasize values such as maintaining social relationships, conforming to others, and not standing out (Markus and Kitayama 1991), which are consistent with maintenance goals. Given this 'fit' between the two goal types and the respective cultural self-construals, we posit that for individuals with a more independent self-construal (e.g., Americans) attainment goals will be more favored than maintenance goals, but this will not hold, or will even be reversed, for individuals with a more interdependent self-construal (e.g., Chinese). Thus, American (vs. Chinese) consumers' willingness to commit to the two types of goals should differ significantly. Further, regardless of consumers' cultural background, primes that shift the makeup of the active self-construal (e.g., Gardner, Gabriel, and Lee 1999) should have an analogous effect on behavior.

We tested these predictions in two experiments. In Study 1, participants were randomly assigned according to a 3×2×2 mixed design, with goal scenario (physical exercise vs. savings, vs. GPA) as a within-participant factor, and goal type (attainment vs. maintenance) and participants' chronic self-construal (independent vs. interdependent) as two between-participant factors. As prior research has established that individuals from the United States have a predominantly independent self-construal, and individuals from China, a more interdependent one (Markus and Kitayama 1991; Triandis 1995), we recruited participants from these two countries. They were asked to read three goal scenarios that were presented in a random sequence. Approximately half of the participants read the attainment-goal versions (e.g., increase savings), and the rest, the maintenance-goal ones (e.g., maintain savings). Thereafter, participants evaluated the extent to which the person described in the scenario would persist in pursuing the goal—a standard measure of goal commitment (cf. Kruglanski et al. 2002). The goal type × self-construal interaction effect on goal commitment was significant. American participants reported significantly higher commitment ratings for attainment than for maintenance goals, but the opposite pattern was found for Chinese participants (though the differences were not always significant).

In Study 2, participants were randomly assigned according to a 2(self-construal prime: independent vs. interdependent) × 2(goal type: attainment vs. maintenance) between-participant design. Using a procedure adapted from Gardner et al. (1999), we primed either independent or interdependent self-construal by asking participants to read a paragraph of text and click on singular (vs. plural) pronouns (e.g., I, myself vs. we, ourselves). Participants were then asked to identify their favorite charity, and indicate the amount of money they would like to donate to it this year. Thereafter, they indicated the extent to which they were willing to pre-commit to donating exactly the same amount (a maintenance goal), or that amount plus 1 cent (an attainment goal) next year. As predicted, the priming × goal type interaction was significant: participants were significantly more willing to pre-commit to a maintenance (attainment) goal when primed with an interdependent (independent) self-construal.

Taken together, our findings contribute to the literature on attainment and maintenance goals. We show that commitment for the two goal types is contingent on consumers' self-construal. Specifically, attainment (maintenance) goals tend to be more appealing when an independent (interdependent) self-construal is, chronically or temporarily, active. From a managerial perspective, our research yields actionable insights for firms with products and services that leverage the two types of goals (e.g., banks, fitness centers, etc.). Our findings suggest that when an independent self-construal is more dominant (e.g., Americans), attainment-goal framing are likely preferred over maintenance-goal framing, but the opposite is true when an interdependent self-construal is more dominant (e.g., Chinese).

For more information, contact: antonios.stamatogiannakis@ie.edu

1.3 Symposium: What's Outside the Box Helps to Think Out of the Box: Interplay between Incidental Environmental Contexts and Creativity

Room: Desert Willow

Chair: Darren Dahl, University of British Columbia, Canada
Ravi Mehta, University of Illinois at Urbana-Champaign, USA

Are People of Plenty Less Creative: Abundance Psychology and Creativity

Ravi Mehta, University of Illinois, USA*
Meng Zhu, John Hopkins Carey Business School, USA

The face of human society is ever changing. As we moved into late modern era as an industrialized society and mastered mass production, consumerism and attendant over acquisition became order of living (Côté 1993, 1996; Riesman 1950). Abundance started to supplant scarcity, especially in first world societies. The modern society is also experiencing a growing role of creativity in consumption environments. On one hand, consumers engage in everyday creative behavior such as home décor and fashion, (Burroughs and Mick 2004; Burroughs, Moreau and Mick 2008), on the other hand, many businesses thrive on consumers' ability and desire to be creative.

One question that then arises is, how does this increasing abundance in our society affects creativity in consumption environments. Or more importantly, how incidentally activating abundance versus a scarcity mindset affect consumers' creativity. We conceptualize abundance to be an excessive supply of resources whereas scarcity refers to insufficient supply of resources (Zhu and Kalra 2011). Will an abundance mindset (vs. a scarcity mindset) lead us to be more creative? We argue just the opposite. Past research has shown that existence of constraints induces novel ways of solving problems (Moreau and Dahl 2005). That is, constraints make people move away from path of least resistance (POLR), thereby resulting in higher creativity. Hence, we argue that when induced with scarcity mindset consumers will approach a given problem from various perspectives. That is individuals will overcome functional fixedness (Ward, Smith, & Finke, 1999) and explore for solutions more broadly leading to higher creativity. On the other hand when abundance cues are salient, individuals may not have any motivation to move away from POLR. Thus we should observe higher degree of functional fixedness and hence narrower exploration of solutions leading to lower creativity levels.

Study 1 tested our basic hypothesis that abundance (vs. scarcity) mindset will lead to lower creativity. To manipulate abundance mindset, participants were asked to write a paragraph. While one third of the participants wrote the paragraph about 'Growing up in a society with abundant resources' (abundance condition), one third wrote about 'Growing up in a society with scarce resources' (scarce condition). Rest of the participants were in control condition and did not do anything. Then all participants were presented with 10 RAT items and their responses were assessed as a measure of creativity (Mednick 1962). As expected participants primed with abundance cues demonstrated lower creativity as compared both the participants primed with scarcity cues and the ones in control condition. Also participants in scarcity condition demonstrated higher creativity as compared both the control and abundance participants.

Second study examined the mechanism through which abundance (scarcity) mindset affected creativity. Specifically, we assessed whether abundance (vs. scarcity) mindset led to higher functional fixedness leading to lower creativity. Abundance mindset was manipulated as in study 1. All participants were then asked to generate creative uses of brick (Friedman and Forster 2001). To assess the creativity of the uses generated, a set of 12 judges rated responses on

creativity. Another set of 12 judges rated each of the uses on functional fixedness (how different was the idea from usual use of brick). As in previous study uses generated by people in abundance mindset were judged to be less creative as compared to the uses generated by people in scarcity mindset. Also, we observed that functional fixedness mediated the effect, such that abundance mindset led to higher functional fixedness causing lower ratings on creativity of the uses generated.

Study 3 further provided support for functional fixedness as the underlying mechanism. In this study, besides manipulating abundance mindset we also manipulated functional fixedness. All participants were asked to generate ideas for a new kind of a computer keyboard. Those in functional fixedness condition were specifically told to generate ideas for a new type of a 'computer keyboard (the one you are using to type now)' or were simply asked to generate ideas for a new type of 'computer keyboard' (control condition). Two-way ANOVA revealed that participants in control condition demonstrated the results as observed in previous studies, that is, abundance (vs. scarcity) mindset led to lower creativity. However, under functional fixedness condition no difference was observed between abundance and scarcity conditions.

In summary, we propose and demonstrate that while scarcity mindset may induce critical elements necessary to stimulate the creative process, abundance mindset will enhance functional fixedness and narrower exploration of solutions and ideas thereby impairing consumer's creativity.

For more information, contact: mehtar@illinois.edu

Dim or Bright? The Influence of Illuminance on Creativity

Chen Wang, University of British Columbia, Canada*

Rui (Juliet) Zhu, University of British Columbia, Canada

Jennifer Argo, University of Alberta, Canada

Creativity prevails in the consumption domain. Although a large body of extant research has been directed in exploring factors that influence consumer's creative performance in terms of the creative process itself (Dahl and Moreau 2007; Moreau and Dahl 2005), few attempts have been made to investigate how the external environmental factors affect consumer's creativity. Thus, the current research seeks to fill this gap by studying the effect of an important environmental variable, namely, ambient illuminance, on consumers' creative performance.

The central thesis of this research is that dim ambience reduces individual's inhibition, subsequently resulting in greater relational processing, thus leading to enhanced creativity. Prior research has provided relevant support for our theorizing. Specifically, research on environmental illuminance has shown that darkness promotes aggressive behavior (Page and Moss 1976) and dishonesty (Zhong et al. 2010) by reducing individual's inhibition. Moreover, according to Viskontas et al. (2004), inhibitory mechanisms allow one to selectively attend to relevant stimuli while suppress irrelevant features to the focal problem. Therefore, people with decreased inhibition may engage in remote association and relational processing, which are crucial elements to enhance creativity (Smith 1995). We report four studies to provide support for our hypotheses.

Study 1A demonstrates the basic main effect of ambient illuminance on creativity. We hypothesize that dim ambience leads to higher creativity, compared to bright ambience. In this study, the ambient illuminance was manipulated by the number of lights in the room. Specifically, in the dim condition, the room was lit by 2 fluorescent light tubes mounted to the ceiling, with the total luminance of 150 lux. By contrast, in the bright condition, the room was lit by 20

fluorescent light tubes, with the total luminance of 1500 lux. The main task was the shoe polish problem-solving task (Burroughs and Mick 2004), in which participants were asked to generate as many solutions as possible to polish shoes given a constrained situation. After the experiment, twelve judges were hired to evaluate the creativity of the generated ideas on 7-point scales. As predicted, we found that those in the dim room generated more creative solutions, compared to those in the bright room.

Study 1B seeks to investigate the underlying cognitive process influenced by the ambient illuminance. The focal task is an evaluation task towards an ad containing remotely related visuals. Hence, high evaluation of this ad may require individuals to engage in remote association and relational processing. We thus hypothesize that those in the dim (versus bright) room may show more favorable evaluation towards the ad by engaging in enhanced relational processing. In this study, the ambience manipulation remained the same as that in study 1A. In the focal task, participants were asked to evaluate the ad on seven items (i.e., good, favorable, appealing, effective, impactful, persuasive, well-executed) on 7-point scales. These seven items were averaged to form an evaluation index. Consistent with our hypothesis, we found that those in the dim room showed higher evaluation towards the ad than those in the bright room.

Building upon studies 1A&B, study 2 probes the underlying process by directly testing the mediating role of the processing mode in the effect of ambient illuminance on creativity. Specifically, we predict that dim (versus bright) ambience leads to enhanced relational processing and subsequently results in heightened creativity. The ambience manipulation remained the same as the previous studies. To measure creativity, we used the Remote Associates Test (RAT; Mednick 1962), a task commonly used to test creative thinking. In this task, participants were asked to generate the missing target word, based on the given stimulus words that were related to the unreported target word. To assess the underlying cognitive process, we adopted the recall task from Battig and Montague (1969). In this task, participants were given a list of 36 items belonging to six categories and were asked to examine them carefully for future task. After extensive filler questions to clear memory, participants engaged in a free recall task and subsequently a cued recall task with the category names given. As predicted, those in the dim condition generated more correct answers on RAT than those in the bright condition. More importantly, the adjusted ratio of clustering (ARC; Hunt and Einstein 1981), indicating the degree of relational processing, mediates the relationship between illuminance and creativity performance.

Study 3 delves deeper into the process by testing the multi-mediation of disinhibition and relational processing. We hypothesize that dim ambience decreases individuals' inhibition, which fosters relational processing, thereby leading to heightened creativity. In the same lab setting, participants' creativity performance was assessed by using Mattress Task, in which they were asked to generate as many usages as possible for a new mattress. After the experiment, thirteen judges were hired to evaluate the creativity of the generated ideas on 7-point scales. To measure the underlying process, we included items that assess inhibition level (e.g., "I felt restraint while completing those tasks."), and used the recall task to generate ARC as that in study 2 to assess relational processing level. By following the *Multiple-Step Multiple Mediator Model* (Preacher and Hayes 2008), we demonstrated the multi-mediation effect, such that dim ambience reduced people's inhibition, leading to greater relational processing, thus subsequently enhancing creativity.

Taken together, this research advances our understanding of the impact of illuminance, an important ambience variable, on consumer's creativity. Across four experiments, we demonstrate that a dim (versus bright) ambience reduces individuals' inhibition, which leads to enhanced relational processing and subsequently results in heightened creativity. Our findings also have important practical implications. For example, manufacturers can provide more effective ambient lighting for the product design department, such that they can generate more innovative product ideas in a more efficient manner.

For more information, contact: chen.wang@sauder.ubc.ca

Problem Solving In the Face of Death: The Interactive Impact of Mortality Salience and Locus of Control on Creativity

Haiyang Yang, INSEAD, Singapore*

Amitava Chattopadhyay, INSEAD, Singapore*

From natural disasters (e.g., earthquakes, hurricanes) to terrorism and wars (e.g., September 11) to social unrest (e.g., riots, murders) to accidents (e.g., car/plane crashes, train derailments), we are constantly exposed to information that makes our own mortality salient. At times, we may even be quite close to such misfortunes (e.g., living in New Orleans during Hurricane Katrina, working in Japan during the Fukushima nuclear emergency). This begs an important managerial question: What kind of individuals are better problem solvers in the face of [these reminders of] death.

Many may predict that individuals with high internal locus-of-control—those who believe that event outcomes are primarily controlled by their own efforts and actions—are better problem solvers in these dire situations. Indeed, a survey of mid to senior level executives at a large logistics firm revealed that the majority (67%) would put high locus-of-control managers in charge, in crisis scenarios (e.g., natural disasters or terrorist attack that resulted in a major loss of life). But to what extent is this intuition correct? The current research investigates this question and sheds light on the impact of mortality salience on creative problem solving.

Extant research shows that mortality salience, or awareness of one's death, elicits existential anxiety and, to buffer against this paralyzing anxiety, people deploy terror management strategies to create a sense of meaning and order, seeking to transcend death (e.g., Solomon, Greenberg, & Pyszczynski, 1991; Greenberg, Solomon, & Pyszczynski, 1997). Because cultural values provide meaning and structure to one's world and represent permanence beyond any individual's demise, mortality salience intensifies people's adherence to their cultural values and worldviews (e.g., Greenberg et al., 1990; Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). This effect has been shown to be unique to death (as opposed other aversive events) and occurs outside of consciousness (Greenberg, Pyszczynski, Solomon, Simon, & Breus, 1994).

While numerous studies on terror management theory have focused on the impact of mortality salience on evaluations of self and others (see Burke, Martens, & Faucher, 2010 for a review), the current understanding of how mortality salience impacts individuals' problem solving ability is relatively limited. The research on this subject to-date shows that the motivation for problem solving (i.e., for self-interest vs. one's community) can moderate the impact of mortality salience (Routledge, Arndt, Vess, & Sheldon, 2008). However, the cognitive mechanism underlying the effect of mortality salience on problem solving remains to be clarified. Seeking to fill this gap in the literature, the current research proposes that mortality salience inhibits access to information outside of one's conventional knowledge—as a means to protect the structure and stability of one's knowledge repertoire that stores and is used to make sense of cultural values and worldviews. Consequently, mortality salience is likely to hamper access to divergent information in memory, impairing creative problem solving ability.

Further, given that death represents the ultimate form of loss of control for human beings—we cannot prevent our eventual demise nor exert any control over post-mortal events (Becker, 1973), mortality salience may impact people with different control beliefs differently. Those who believe that event outcomes are primarily controlled by their own efforts and actions (high internal locus of control) are likely to be more affected by mortality salience than those with moderate internal control beliefs (i.e., they have control over only some events), as the former group's control beliefs

are irreconcilable with the notion of death, and hence elicit stronger terror management behaviors. Therefore, while individuals with high internal locus of control can be more creative problem solvers in many situations (e.g., Burroughs & Mick, 2004), their creativity ability is likely to be inferior to those with moderate level of internal locus of control under mortality salience.

Our propositions were tested in three experimental studies. Study 1a examined whether mortality salience (MS) inhibits access to divergent knowledge. Participants first responded to a locus of control scale (Rotter, 1966). Following a widely used TMT paradigm (Burke, Martens, & Faucher, 2010), participants were then asked to write down thoughts regarding either their own death (MS condition) or viewing TV programs (control condition). Next, they completed the Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988), which captured participants' affective states and served as a delay task (cf. Pyszczynski, Greenberg, & Solomon, 1999). Thereafter, participants in both conditions were asked to write down all the place names they could think of with "A" as the first letter. Consistent with the hypothesis that mortality salience inhibits access to divergent information in memory, participants in the MS condition wrote down significantly fewer foreign place names (e.g., Algeria, Antarctica, Australia) than those who in the control condition. Further, a significant interaction effect between the locus of control measure and mortality salience manipulation was found. Analysis of the interaction revealed that, in the MS condition, participants with high internal locus of control wrote down significantly fewer foreign place names than those with moderate internal locus of control; however, the opposite was true in the control condition.

The experimental procedure for Study 1b and 2 was similar to that of Study 1a. In Study 1b, a set of Remote Associate Test (RAT; Mednick, 1962) questions was utilized to investigate the impact of MS on participants' ability to connect disparate semantic concepts. In Study 2, participants were given a managerial decision making task—deciding what new business should go into a commercial property where a restaurant had just gone bankrupt (adapted from Goncalo & Staw, 2006). Providing further support for our hypotheses, participants in the MS condition correctly answered fewer RAT questions (Study 1b) and were more likely to follow the precedence, i.e., using the space for a restaurant again (Study 2). Locus of control moderated the effect of MS on participants' responses in both studies. While those with high internal locus of control exhibited better performance in the control condition, they were outperformed by those with moderate locus of control in the MS condition. Finally, ruling out an affect-based account of the results we found in the three studies, including the PANAS scores in the analyses did not change the findings.

Overall, these results not only shed light on the impact of mortality salience on information accessibility and creative problem solving, but also illuminate the role of control beliefs in terror management theories.

For more information, contact: Haiyang.YANG@insead.edu

1.4 Individual Papers: Gentlemen Prefer Blondes: Judgment and Decision-Making

Room: Palo Verde

Chair: Gerald Häubl, University of Alberta, Canada

Decision Quicksand: How Trivial Choices Suck Us In

Aner Sela, University of Florida, USA*

Jonah Berger, University of Pennsylvania, USA

People often get mired in decision making. But while it is clear why important decisions, such as what house to buy,

deserve a good deal of time and effort, why people get stuck in unimportant decisions is less clear. We sometimes agonize over what toothbrush to buy, what entrée to order, or what shade of white to paint the kitchen. In such instances, choosing often becomes more difficult when we try to resolve it through deliberation, as if sinking in quicksand. But while such experiences are quite common, why do they occur?

We propose that metacognitive inference contributes to a phenomenon we call “decision quicksand”. Our central premise is that people use the ease or difficulty experienced while making a decision as a cue which guides how much further time and effort to spend. People hold naïve theories according to which more important decisions should be more difficult (Schrift et al. 2011). Consequently, experiencing difficulty in choice may lead people to perceive the decision as more important which, in turn, should increase the amount of time and cognitive effort they are motivated to expend (Chaiken and Maheswaran 1994).

Ironically, however, these effects are more likely to occur for unimportant decisions than important ones. Effects of metacognitive experiences are driven by the perceived diagnosticity of the experience (Wänke et al. 1995). Namely, it is not metacognitive difficulty by itself, but rather unexpected difficulty that informs judgment (e.g., “I thought this should be easy, but it’s not”). Consequently, because decisions on important matters are expected to be tough, real-time experiences of difficulty provide little added information about their importance. For less important issues, however, subjective decision difficulty is more unexpected, and therefore more likely to serve as a metacognitive cue for how important it is to get the decision right. Though it may not change how people see the issue as a whole, making a good decision in that particular instance may come to be seen as more important.

Four experiments support this perspective. In experiment 1, Amazon Mechanical Turk workers chose a real job assignment for completion at a later date. Half the participants were told that their choice was binding and permanent (high-importance condition), whereas the other half were told that their choice was not binding (low-importance condition). Participants then selected their preferred job assignment either from a difficult set, which included 4 options and multiple tradeoffs among attributes, or from an easy set which included two options, one nearly dominated by the other. The results indicated that increased decision difficulty led people to spend more time deciding, but this effect was particularly pronounced when the decision had been framed as unimportant. Moreover, when faced with difficult tradeoffs, people actually spent more time on a less important decision than they did on a more important one.

Experiment 2 provided direct evidence regarding the process underlying decision quicksand. This time, choice difficulty was manipulated through disfluency, keeping the options themselves the same across conditions. People chose between two flight options described using either regular (fluent) or degraded (disfluent) font. We also manipulated decision importance by describing the decision as related to either an important or unimportant meeting. In addition, to examine the role of misattribution, we added a condition in which participants were prompted to correctly attribute difficulty to font quality (Novemsky et al., 2007). Consistent with our prediction, increased difficulty led people to spend more time deciding, but only when the decision originally seemed unimportant (i.e., when difficulty was unexpected). Further, the effect disappeared when difficulty was attributed to its true source (the font). Finally, we also collected measures of perceived decision importance, and consistent with our metacognitive explanation, they mediated the effects.

We labeled this phenomenon decision quicksand not only because it leads people to spend more time on unimportant decisions, but because, like quicksand, exerting effort to get out may lead people to sink down even further. Experiment 3 examined how experiencing metacognitive difficulty in unimportant decisions can drive people to expand their search and voluntarily seek additional options, which in turn should further increase decision time and difficulty (Iyengar and Lepper 2000).

We used a similar design to that used in experiment 2. But rather than measuring how much time participants spent on the decision, we asked them to indicate how interested they were in seeing more options before making their decision. As expected, processing difficulty did not influence participants' tendency to request more options when the decision had been framed as important. However, when the decision had been framed as unimportant, processing difficulty increased participants' tendency to request more options. Thus, metacognitive inferences from decision difficulty not only lead people to get caught up in unimportant decisions, but they can further suck people in by leading them to seek additional options which complicate the task even further.

If people form inferences about decision importance from their own decision efforts, then not only might increased perceived importance lead people to spend more time deciding, but increased decision time might, in turn, validate and amplify these perceptions of importance, which might further increase deliberation time. Thus, inferences from difficulty may not only impact immediate deliberation, but may kick off a cycle that leads people to spend more and more time on a decision that initially seemed rather unimportant.

Experiment 4 tested this possibility. In addition to manipulating decision importance and difficulty, we also manipulated perceived elapsed time and examined the resulting consequences on further deliberation. In addition to the same basic design as experiment 2, we manipulated how much time participants thought had elapsed by displaying a running clock alongside the choice option. In the normal condition, the clock's second hand completed a full circle every 60 seconds. In the fast condition, the hand was sped up (completed a circle every 15 seconds).

The results indicate that perceptions of time spent deciding further contribute to the tendency to spend excessive time in unimportant decisions. Increased difficulty again led people to spend more time making a relatively unimportant decision, relative to if the decision was important, but this increase was exacerbated when time seemed to go by faster (i.e., when participants felt that more time had elapsed). Ironically, feeling like one has spent more time led people to invest even more time, causing them to get mired even further in an unimportant decision.

Taken together, the present research suggests that, while decision difficulty can mechanically cause decisions to take longer, it can also have additional detrimental effects on decision time. Metacognitive inference can make unexpectedly difficult decisions seem more important which, in turn, increases people's tendency to get mired in them. Ironically, this process is more likely to occur for unimportant decisions because people expect them to be easier. The paper concludes with a discussion of the theoretical importance of our findings, as well as their practical implications for decision-makers' wellbeing and decision satisfaction.

For more information, contact: anersela@gmail.com

When Two is Better than One: Polarization and Compromise Effects in Unrestricted Choice

Andrea Bonezzi, Northwestern University, USA

Alexander Chernev, Northwestern University, USA

Aaron R. Brough, Pepperdine University, USA*

When faced with a decision involving tradeoffs between the available choice alternatives, consumers often attempt to resolve decision conflict by selecting a compromise option (Simonson 1989; Simonson and Tversky 1992). In particular, prior research on the compromise effect has shown that the choice share of an option increases when it becomes the middle alternative in a choice set, rather than one of the extremes (Kivetz, Netzer, and Srinivasan 2004). Choosing a

compromise option resolves conflict by enabling consumers to minimize tradeoffs between attributes of the available options by avoiding the lowest levels of performance on any single attribute (Simonson and Tversky 1992).

Most of the existing research on the compromise effect, however, has investigated situations in which consumers are restricted to choosing a single alternative from a given set of options (Benartzi and Thaler 2002; Dhar and Simonson 2003; Simonson and Nowlis 2000). In reality, however, purchase quantity is often discretionary and consumers frequently choose multiple items. This raises the question of whether and how removing the single-option restriction from the choice task will influence consumer preferences for how to resolve decision conflict.

In this research, we argue that when choice is unrestricted, consumers tend to resolve decision conflict by choosing multiple options with extreme attribute values rather than a single compromise alternative. We propose that this polarization effect is a function of the degree of decision conflict experienced by consumers. In particular, we argue that preference for multiple extreme options is more pronounced when decision conflict is high rather than low, a prediction opposite to previous findings in the context of restricted choice, which show that heightened decision conflict increases preference for the compromise option at the expense of the extremes. We attribute this polarization effect to consumers' desire to maximize gains on each attribute, rather than settling for intermediate performance on both.

We documented this polarization effect in unrestricted choice across three empirical studies. In experiment 1, we documented the polarization effect by showing that when choice is unrestricted, choice share of the compromise option declines as consumers opt to resolve decision conflict by selecting multiple extreme options rather than a single intermediate one. Consistent with the compromise effect, choices across four product categories showed that when participants could select only one of three available options (ABC), preference for B was higher than when the set consisted only of AB or BC. However, when participants were permitted to select two options, preferences shifted toward the combination AC rather than B. For example, in the headache medications category, participants were shown three options which varied in how quickly they relieved pain (onset) and how long they lasted (duration). In restricted choice, people preferred medication B, which had a moderate onset and moderate duration. However, in unrestricted choice, preference for B declined and instead people preferred a combination of two extreme medications—A, which had the shortest onset but shortest duration, and C, which had the longest onset but longest duration. This polarization effect was consistent across each of the four categories tested.

In experiment 2, we provided evidence that choice conflict drives this polarization effect by showing that the polarization effect becomes more pronounced as decision conflict increases. We manipulated conflict by varying the range of attribute values of the two extreme options (A and C) while holding constant the attribute values of the compromise option (B). For example, in the sunscreen category, the difference in UVA protection between the two extreme options A and C was 40% in the low conflict condition but 80% in the high conflict condition. These results are consistent with our theory that the polarization effect occurs as consumers attempt to resolve conflict differently in unrestricted versus restricted choice.

In experiment 3, we provided further evidence for the underlying process by showing that the polarization effect is more likely to occur when consumers focus on maximizing gains rather than minimizing losses. Prior to articulating their preferences, participants in one condition listed the advantages of each option in the choice set, whereas participants in another condition listed the disadvantages of each option. Results indicated that the polarization effect in unrestricted choice was attenuated among participants who focused on the disadvantages rather than on the advantages of each option.

The present research provides an important contribution to the literature on choice conflict and the compromise effect.

Contrary to prior findings that in restricted choice consumers attempt to resolve decision conflict by selecting a compromise option, we show that in unrestricted choice, consumers are less likely to select the compromise option and instead display a preference for extreme options. Our results further suggest that the greater the conflict a consumer experiences when deliberating about the different choice options, the more likely he is to choose multiple extreme options rather than a single intermediate one when choice is unrestricted. From a conceptual standpoint, our findings lend support to the notion that the polarization effect occurs because people wish to resolve conflict by maximizing gains; polarization is likely to occur when people focus on the advantages of having both options, but is likely to be attenuated when people recognize the disadvantages of choosing extreme options.

For more information, contact: aaron.brough@pepperdine.edu

The Effect of Numerical Framing on Willingness to Help and Its Underlying Process

Yun Lee, University of Iowa, USA*

Nara Youn, Hongik University, Korea

William M. Hedgcock, University of Iowa, USA

Previous research has found that anchoring effects are remarkably robust, neither depending on anchor values' informativeness (Tversky and Kahneman 1974), judges' motivation (Nunes and Boatwright 2004), expertise (Northcraft and Neale 1989), nor careful attention to the anchor (Brewer and Champman 2002). Recent demonstration of the impact of subliminal anchors (Adaval and Monroe 2002; Mussweiler and Englich 2005; Rooijen and Daamen 2006) imply that such anchoring effects may emerge not by the central, but by the peripheral route. For example, Rooijen and Daamen (2006) found that a significant subliminal anchor effect occurred only among those who were under time pressure. Similarly, Critcher and Gilovich (2008) reported that participants who could not recall the anchor value were more susceptible to the anchor's pull than those who could correctly recall it. Further, Gunasti and Ross (2010) showed that participants under low (vs. high) need for cognition used "the higher, the better" logic for numerically framed products' evaluations, and preferred the ones using high (vs. low) numbers irrespective of the products' attributes.

These findings suggest that a numerically framed message may also influence its persuasiveness and this may be more pronounced under a heuristic than a systematic processing mode. The current research tests this prediction and the mechanism that underlies these effects in three studies.

In Study 1, participants were randomly assigned to one of four conditions in a 2 (processing mode: heuristic vs. systematic) \times 2 (number: high vs. low) between-subjects design. For systematic processing manipulation, half of the participants were told that the charity program was targeted exclusively to college students and would soon be launched in the local area. The other half were told that this charity program was still in the development stage and this survey was conducted on a huge sample to receive preliminary feedback. Participants were then presented with the charitable campaign ad about supporting victims of domestic violence through old phone donation and battery recycling. The program name was either identified as Hope Line 3000 or Hope Line 3. The 2 (processing mode) \times 2 (number) ANOVA on attitudes toward the Hope Line campaign yielded a significant interaction effect ($F(1, 53) = 9.45, p < .005$). As predicted, participants presented with Hope Line 3000 expressed more favorable attitudes toward the program than those presented with Hope Line 3 ($M_{high} = 5.82, M_{low} = 4.99; F(1, 29) = 4.39, p < .05$ under a heuristic processing mode).

Study 2 was conducted to provide convergent evidence of the demonstrated effect on willingness to help. The design and procedure were similar to Study 1. A Red Cross program about helping people in crisis was used as stimuli and it was either identified as Champion 5000 or Champion 5. As hypothesized, participants' willingness to help was higher

for Champion 5000 (vs. 5) under a heuristic processing mode ($M_{high} = 5.14$, $M_{low} = 3.82$; $F(1, 29) = 5.82$, $p < .03$), but this effect disappeared under a systematic processing mode ($M_{high} = 3.57$, $M_{low} = 4.80$; $F(1, 27) = 3.44$, $p < .08$). More importantly, a series of regression analyses revealed that Champion 5000 (vs. 5) enhanced perceived effectiveness, and thus increased willingness to help under a heuristic processing mode.

Study 3 was conducted to test the robustness of the effect and to further investigate the underlying mechanism. For the processing manipulation, half of the participants were asked to count the total number of vowels used in stimuli (load), while the other half of the participants did not count the vowels (no load). Then they were presented with either a Simoon Life Line 91 or Simoon Life Line 19 campaign ad that had either a strongly or weakly endorsed argument (e.g., “100% (vs. 50%) of your financial donation goes toward helping Simoon”). The 2 (processing) \times 2 (number) \times 2 (argument strength) ANOVA on attitudes yielded a significant three-way interaction effect ($F(1, 98) = 5.48$, $p < .03$). Follow-up contrasts revealed that strong (vs. weak) appeals were more effective in general, and participants’ attitudes toward the campaign were more shifted by the numeric anchor values under heuristic ($M_{high} = 5.89$, $M_{low} = 4.54$; $F(1, 25) = 15.13$, $p = .001$) than systematic processing ($M_{high} = 6.05$, $M_{low} = 5.92$; $F(1, 26) = .32$, $p > .58$).

The findings contribute to the charity communications and anchoring literatures by showing *how* and *why* numerically framed charitable advertisements can increase or decrease willingness to help. The results also have managerial implications for charities, suggesting a strategic use of numeric framing of charitable ads to enhance communication effectiveness.

For more information, contact: yun-lee@uiowa.edu

Searching in Choice Mode: Consumer Decision Processes in Product Search with Recommendations

Benedict Dellaert, Erasmus University Rotterdam, The Netherlands

Gerald Häubl, University of Alberta, Canada*

Consumers often engage in an extensive search for available alternatives before making a purchase. An effective means of assisting consumers in their search is to provide them with recommendations that sort alternatives in terms of their predicted attractiveness. Such assistance may be provided by human advisors (e.g., realtors) or in the form of recommendations that are generated automatically by information systems. Recommendations of this type can result in better purchase decisions and enable consumers to find lower prices and higher quality items in large assortments (Diehl, Kornish, and Lynch 2003; Häubl and Trifts 2000).

Although prior research has demonstrated that product recommendations can affect decision outcomes, little is known about how such decision assistance influences consumer decision *processes* during product search. The present research seeks to fill this gap. This is particularly important because, despite the generally favorable consequences of recommendations for consumer welfare, there are also instances in which providing consumers with sorted lists of alternatives may lead to worse decisions (Diehl 2005). A better understanding of consumer decision processes during search with recommendations can shed light on the forces that might undermine the effectiveness of this type of decision assistance.

Our central thesis is that the presence of recommendations transforms the decision processes consumers use during sequential product search relative to searching without such assistance. In unassisted search, consumers’ natural decision orientation is forward-looking and directed at determining, at each stage of the search, whether or not an additional alternative should be inspected (Adam 2001; Häubl, Dellaert, and Donkers 2010; Weitzman 1979). By

contrast, because recommendations selectively identify attractive products and thus lead consumers to anticipate inspecting fewer alternatives, we propose that this type of decision assistance diminishes the focus on whether to continue searching at each stage (i.e., whether to look for an additional attractive product) and instead increases the focus on identifying the best alternative among those encountered so far. Thus, we predict that recommendations shift consumers' decision orientation during product search from one focused on when to stop inspecting new alternatives (which governs unassisted search) towards one of evaluating and comparing alternatives that have already been inspected (which is common when choosing from pre-determined sets of alternatives).

This proposed shift to what we refer to as "searching in choice mode" implies two testable hypotheses. The first is that, relative to unassisted search, recommendations cause consumers to be less inclined to evaluate a newly inspected product only by comparing it to the best alternative discovered so far (as prescribed by normative models of search) and more inclined to make broader comparisons with other already unveiled alternatives (H1). This should be reflected in consumers' attention to (or "reinspection" of) previously encountered alternatives during the search.

The second prediction is that recommendations transform how consumers' stopping decisions are influenced by the amount of variability in product attractiveness that they experience in the course of their search, with greater variability causing consumers to terminate their search sooner (H2), which is opposite to what is commonly observed in unassisted search (where greater variability promotes more extensive search). This prediction is based on the idea that, in choice mode, the decision to continue searching is construed as a deferral of choice (Dhar 1997; Dhar and Simonson 2003) from the set of alternatives already inspected, rather than as an attempt to discover an attractive new alternative.

Evidence from three experiments provides strong support for the proposed shift in consumers' decision orientation towards a choice mode when searching with recommendations.

In Experiment 1, participants completed a computer-based product search task in which they viewed the descriptions of as many alternatives as they wished, one at a time, and ultimately chose one of the inspected alternatives. The key between-subjects manipulation was whether participants searched with recommendations (alternatives presented in descending order of their predicted attractiveness) or without such assistance (alternatives presented in random order). The results show that, as predicted, the presence of recommendations (1) promotes comparisons with alternatives other than the best previously encountered one and (2) leads to a positive relationship between variability in product attractiveness and the probability of terminating the search at a given stage, providing evidence of the proposed shift towards a choice mode when searching with recommendations.

Experiment 2 was designed to more directly (using process data) examine the hypothesis that recommendations induce a shift in the search decision process from comparing the currently inspected alternative only with the best previously encountered one towards broader comparisons with other inspected alternatives (H1). Beliefs about presentation order were manipulated by either informing participants that the alternatives would appear roughly in descending order of their attractiveness (recommendations) or not providing any information about the order of presentation (control), whereas the actual order in which the alternatives were presented was identical for all participants. The key process evidence obtained in this study was participants' reinspection of previously encountered alternatives other than the best one, in terms of both how frequently such reinspections occurred and the amount of time spent on them. The results provide clear support for the hypothesized shift towards broader comparisons among alternatives when search is aided by recommendations. In line with the notion of searching in choice mode, believing that the set of alternatives reflected product recommendations dramatically increased reinspection of alternatives other than the best previously encountered one.

Finally, Experiment 3 examined the predicted moderating effect of recommendations with respect to the impact of variability in product attractiveness on the stopping decision (H2) in a more tightly controlled setting than Experiment 1. We disentangled (1) participants' beliefs about whether the presentation order of the alternatives reflected recommendations and (2) the amount of variability in the attractiveness of the alternatives participants encountered in their search. As hypothesized, greater variability caused consumers to terminate their search sooner when they believed that they were given recommendations, whereas it led them to stop later when they believed that their search was unassisted. This pattern of results clearly supports the proposed shift in decision orientation towards a choice mode when searching with recommendations.

For more information, contact: Gerald.Haeubl@ualberta.ca

1.5 Symposium: Taken back into Context: How Brand Evaluations are Affected by the Competitive Context and Affect Subsequent Consumer Behavior

Room: Cottonwood

Chair: Nadav Klein, University of Chicago, USA

Framing the Game: How Positioning Brands in Competition Motivates Political Consumption

Neeru Paharia, Harvard Business School, USA*

Jill Avery, Simmons School of Management, USA

Anat Keinan, Harvard Business School, USA

A prominent narrative in contemporary consumer culture is one in which "category killer" brands like Amazon, Starbucks, Home Depot, and Wal-Mart are forcing mom and pop independent bookstores, coffee shops, hardware stores and retailers out of business. The narrative tells us that consumers are switching their loyalties from independently owned and operated businesses to big box retailers (Spector 2005; Hosein and Hughes 2006). Therefore, when big brands move in next door to small, independent businesses, sales for the small brands are expected to decrease.

However, despite their success, many category killer brands have attracted the ire of political activists who organize against them. In many instances, consumers have rallied around small, independent brands and have boycotted big brands. This activity suggests that consumers may be willing to forgo the oftentimes lower prices and broader assortments offered by category killer brands to express their political will in the marketplace and protect small, independent brands from aggressive competition.

We explore the effect of competitive framing, positioning brands in competition with one another, and show that small brands can paradoxically benefit from having a large competitor. Unlike other brand research that focuses on the dyadic relationship between a consumer and a particular brand, we provide a networked understanding of how consumers assess and relate to brands not in isolation, but as part of a competitive system. We explore the effects of competition in the marketplace and show how changing the competitive framing of the market situation positively and negatively affects consumers' support for the brands within it. Our results show that consumers' evaluations of brands are not dependent only on the dyadic interactions between a consumer and a firm, but rather that they are also influenced by the web of relationships the brand is entangled in with other brands.

In a series of six experiments, we show that the perceived competitive context in which a brand operates and the perceived competitiveness of each brand in that context can affect consumers' purchase interest and frequency, price sensitivity, and real choice. Using diverse competitive framing scenarios, in which a focal brand is positioned either

alone or in direct competition with another brand, and positioned either in balanced competition with a firm similar in size to them or in imbalanced competition with a firm larger or smaller than them, we examine how the competitive context affects consumers' responses. We find that the effect of competitive framing depends upon the presence of salient competition and the perceived balance of that competition. Consumers increase their preference for small, independent brands and decrease their preference for large, national brands when the two types of brands are framed as directly competing against one another.

We argue the effect of competitive framing is mediated by the politicization of the purchase episode. When the market is presented as a competition, consumers reframe the purchase situation, moving from assessing it in economic terms, in which consumers attempt to maximize the economic utility they receive from the product by obtaining the most value for the lowest cost, to viewing it in politicized terms. This changes their decision process and the attributes and decision criteria they use to choose. We also identify boundary conditions for our framing the game effect. Specifically, we show that making the competition more salient by moving from distal to proximal competition drives the effect. We also show that competitive aggression plays an important role. In unbalanced competition, large brands are punished for being a competitive aggressor, while small brands are rewarded when they aggressively compete.

For more information, contact: neeru@ethics.harvard.edu

The "Attribute-Trifling" Effect: Motivated Maintenance of Brand Loyalty by Underweighting Attractive Competing-Brand Attributes

Nadav Klein, University of Chicago, USA*

Aparna Labroo, University of Toronto, Canada

Despite earnest attempts to win consumers over by brands competing in the marketplace, consumer preferences remain remarkably stable. Billions of dollars of investments in marketing campaigns and promotions appear to succumb to a stubborn reality: brand switching is not the modal outcome in response to temporary price cuts and other promotions. This paper explores one reason why enticing loyal consumers to switch is so difficult and demonstrates the counteractive nature of brand loyalty in showing that the promotion of a clear advantage to a competing brand may boost the sales of the consumers' core brand.

Three studies demonstrate that consumers resist a temporary advantage (i.e. price, new feature) of a competing brand by selectively underweighting the importance of the advantaged attribute in the purchase decision. This "attribute-trifling" effect occurs only when consumers face a temptation to switch. Consistent with a motivational account, we find that underweighting does not occur when consumers do not need to make a choice. In an analysis of panel data, we further find that loyal consumers buy more of the core brand when the competing brand is on sale (controlling for core brand ad spending).

In experiment 1, PC laptop owners rated their loyalty to their laptop brand on a 9-point scale. They then imagined they were either in the market to purchase a new laptop or not, and saw a sheet of technological specifications of PC and Mac laptops, in which the new Mac models were shown to be significantly lighter than the new PC models. The prices of both brands were identical. Participants rated the importance of light weight in their purchase decision. We found that PC owners who were in the market for a new laptop rated light weight as less important than PC owners were not in the market. Moreover, this finding was moderated by the degree of self-reported brand loyalty. Participants very loyal to their brand (1 SD above the mean) underweighted the importance of light weight significantly while those not loyal to their brand (1 SD below the mean) did not.

In experiment 2, we investigated the implications of attribute-trifling on post-choice satisfaction. We relied on the construct of relationship norms to manipulate participants' ability to underweight the competing brand's advantaged attribute (Aggarwal, 2004). To invoke communal norms, participants in one condition wrote about their long-term relationship with their undergraduate institution. To invoke exchange norms, participants in another condition wrote about the costs and benefits of their investment of time and effort at college. Participants then made choices of school gear (T-shirts, hoodies, etc.) of their college and a rival college. The rival school's products were 20% more expensive than products representing participants' own school and thus more valuable in terms of money. The results demonstrated that participants following communal norms underweighted the importance of getting the best value for their choices. This underweighting was motivational, as participants did not underweight this attribute after having made their choices. Participants following exchange norms, however, could not underweight the importance of getting the best value because their decisions were based on cost-benefit considerations. The ability to underweight the advantaged attribute of the competing brand influenced post-choice satisfaction, as participants who underweighted were also more satisfied with their choices.

Research on goal conflict emphasizes both automatic and controlled processes (e.g. Fishbach, Friedman, and Kruglanski, 2003), and in experiment 3 we examined whether underweighting the advantaged attributes of competing brands was automatic or controlled. This experiment was similar to experiment 1, except that participants also performed a lexical decision task in which they identified target letter strings as words or non-words after being exposed to primes. The target strings were brands ("PC", "Mac") and the priming words were the attributes described in the sheet of technological specifications shown to participants as part of the experiment. Similar to experiment 1, we found that participants loyal to PCs underweighted the importance of light weight. Participants did not exhibit reduced accessibility to the competing brand when the prime word was related to light weight. We conclude that brand loyalty in response to competitive actions appears to be a controlled process.

To examine counteractive brand loyalty in the marketplace, we used the IRI panel data (Bronnenberg, Kruger, and Mela, 2008) of weekly purchases of boxed cereal. Because temporary discounts occur often in this product category, the advantaged attribute was price. We focused on the two most popular brands, Kellogg and General Mills. The data span 5 years (2001-2006), and we used the first 4 years to track consumer loyalty. Consumers who spent more than 50% of their cereal dollars on one brand were considered to be loyal to that brand. For household purchases during year 5 of the data, we regressed the number of units consumers bought of their core brand relative to the competing brand on the degree of consumer loyalty, whether the competing brand enjoyed a temporary price reduction, and relevant covariates. Our findings show that the interaction between the degree of brand loyalty and temporary price reduction of the competing brand yielded a positive coefficient. This suggests that the more loyal consumers were, the more likely they were to buy products of their core brand when the competing brand was on sale. Furthermore, when the core and competing brands were both on sale this effect did not hold. This suggests that loyal consumers counteracted the price reduction only when the competing brand had an advantage.

Together, our studies demonstrate that loyal consumers resist switching by assigning a lower decision weight to the advantaged attribute of the competing brand. We also show evidence that this counteractive underweighting can lead to the ironic outcome that loyal consumers respond to competitive actions by purchasing more of their core brand. Our findings shed light on the psychological processes underlying the remarkable endurance of brand loyalty. They also suggest that the way to win loyal consumers may be rooted in addressing their psychological needs to maintain brand loyalty rather than their desire to obtain the 'best' brand available.

For more information, contact: nklein@chicagobooth.edu

Putting Brands in their Place: How the Need for Control Keeps Brands Contained

Keisha Cutright, University of Pennsylvania, USA*

James Bettman, Duke University, USA

Gavan Fitzsimons, Duke University, USA

Most of us like to believe that we are in control—that we can make positive outcomes happen in our lives and avoid negative ones (Skinner, Chapman, and Baltes, 1988). This belief in personal control allows us to avoid the scary thought that outcomes in our lives may be randomly-determined and chaotic. But, what happens when our feelings of control are threatened? How do we avoid the fear of randomness in such times? This research demonstrates that one way that people respond is by seeking order and structure in their consumption environments. We argue that one way that individuals demonstrate this desire for structure is by imposing stricter mental boundaries around brands. In other words, when individuals' feelings of control are low, they should have a higher desire for brands to stay in their designated "place." A consumer with low feelings of control should therefore be more negative towards the idea of a new cake mix from Harley Davidson or a new perfume line from Play-Doh than those with high feelings of control. Such propositions violate the boundaries that have been set for the brand and undermine a consumer's ability to see a world of structure as opposed to one of chaos.

We tested this basic hypothesis in Study 1. Participants were randomly assigned to either a low or high personal control condition. In the low control condition, participants were asked to write about an experience that was threatening or scary where they were not in control of the outcome. In the high control condition, participants were asked to write about an experience that was threatening or scary where they knew they were in control of the outcome (adapted from Whitson and Galinsky, 2008). Participants were then asked to rate how well each of 20 different brand extensions "fit" with their brand. Specifically, they saw 10 brand extensions that were designated as poor-fitting extensions and 10 (with the same parent brands) that were designated as good-fitting extensions. They then indicated the degree to which they would consider buying each extension. As expected, when evaluating the low fit extensions, participants in the low control condition reported lower perceptions of fit than participants in the high control condition. In other words, the low control participants had erected tighter boundaries around the brands that would not allow the brands to "fit" with the new product idea. This led the low control group to rate the extensions lower than their high control counterparts. Importantly, this was not true when participants evaluated the good fitting extensions. In such cases, the brand extensions fit well within the boundaries that were set for the brand. Low control participants could therefore be just as positive about the extensions as the high control participants.

In Study 2, we wanted to directly demonstrate that threats to personal control lead to a higher need for order and structure and that this higher need for structure causes people to tighten the boundaries that they put around brands. Students were randomly assigned to one of two conditions in which they recalled having low personal control or high personal control, both in the context of a positive situation (Kay, Gaucher, Napier, Callan, and Laurin, 2008). Next, participants were asked to rate their need for order and structure (Neuberg and Newsom, 1993). Participants then read about a new vacation resort from Sony and rated how well the extension fit with the Sony brand and how likely they'd be to consider the extension on a future vacation. The results of this study were consistent with hypotheses. Participants in the low control condition reported a higher need for structure than participants in the high control condition. This higher need for structure led to lower perceptions of fit and lower overall brand extension evaluations.

Study 3 was designed to demonstrate that low feelings of control only lead people to be more likely to reject 'poor-fitting' items when individuals have not had an opportunity to assert a sense of structure over their environment.

In other words, if individuals are able to satisfy their need for structure in another way, they should not need to do so with brands.

The study had a 2 (personal control: low vs. high) x 2 (opportunity to structure: low vs. high) between-subjects design. First, participants were randomly assigned to either a low control condition or a high control condition (see study 1). Next, participants received an envelope with 50 coupons inside. Half of the participants were assigned to the high structure condition and were given an opportunity to organize the coupons however they liked. The remaining participants were assigned to the low structure condition and were asked to simply count the coupons. As the dependent variable, participants were then asked to make a real choice between several gift-packs that differed in perceptions of 'fit', but were equivalent on several other dimensions (e.g., perceptions of riskiness, uncertainty, price, quality, etc.). Specifically, participants chose one gift-pack from among six different gift-packs; two gift-packs consisted of good-fitting items (Mead notebook/Bic pens, Rold Gold pretzels/Dasani water) and four consisted of poor-fitting items (Mead notebook/Rold Gold pretzels, Mead notebook/Dasani water, Bic pens/Rold Gold pretzels, Bic pens/Dasani water). Results revealed that low control participants were less likely to choose a poor-fitting gift-pack than the high control participants, but only when they did not have the opportunity to assert structure in their environment with the coupons. When they received the opportunity to assert structure, the low and high control conditions did not differ from one another in their gift-pack choice.

Together, these studies illustrate that when individuals' feelings of control are threatened, they are likely to seek order and structure in the world around them. More specifically, this research demonstrates that individuals leverage brands as one tool for maintaining this sense of order and structure. It seems that when feelings of control are low, individuals just want their brands to stay put.

For more information, contact: kcut@wharton.upenn.edu

The Cognitive Consequences of Considering Low-Fit Brand Extensions

Kelly Goldsmith, Northwestern University, USA*

Ryan Hamilton, Emory University, USA

Launching new products is a risky and expensive endeavor. Accordingly, many firms attempt to mitigate this risk by introducing new offerings under existing brand names. A great deal of academic research has explored the factors that affect consumers' likelihood of accepting these brand extensions, finding that the perceived "fit" between the extension and the brand is a critical factor in predicting consumer interest (Aaker and Keller, 1990). However, in today's uncertain economy, many firms seek to maximize leverage from successful brands by broadening the scope of their product lines beyond exclusively high-fit extensions. This raises the question: How does having low-fit extensions in the marketplace affect consumers?

While recent research has begun to explore the factors that increase acceptance of low-fit extensions (Meyvis, Goldsmith and Dhar, 2011), no work to date has explored the consequences that such brand extensions might have for consumers. For example, if Crest, an oral care brand, were to introduce a line of facial products (e.g., moisturizer), how might consumers' experience of evaluating such products differ as compared to evaluating products that were higher in fit (e.g., Crest gum)? Although one could argue that offering a wider array of brand extensions only benefits consumers by way of increasing variety (Kahneman, Wakker, and Sarin, 1997), we propose that the presence of low-fit brand extensions may come at a cost.

Specifically, we argue that when the fit between the brand and the extension is low, greater cognitive effort will be required from consumer in order to reconcile the new offering with the existing brand image (Peracchio and Tybout, 1996). We propose that when there is a poor fit between a brand and an extension, evaluating such products requires expending more effort and can deplete consumers of the executive resources necessary for successful self-regulation (Baumeister et al., 1998). This prediction is consistent with research in social psychology demonstrating that trying to interpret “mixed signals” from others is depleting (Richeson, 2011).

We test this prediction across four experiments. In Experiment 1, all participants evaluated a series of brand extensions, which were either high in fit (e.g., McDonald’s BBQ sauce) or low in fit (e.g., Mrs. Field’s BBQ sauce) with the parent brand. Next all participants were given an unsolvable puzzle, as persistence on impossible tasks has previously been used to test depletion effects (Wan and Sternthal, 2008). In line with our predictions, participants exerted less effort on the task (showing more depletion) after evaluating the low-fit brand extensions. Those in the low-fit condition spent less time on the task than those in the high-fit condition ($M_{\text{low fit}}=174$ seconds vs. $M_{\text{high fit}}=376$ seconds; $p<.05$).

Having demonstrated our proposed effect, Experiment 2 tests for implications for consumer choices. Specifically, we examined if evaluating low-fit extensions would decrease choice deferral. Prior research has demonstrated that consumers defer choice only after effortful elaboration (Dhar, 1997). This suggests that consumers with fewer cognitive resources should be less likely to defer choice than those whose resources are intact. Experiment 2 replicated the design of Experiment 1, replacing the puzzle task with a choice task that described two different vacations and gave participants the option of choosing among them or deferring choice (Dhar, 1997). In line with our prediction, participants in the low-fit condition were significantly more likely to make a choice (less likely to defer choice; $P_{\text{low fit}}=21\%$ vs. $P_{\text{high fit}}=42\%$, $p<.05$).

Building on these results, Experiment 3 was designed to test for an important boundary condition. While we observe that evaluating low-fit brand extensions depletes cognitive resources, it is possible that if the brand extension were extremely low in fit (e.g., Exxon Milk), consumers would “give up” trying to resolve the inconsistency, which would result in less depletion. To test this, we manipulated whether participants evaluated brand extensions that were high, low or extremely low in fit (as determined by a pretest), then gave all participants an unsolvable puzzle. Consistent with our findings, participants in the high-fit condition persisted for significantly longer (7:55) than those in the low-fit condition (5:05; $p<.05$). More importantly, a trend analysis revealed the predicted inverted-U relation, such that depletion was more severe in the low-fit condition than in the extremely low fit condition (6:06; quadratic trend, $p<.05$).

The final experiment tested if the observed effect of depletion could be reversed by manipulating participants’ standard for fit. Half of the participants were told that an extension fits with a brand “when there is a clear and obvious connection between the product and the brand’s core meaning...for example, Diet Coke is a high fit with the Coke brand” (high standard condition). In the low standard condition, participants were told that an extension fits with a brand “when there is some sense of resonance between the product and the brand’s core meaning...for example, Tabasco ties are a high fit with the Tabasco brand” (low standard condition). All participants then evaluated the low-fit extensions used in Experiment 3. Finally participants were asked to complete several anagrams, one of which was unsolvable. We predicted that lowering the standard for fit would reduce the depletion effects documented in our other experiments. In line with our prediction, participants in the low standard condition persisted significantly longer than those in the high standard condition (84.1 seconds versus 59.6 seconds; $p<.05$).

Taken together, these results suggest that evaluating low fit brand extensions can have cognitive costs for consumers (Experiments 1 – 4) and that the costs can have consequences (choice deferral, Experiment 2). Further we find that one’s standard for “fit” plays a key role in moderating these effects (Experiment 4). As most if not all brand extension

research has been from the perspective of the firm, we believe our findings offer novel insights into the effects that varying brand extension fit can have on consumers. We conclude with a discussion of the theoretical and practical implications for these findings.

For more information, contact: kelly-goldsmith@kellogg.northwestern.edu

1.6 Individual Papers: Save a Horse, Ride a Cowboy: Persuasion

Room: Mesquite 2

Chair: Paula C. Peter, San Diego State University, USA

Transportation Model of Movie Advertising: The Moderating Role of Type of Elaboration and Consistency

Iñigo Gallo, UCLA, USA*

Sanjay Sood, UCLA, USA

Kathryn Mercurio, UCLA, USA

Do consumers think about experiential goods differently? We suggest they do. Specifically, we find that consumption antecedents of an experiential good (a movie) revolve around narrative transportation, which is a unique process, different from elaboration. We focus on movies because they represent the prototypical experiential good (Sood and Drèze 2006). Additionally, although studios spend ever increasing budgets in marketing their movies there is still a lack of behavioral research on what makes marketing effective. In movie research, the consumer is the great unknown (Wierenga 2006). This paper sheds some light on the consumer evaluation of experiences. We demonstrate that movie marketing material is more effective as consumers are transported to the world the movie portrays. Second, we find that the presence of narrative elements in the ad helps transportation. Finally, we qualify this second finding by showing that – for it to occur – narrative elements must be consistent. Consistency is manipulated by changing the fit between the movie title and the image in the poster. By manipulating consistency we also show that transportation is a unique construct, different from elaboration.

Transportation is a process through which narratives affect beliefs (Green and Brock 2000). Transportation leads to persuasion through reduced negative cognitive responding, the realism of the experience, and strong affective responses. Transportation processing is based on three components: cognitive engagement, emotional engagement, and mental imagery. Transportation has also been examined in consumer advertising. When subjects were asked to imagine themselves using the advertised product, narrative transportation mediated the favorable effect of that mental simulation on ad attitudes (Escalas 2004). Also, transportation has been used to analyze the relationship between ad effectiveness and media context (Wang and Calder 2006). Advertising effectiveness was influenced by the level of transportation produced by the context in which the ad appears. Transportation positively affected advertising that did not intrude on the transportation process, and negatively affected advertising that interrupted the transportation experience. Additionally, transportation resembles flow, or optimal experience (Csikszentmihalyi 1998), which is one of the foundations for arguing that experiences provide happiness and meaning (Schmitt and Rogers 2008). These findings and theoretical support lead us to propose narrative transportation as a key element in experiential marketing.

Traditionally, transportation processing has been studied using paragraph narratives or print advertisements that include both image and text (Escalas 2004, Green and Brock, 2000). We suggest that transportation processing can occur with images alone and that elements in the images can be manipulated to encourage or discourage transportation. In study 1 we find support for the transportation construct in a new context: movie posters using images alone. Transported consumers report a significantly better attitude towards the movie advertised, and a significantly higher intention to

watch it ($B = .78$, $t(217) = 11.22$, $p < 0.001$). Our adapted scale respects the three initial components (cognition, emotion, mental imagery) and adds a fourth one: empathy/identification with the character(s). Scores in the scale explained a significant proportion of variance in the attitude and behavior measures ($R^2 = .46$, $F(1, 217) = 47.93$, $p < 0.001$).

Study 2 proposes and validates a manipulation to trigger and increase transportation and establishes the importance of narrative elements. We indirectly ask subjects to transport by asking them to think about the characters they would meet in the movie, the places they would visit, etc. Also, we test the importance of narrative elements in the poster. We define narrative elements as elements that point towards a story, a narrative. Specifically, we operationalized this by manipulating the presence/absence of characters in the poster. As hypothesized, there was a main positive effect for transportation instructions for the narrative poster, but not for the non-narrative poster ($F(1, 206) = 2.81$, $p < 0.05$).

Finally, we propose and validate that transportation processing is distinct from elaboration. An alternative explanation to the results in studies 1 and 2 could be based on elaboration. Under the transportation manipulation subjects are more highly involved (elaborate more on the movie posters), and as a consequence report more positive attitudes. Cognitive elaboration has been a major field of study in consumer behavior for the last three decades and has been proposed as a central construct in explaining the impact of an ad on learning, attitudes, and behaviors (Petty and Cacioppo 1981; Chaiken 1981; Meyers-Levy 1991; Malaviya, Ksielius, and Sternthal 1996). To rule out this explanation and underscore transportation as a unique process, we introduce the construct of consistency. Consistency is defined as the degree of fit among the elements in the poster: title, image, and character(s) (Schmitt, Tavassoli, and Milard 1993). We find that inconsistency has a positive impact under the elaboration condition, but a negative one under the transportation condition, since subjects are missing elements to transport. This interaction is significant ($F(1, 118) = 6.06$, $p < 0.05$). Subjects in the elaboration condition are asked to highly elaborate on the poster by considering its design and the reasons why the artist has chosen the different elements in the poster.

With this research we have demonstrated that transportation is an important construct for experiential marketing. Transportation is a unique process, different from elaboration. Transported consumers positively evaluate experiential stimuli. We find that for transportation to be a positive experience the ad has to include narrative elements, and those elements have to be consistent.

For more information, contact: inigo.gallo.2013@anderson.ucla.edu

Enhancing Memory and Product Preference During Fast-Forwarded Commercials

Jeffrey Lin, University of Washington, USA*

Ione Fine, University of Washington, USA*

Geoffrey Boynton, University of Washington, USA

Scott Murray, University of Washington, USA

The modern consumer faces a deluge of advertisements, but also has access to a wide range of ‘advert-avoidance’ technologies. This has led to an arms-race between consumer and advertiser. As one example, the past decade has seen a dramatic rise in the consumer use of digital video recorders (DVRs), with a 2011 report estimating that 37% of US households with televisions had access to DVR technology (Steinberg and Hampp 2007). Estimates suggest that approximately 60-90% of DVR-recorded commercials are fast-forwarded or “zipped” (Cronin and Menelly 1992; Yorke and Kitchen 1985). This effective ad avoidance strategy has dramatically changed the TV advertising landscape—a national survey of large advertising agencies revealed that 75% planned to cut back on television

advertising and 70% of advertising agencies believed that DVRs would reduce or destroy the effectiveness of a traditional 30-second spot (Bernoff 2004). Industry analysts currently estimate the impact of DVR-related ad avoidance to be as high as 5.5 billion dollars in annual losses (Kim 2003). Advertisers have responded with multiple attempts to counter DVR-related ad avoidance, including product placement within program content, simultaneous presentation of programming and advertisements, blurring boundaries between programs and commercials, and overlaying static images during fast-forward streaming. These attempts have been unsatisfactory because they have either been met with very strong viewer resistance and/or have had limited and unmeasured effectiveness.

This conflict between advertiser and consumer is because multiple items presented simultaneously almost always compete for attention and memory. Consumers want to attend to the content of their show: advertisers want consumers to attend to and remember their product. However, it has been recently discovered that during brief, behaviorally important, moments in time attention and memory is enhanced across *all* items in a scene – a form of attentionally driven ‘screen-capture’ (Lin et al. 2010; Swallow and Jiang). Under these circumstances, content and advertisements need not compete for attention: this phenomenon provides a way of carrying out effective advertising without any consumer burden. Here, we show how this phenomenon can be used to carry out effective advertising while consumers fast-forward through commercials.

Participants watched one hour of TV and were asked to fast-forward through six sets of commercial pods. During fast-forwarding, participants were told that pressing ‘play’ when they saw a briefly presented (125 ms) target cue at the end of each commercial break would resume their program at the beginning of the TV show. This brief and behaviorally important cue was presented concurrently with the image of a product (UK chocolate bars). As expected, un-cued fast-forwarded advertisements were almost completely ineffective. In contrast, with just four cue exposures over one hour, subjects showed enhanced recognition and product preference for the cued product. Although the same number of commercials was always presented for the cued and the un-cued product, participants reported seeing more commercials for cued than un-cued products. Products shown behind a stop cue enjoyed an increase in brand recognition, were rated as significantly more attractive, were more likely to be recommended to friends, and were physically chosen more often than un-cued products. These advertising effects were far more powerful than primacy and recency effects measured using the same paradigm. This method, while agreeable to the viewer, is also extremely powerful in terms of advertising effectiveness.

While the neurological basis of this ‘screen capture’ is not yet clear, one possibility is that the detection of a behaviorally relevant target and execution of a response may trigger a rapid spread of attention resulting in exposure effects analogous to those observed by Brasel and Gips (Brasel and Gips 2008b; Brasel and Gips 2008a), but on a ‘super-enhanced’ time scale. Consistent with this possibility, recent papers suggest that the detection of a target cue and execution of a response trigger a rapid spread of attention resulting in a ‘screen capture’ or ‘attentional boost’ (Lin et al. 2010; Swallow and Jiang), and attentional selection has in turn been shown to increase the magnitude of mere exposure effects (Obermiller 1985; Yagi et al. 2009). If our results are an example of enhanced mere exposure then the fact that the stop cue and the associated product image are presented very briefly is likely to be an advantage since mere exposure effects tend to be larger for repeated briefly presented stimuli than for a single prolonged presentation (Bornstein and D’Agostino 1992).

However, our results could also be due to more complex psychological phenomena than enhanced mere exposure. For example, according to a classical conditioning model, the association of a conditioned reward stimulus (the stop cue, associated with the beginning of the program) with the simultaneously presented advertisement might predict dramatic increases in product preference. If the results described here are even partly driven by the powerful effects of reward based associative conditioning then the effects of ‘target-related’ advertising on product preference may be much more

extensive than those found for mere exposure. There have been conflicting reports on how stimulus recognition accuracy and exposure effects are correlated (Brooks and Watkins 1989; Newell et al. 2007; Ye and van Raaij 1997); however, in the current experiments, brand attractiveness, perceived frequency and recognition data all suggest a positive correlation—participants recognized the cued products more often than un-cued products and also reported the cued products as being more attractive.

In summary, we find that under conditions where a behaviorally important target cue is presented briefly, there is no longer competition for attention across the visual scene, and advertisements need not distract consumers from their chosen focus of attention to be effective. We have shown one practical example; where a brief cue was used enhance the advertising influence of fast-forwarded commercials. However this phenomenon is likely to be applicable to a wide range of media content, such as product positioning during video-games, interactive TV and fast-forwarding through streaming video content.

For more information, contact: jytlin@u.washington.edu

Not So Personal: The Impact of Social Identity Ad Appeal as a Function of Activation in Advertising

Dikla Perez, Haifa University, Israel*

Yael Steinhart, Haifa University, Israel

Marketers exert great effort in finding an appeal that will not only attract the consumers' attention but also will encourage them to buy the advertised product. This research examines types of ad appeals that may fulfill this desire. Specifically, we explore the differential influence of personalized ad appeals as a function of the presence or absence of an activation technique; namely, an engagement in motor activity required to reveal the advertising message.

The research proposes that a social identity ad appeal will attract the consumers' attention more than a general ad appeal or an appeal by name, especially in the presence of the activation. Thus, it intends to show that the combination of activation technique and social identity ad appeal boosts the consumers' engagement and interest in the ad, and consequently, the ad and product evaluations.

Previous research has demonstrated the favorable effect of activation technique on ad and product evaluations (Goldenberg & Mazursky, 2008; Steinhart, *Forthcoming*). However, activation technique was explored in the context of general ad appeal where the message is identical to all consumers. This research further considers more personalized approach levels.

Personalized ad appeal in advertising is based on approaching consumers while relying on their individual profiles. This can range from mentioning a consumer's name (appeal by name) to referring to her culture or beliefs (social identity ad appeal). Specifically, appeal by name is based on approaching the end consumer by using private and sometimes confidential details. This approach may trigger negative feelings due to privacy concerns (Yu & Code, 2009), and eventually decrease ad and product evaluations.

Social identity ad appeal is based on social identification theory (Ashforth & Mael, 1989), and uses social characteristics of the consumer, such as a football team fan club membership. This approach considers personal details, which are common to a group of people, and therefore may be perceived as less invasive compared to appeal by name. Presumably, this will generate higher ad and product evaluation. Social identity ad appeal is also expected to enhance these evaluations compared to a non personalized ad appeal (i.e. general ad appeal).

Prior research has indicated that social identity motivates people to take action (Hogg & Turner, 1985), especially when these actions have a high compatibility with consumers' social identification. There is also evidence that activation technique enhances favorable ad and product evaluations when it is compatible with the content of the message conveyed in the ad (Steinhart, *Forthcoming*). Integration of these two streams of research, suggests that incorporating the activation technique (where the motor activity fits the conveyed message) with social identity ad appeal (where the social identification fits the consumer's group affiliation), will increase ad and product evaluations.

We further assume that the combination of activation technique and social identity ad appeal enhances the viewer's involvement with the conveyed message, and consequently elevates evaluations. Therefore, we predict that the increased interest in the ad would mediate the effect on ad and product evaluations.

In sum, we hypothesize:

H1: Social identity ad appeal will increase favorable evaluations of both the ad and the advertised product more than appeal by name or general ad appeal.

H2: Social identity ad appeal will lead to more favorable ad and product evaluations in the presence of the activation, compared to:

- H2a: Social identity ad appeal in the absence of the activation.
- H2b: Appeal by name, with or without activation.
- H2c: General ad appeal, with or without activation.

H3: The above effects will be mediated by the degree of interest.

Our hypotheses were tested in two studies.

The first study used online ads. These ads were carefully selected based on a pre-test. Specifically, in the first study participants were exposed to one of six ads: *activation technique* (presence or absence) and *types of ad appeals* (by name, social identity, and general). The social identity ad appeal addressed the fun club of the participants' preferred football team. The ads differed in their approach banner but were identical in their landing page. ANOVA of ad evaluation as a function of the presence or absence of activation technique and type of ad appeals confirmed H1 and H2. As expected by H1, there was a significant main effect of ad appeal type, $F_{(2,156)} = 5.27, p < 0.01$. Participants under the social identity ad appeal condition reported on higher ad evaluation ($M = 3.18$) than those under the general ad appeal condition ($M = 2.58, t_{(108)} = 2.10, p < 0.05$) or than those the by name condition ($M = 2.37, t_{(101)} = 2.89, p < 0.01$). In line with H2, we found a significant two-way interaction ($F_{(2,156)} = 3.02, p = 0.051$). Participants who were exposed to social identity ad appeal, reported higher ad evaluation in the presence of activation ($M = 3.68$) than in the absence of activation ($M = 2.79, t_{(49)} = 2.08, p < 0.05$). These participants also rated the ad higher than those (a) under the ad appeal by name conditions, either in the presence of activation ($M = 2.19, t_{(46)} = 3.54, p < 0.001$) or in absence of activation ($M = 2.54, t_{(46)} = 2.59, p < 0.05$), and (b) under the general ad appeal conditions, either in the presence of activation ($M = 2.45, t_{(49)} = 2.84, p < 0.01$) or in absence of activation ($M = 2.70, t_{(50)} = 2.21, p < 0.05$). Similar results were found regarding the purchase intention. Finally, as expected by H3, the extent of interest toward the ad was found to mediate these effects (Sobel test = 2.07, $p < .05$).

The second study was based on print ads. It examined participants' choices as a function of ad appeals (general or social identity) and activation technique conditions. Participants were exposed to one of four print ads, answered a short questionnaire, and as a token for their participation were offered to take one of two products (the advertised one or a different brand). As hypothesized, participants that had been exposed to a social identity ad appeal were more likely to choose the advertised product in the presence of activation technique ($N = 6(10); 60%$) than in the absence of activation

technique ($N = 4$ (10); 40%) and more than those exposed to the general ad appeal, in the presence of activation ($N = 4$ (16); 25.5%, $\chi^2(1, 26) = 3.19$, m.s).

To conclude, the current research revealed the favorable effect of personalized ad appeal that addresses the social identity of the consumer, especially in the presence of activation technique; not only on ad and product evaluations, but also on consumer choices.

For more information, contact: diklaperez@gmail.com

When is Commitment not Enough? Exploring Limitations of Consumers' Resistance to Negative Brand Information

Rebecca K. Trump, Loyola University Maryland, USA*

Consumer research indicates that how consumers respond to negative information about a brand is dependent upon their level of commitment, or connection, to that brand (Ahluwalia, Burnkrant, & Unnava, 2000; Ahluwalia, Unnava, & Burnkrant, 2001; Cheng, White, & Chaplin, Forthcoming; Swaminathan, Page, & Gurhan-Canli, 2007). In particular, Ahluwalia et al. (2000) found that highly committed consumers resist negative information about the brand, allowing their attitudes toward the brand to remain positive, compared to non-committed consumers, whose attitudes toward the brand were significantly lower when presented with negative information. This research seeks to identify boundary conditions to this effect. In particular, in two studies I examine two potential moderators, the first being the self-relevance of the negative information, with the expectation that even a consumer connected to the brand may respond negatively to a transgression when it is self-relevant.

In both experiments, Nike was chosen as the focal brand, based on pretest information, and participants' self-brand connections (SBC; Escalas, 2004) were measured before presenting the negative information. The negative information was presented to participants in the form of a press release (participants in both studies in all conditions found the press release to be believable, as indicated by means on an item assessing this being significantly greater than the scale midpoint of four, $p < .05$). Brand evaluations were then assessed, using an adaptation of Holbrook and Batra's (1987) 7-point semantic differential scale. In addition, both experiments included a control condition, where participants were presented with factual information about the brand; this served as a baseline for brand evaluations in the absence of negative information.

In study 1, with 167 undergraduate students, self-relevance (high/low) of the negative information, which was in the ethical domain, was manipulated. A regression on brand evaluations, with self-relevance, SBC, and negative moral information/control condition and all two- and three-way interactions as the independent variables, did not reveal the expected three-way interaction ($p > .20$), but did reveal a significant interaction between self-relevance and information condition ($p < .05$). As expected, those for whom the negative information was self-relevant responded more negatively, compared to both the control condition ($p < .05$) and those for whom the negative information was not self-relevant ($p < .05$), no matter the level of SBC. However, surprisingly, even those high on SBC for whom the information was not self-relevant responded negatively to the information (as indicated by a spotlight analysis at one standard deviation above the mean of SBC), compared to the control condition ($p < .05$), though their evaluations were more favorable than the evaluations of those high on SBC for whom the information was self-relevant ($p < .05$).

This contrasts the finding that committed consumers resist negative brand information, in general. In particular, this study revealed that consumers respond more negatively when the brand transgression is self-relevant, but even connected consumers for whom the information was not self-relevant demonstrated decreased brand evaluations.

Perhaps that is due to the information being ethical in nature, as opposed to in prior studies where the negative information tends to be product related. This would be consistent with Folkes and Kamins' (1999) finding that consumers find ethical information more diagnostic than product attribute information. To follow-up on this possibility, the second experiment examines committed consumers' reactions to negative information in the ethical versus product domains.

In study 2, with 231 Amazon MTurk participants (mturk.com), whether the negative information was ethical or product related was manipulated. A regression on brand evaluations, with SBC, negative moral information/negative product information/control condition, and their interaction as the independent variables, did not reveal a significant two-way interaction ($p > .20$), but did reveal significant main effects of both information condition and SBC (both $p < .05$). No matter the level of SBC, consumers evaluated Nike less favorably in the negative moral information condition than in the negative product information condition ($p < .05$), which was lower than in the control condition ($p < .05$). This reveals that consumers' brand evaluations are unfavorably affected more so by negative moral information than product information. But, once again, even connected consumers responded negatively to the product related negative information, which is inconsistent with prior research.

This research currently leaves the looming question of when, precisely, committed, or connected, consumers will respond unfavorably to negative brand information. Here, I find that consumers, including those who are connected to the brand, evaluate the brand less favorably in the face of negative information, compared to a control condition. This is inconsistent with prior research, which finds that committed, and connected, consumers resist negative brand information. However, this line of research tends to examine rather subtle, or minor, product failures: The negative product information in study 2 may have been perceived as more adverse than the information presented in prior investigations. Future research will examine whether consumers' responses to negative product information is impacted by the degree to which the product information is unfavorable, with perhaps them overlooking only minor product disappointments.

Two moderators of consumers' reactions to negative brand information were identified: the self-relevance of the information and the context of the information. In particular, consumers respond more unfavorably to negative brand information when that information is self-relevant and responses are more negative when the information is ethical in nature, compared to product related. Thus, an individual difference and a contextual factor have been identified as impacting consumers' reactions to negative brand information. This suggests that companies should not expect a one size fits all reaction to negative information about their brands and, instead, consider diverse reactions of their various market segments as well as varying reactions depending on the nature of the negative information.

For more information, contact: rktrump@loyola.edu

1.7 Conversations: Sensations

Room: Mesquite 1

Aradhna Krishna, University of Michigan, USA

Tom Meyvis, New York University, USA

Maureen Morrin, Rutgers University, USA

2.1 Symposium: Balancing Multiple Goals in Social Consumption

Room: Four Seasons Ballroom 1

Chair: Linyun Yang, University of North Carolina Charlotte, USA

My Treat! Choosing What to Consume when Someone Else is Paying

Christian Schmid, University of Alberta, Canada

Jennifer Argo, University of Alberta, Canada

Gerald Haubl, University of Alberta, Canada*

Prior work on gift-giving (e.g., Otnes et al. 1993; Sherry 1983; Wooten 2000) has focused on gift exchange from the perspective of the donor, and has not considered the perspective of the gift *recipient*. The present research examines “gift self-selection” – i.e., how people choose what to consume when someone else has offered to pay. Consumer gift self-selection frequently occurs when another person extends an invitation in a joint consumption setting (e.g., someone offers to pay for the consumer’s meal). A key aspect of this type of setting is that both the recipient and the donor are physically present during gift selection. As a result, the recipient’s consumption choice might be influenced by multiple, potentially competing goals such as (1) maximizing pleasure from consumption by selecting a more expensive option and (2) conveying a favorable self-presentation to the donor by choosing a less expensive option.

We argue that the recipient’s self-construal (Markus and Kitayama 1991) is a key determinant for which of the two conflicting goals is more strongly activated and, thus, drives the recipient’s gift self-selection. For *independents*, we predict that gift choice is driven primarily by the goal to maximize the pleasure, resulting in an inclination to select a more expensive option. By contrast, *interdependents* are predicted to choose a less expensive option to satisfy the goal of favorable self-presentation. We present evidence from three studies designed to test these predictions.

Study 1 was conducted in a restaurant in a large North American city. Given that prior research has demonstrated that North Americans tend to have an independent self-construal (Fiske et al. 1998), our prediction was that, in this context, consumers would be more inclined to choose an expensive item when someone else offers to pay for their meal than when they pay for it themselves. Ninety restaurant patrons participated in a one-factor (invitation: yes vs.no) between-subjects study. After restaurant patrons who were seated in same-gender pairs placed their order, their server asked if they would be interested in participating in a short survey. If both patrons in a party agreed, each indicated the menu items they had ordered and whether they were paying for their own meal or were being invited by their companion (if they they were invited, they were asked whether they knew this before their order was taken). The dependent variable was the price of the meal that a participant chose. Results revealed that patrons selected more expensive meals when they were invited than when they paid for their own meal ($t(47)=3.39, p<.01$).

In Study 2, using a scenario-based method, we tested whether consumers with an independent (interdependent) self-construal choose a more (less) expensive item when someone else offers to pay, as compared to when they pay for their own meal. One hundred consumers participated in a 2 (invitation: yes vs. no) x 2 (self-construal) between-subjects design. After providing the name of a friend, participants read the description of a situation in which they go to a restaurant with this friend. This description suggested that, before looking at the menu, “__announces that s/he will take care of the bill and that you are invited tonight” or “you agree that each of you will pay for your own dinner tonight.” Participants then selected their meal from a menu. The dependent variable was the price of the chosen meal. Participants also completed Singelis’ (1994) Self-Construal Scale. Results revealed a significant interaction between invitation and self-construal ($t(96)=2.30, \beta=0.45, p<.05$); consumers with an independent (interdependent) self-construal chose more (less) expensive items when their friend offered to pay than when they paid themselves

(independent: $t(96)=1.87$, $\beta=0.83$, $p<.1$; interdependent: $t(96)=2.27$, $\beta=-0.98$, $p<.05$).

Study 3 examined the mechanism underlying these effects – i.e., whether gift self-selection is driven by the goal to maximize pleasure from consumption for independents and by the goal to present oneself favorably for interdependents. To do so, we used an experimental paradigm in which participants were provided with an alternative means of satisfying the specific goal hypothesized to be activated, and driving consumption choice, when someone else offers to pay. We predicted that satisfying a pleasure-seeking (self-presentational) goal prior to making their choice will render independents (interdependents) less likely to choose the more (less) expensive option. One hundred and seven undergraduates participated in a 2 (goal satiation: yes vs. no) x 2 (self-construal) between-subjects design. In all conditions, participants were invited. The key dependent variable was whether participants chose a more expensive pen from two available options.

Participants first completed a survey that contained a self-construal manipulation used in prior research (e.g., Mandel 2003; Trafimow et al. 1991). To manipulate goal satiation, participants were informed that the next study examined the effects of eating chocolate on solving logical problems. As different goals were postulated for these two groups, the goal-satiation manipulation was specific to the activated self-construal. Independents were informed that they were assigned to a control group and would not eat any chocolate. Independents in the no-satiation condition were then told that this meant they could not eat any chocolate. By contrast, independents in the satiation condition were given an opportunity to satisfy this goal as they were told that, because more participants were needed for the “chocolate eating” condition, they could eat as much chocolate as they liked. As this should have satisfied their goal of maximizing pleasure, these participants were expected to select a less expensive option (than independents in the no-satiation condition). Interdependents were informed that they had been assigned to the experimental group that could eat as much chocolate as they desired. Interdependents in the no-satiation condition were then told to consume as much chocolate as they liked, whereas those in the satiation condition were given an opportunity to satisfy their focal goal. They were told that additional participants were needed for the control condition, and asked whether they would be willing to proceed without eating any chocolate. If the activation of a self-presentation goal drives gift self-selection for interdependents, satisfying this goal through other means should reduce their tendency to select the less expensive option. After (not) eating the chocolate and completing some logical problems, all participants were instructed to buy a pen to use in the next study (the price of the pen would be deducted from their \$10 payment). All participants chose between two pens that differed in price (\$1.00 vs. \$0.50). Before making the choice, the experimenter told each participant not to worry about the money – he would pay for the pen with his own money.

Results revealed a significant interaction effect between goal satiation and self-construal ($\beta=-2.64$, $z(103)=-3.186$, $p<.01$). Independents were less likely to choose the more expensive option after the opportunity to satisfy a pleasure-seeking goal (40.7 percent) than when such an opportunity did not exist (76.9 percent; $\beta=1.58$, $z(103)=2.60$, $p<.01$). By contrast, interdependents were more likely to choose the more expensive option after the opportunity to satisfy a self-presentational goal (66.7 percent) than in the absence of such an opportunity (40.7 percent; $\beta=1.07$, $z(103)=1.89$, $p<.05$).

These findings demonstrate that consumer gift self-selection is driven by the interplay between two conflicting goals – pleasure-seeking or favorable self-presentation – and that, in line with our theoretical framework, the differential activation of these goals is governed by consumers’ self-construal.

For more information, contact: gerald.haubl@ualberta.ca

You've Got a (Bad) Friend in Me: Self-Construal and Strategic Selfishness

Sarah Moore, University of Alberta, Canada*

Eugenia Wu, Cornell University, USA

Gavan Fitzsimons, Duke University, USA

What does it mean to “choose like a good friend”? As social beings, we spend our lives in the company of others—a fact that frequently compels us to choose collectively on behalf of ourselves and those others. Do we make reservations for 6 at a bistro or a steakhouse? Watch a kung-fu flick or a comedy? Go bowling or grab a drink? Making choices can be tough enough when we're choosing for ourselves (Schwartz 2004), but the difficulties are compounded when we must consider the preferences of others in addition to our own. In this research, we examine how individuals balance self and other preferences when choosing collectively.

The importance of satisfying relationships to our physical and psychological well-being (Eisenberger, Lieberman, and Williams 2003) suggests that it might be wise to balance others' preferences with our own in making collective decisions. In trying to ensure that everybody is happy, we stand a better chance of ensuring group harmony and strengthening our social relationships. Extant research suggests, however, that not everyone is naturally disposed to make more other-oriented choices. Specifically, those with independent self-construals have been shown to emphasize self-preferences in decision-making, while those with interdependent self-construals naturally balance self and other preferences (Cross, Bacon, and Morris 2000). For interdependents, then, “choosing like a good friend” comes easily. Thus, we suggest that in choosing for self and others, interdependents should make “friend-friendly” choices regardless of the choice situation. For independents, however, their emphasis on self preferences can be inconsistent with maintaining strong relationships and “choosing like a good friend.” We argue that rather than dependably forgoing their relationships or their personal preferences, independents skillfully balance self and other in social consumption situations: they generally behave selfishly—but only when they can do so without the risk of social censure, in contexts where their selfishness can be hidden from the group. When the social situation suggests that selfish choices cannot be made without discovery, however, we suggest that independents strategically attempt to disguise their self-centered natures and make more “friend-friendly” choices.

Unlike prior research, then, which shows that interdependents are more situationally sensitive than independents (e.g., Lewis, Goto and Kong 2008; Haberstroh, Oyserman, Schwarz, Kühnen and Ji 2002), we suggest that in social consumption situations, independents behave strategically in context-sensitive ways, while interdependents are contextually insensitive. We build on this literature to examine how individuals balance their fundamental need for fulfilling relationships with their personal self-interests, and examine how individuals use the social context around them to manage their interpersonal relationships. Specifically, we suggest that interdependents reliably make choices that take the preferences of others into account along with their own—regardless of the social and choice context around them. On the other hand, we expect independents to use situational cues to strategically determine how to choose in order to preserve their social relationships while still satisfying their own preferences.

We examine the influence of self-construal on social consumption using a common collective decision: choice of wine for the table at a restaurant. Across four studies, participants were told that they were out to dinner with friends and that they had \$110 to spend on one bottle of red and one bottle of white wine for the evening. Individuals then chose a bottle of red and white wine off a real wine list. We measured wine preferences (how often participants drank red versus white wine) and self-construal (Singelis 1994) as independent variables, and measured the prices and perceived quality of the red and white wines chosen as dependent variables. We expect interdependents to make balanced choices and to choose equally expensive bottles of red and white wine, regardless of their own wine preferences. Independents, on the other hand, should selfishly choose better (more expensive) wines of the type they prefer—unless this choice puts them at risk

of social censure.

In study 1, we compared choosing for others in a dyadic versus a group setting. We expected that interdependents would display context insensitivity and make balanced choices regardless of the social setting, but that independents would display context sensitivity and make balanced choices only in the dyadic setting, where selfishness is harder to conceal and the risk of social censure due to selfishness is greater. As expected, personal wine preference did not influence interdependents' choices in the dyad or group conditions, nor did it influence independents' choices in the dyad condition. However, indicating their context sensitivity, independents in the group condition behaved selfishly and chose more expensive red (white) wine as their preference for red (white) wine increased.

In studies 2a and 2b, we replicated and extended our group condition findings from study 1. In study 2a, we found that independents continued to choose selfishly in a group situation and that they were aware of doing so: independents rated the chosen wine bottle of their own preference as being of higher quality and more enjoyable than the other bottle, while interdependents showed no such effects. In study 2b, we replicated this finding by priming instead of measuring self-construal, and by using an actual choice measure of wine preference.

In study 3, we explored how group characteristics affect independents' choices. Specifically, we manipulated whether the group was comprised of wine experts or novices. Given that wine novices have a lower level of wine knowledge, we expected that independents would choose especially selfishly when choosing for novices because the likelihood of having their selfishness detected is low. In contrast, we expected that independents would choose less obviously selfishly when choosing for a group of wine experts. All participants were primed to be independent before choosing wine. As expected, independents chose more expensive bottles of the wine they preferred when choosing for novices, and rated this wine as being of higher quality and more enjoyable. When choosing for experts, however, independents chose equally priced bottles of red and white wine regardless of their individual preferences, though they continued to rate the bottle they preferred as being of higher quality and more enjoyable. Thus, independents again displayed context sensitivity and made less obviously selfish choices when choosing on behalf of self and experts.

Taken together, this work suggests that independents are "strategically selfish" in social consumption situations: they generally behave selfishly, but take pains to hide their selfishness when there is a risk of exposure. Thus, in contrast to prior work, we show that independents, rather than interdependents, are context sensitive in social consumption situations where they must balance their own preferences with others'. Importantly, these results are not driven by biased assumptions about others' preferences (Davis, Hoch and Ragsdale, 1986)—independents who liked red wine did not choose more expensive red wines because they assumed everyone at the table would be drinking red wine, just like them. We measured and manipulated individuals' expectations about group preferences in our studies to rule out this alternative explanation. In short, then, when selecting someone to make a decision for your group, choose interdependent individuals—or you might end up drinking a bargain blend while they enjoy an award winning vintage.

For more information, contact: sarah.moore@ualberta.ca

Strategic Self-Presentation in Joint Consumption: Self-Monitoring and the Use of Stereotypes as Social Tools

Linyun Yang, University of North Carolina Charlotte, USA*

Tanya Chartrand, Duke University, USA

Gavan Fitzsimons, Duke University, USA

Consumers often engage in shared consumption in order to become acquainted with and learn more about each other.

For example, new friends may go see a movie together to socialize, or a salesperson may take a new client to dinner to learn about the client's needs. Given the importance of making a good impression in the early stages of a relationship, the products consumers choose for joint consumption are quite important and have the potential to make or break a budding relationship (Raghunathan and Corfman 2006; Ramanathan and McGill 2007). When consumers are just beginning to get to know each other, they have very little information regarding their consumption partner's preferences and expectations for the interaction. How might they go about making their product choices? We propose that consumers use stereotypes as a resource to help inform their choices. Because stereotypes are socially shared and provide information about social groups based on easily identified qualities (e.g., race, gender), they may prove useful in inferring the preferences and anticipating the behavior of one's consumption partner (Kunda and Thagard 1996).

However, consumers understand that simply choosing something liked by the consumption partner may not be enough to ensure a positive interpersonal experience because chosen products may communicate a number of things about themselves to others, especially if chosen products are consistent with stereotypes. In order to ensure that selected items will be favorably received, we find that consumers also consider the type of relationship they wish to pursue during the interaction and also the expectations their consumption partner might have. We find that some consumers are more adept at considering these factors than others. High self-monitors, compared to low self-monitors, have richer, more easily accessible knowledge structures regarding other people and the appropriateness of certain behaviors in specific social situations (Snyder and Cantor 1980). In turn, they use this information as a guide for monitoring their own self-presentations. Thus, high self-monitors relative to low-self monitors should be more willing and able to select products that convey impressions that facilitate positive consumption experiences.

In studies 1 and 2, we examine how male consumers' product choices may be constrained by the need to uphold the role of a masculine man when trying to pursue a romantic relationship with a female consumption partner and how these constraints shape the impressions male consumers wish to present. In study 1, we examine the social implications of expressing gender role consistent or inconsistent product preferences for males and find that males are penalized romantically (but not platonically) if they express gender role violating (i.e., feminine) product preferences.

In study 2, we explore the implications of these findings for choosing products for shared consumption. We examine how males choose products when consuming with a female, depending on whether these males are high or low self-monitors and also whether they are motivated to pursue a romantic relationship. Both low and high self-monitors relied on gender stereotypes and assumed their consumption partner would enjoy reviewing feminine TV shows and magazines (e.g., *Sex and City* and *Elle Décor*). However, they ultimately chose different products to share with their female consumption partner. When not motivated to foster a romantic relationship, high self-monitors were more likely than low self-monitors to fully accommodate their female consumption partner and select stereotypically feminine items. However, when motivated to pursue a romantic relationship, it was low self-monitors that were more likely to select feminine items while high self-monitors were more likely to select gender neutral items (e.g., *Weeds* and *Condé Nast Traveler*). This suggests that only high self-monitors realized that selecting feminine items could compromise their romantic attractiveness.

In study 3, we examine another important determinant of impression management efforts: the audience's expectations. More specifically, we study the types of impressions male consumers wish to present when selecting products to consume with a feminist consumption partner. In this study, we find that male participants used the stereotype associated with feminists to infer that she may expect him to be sexist; thus, they adjusted their joint consumption choices in an attempt to compensate for these negative expectations.

Both low and high self-monitors recognized that selecting stereotypically feminine items would likely be construed as a

sign of prejudice in this study. However, only high self-monitors recognized that selecting a gender neutral item may also hold the same risks, because the feminist may interpret the selection as a compromise between the male's masculine preferences and her presumably feminine preferences. Thus, high self-monitors were more likely than low self-monitors to select masculine items in order to avoid indicating that they were applying gender stereotypes to their consumption partner. On the other hand, low self-monitors were more likely than high self-monitors to select gender neutral items because they were less likely to realize that selecting gender neutral items could be negatively received by a feminist consumption partner.

Taken together, these studies suggest that when choosing products to share with people they are unfamiliar with, consumers rely on stereotypes to help infer the preferences and anticipate the responses of their consumption partner. However, consumers differ in their willingness and ability to select products that will be favorably received. In contrast to low self-monitors, high self-monitors recognize that simply choosing something liked by the consumption partner may not be enough ensure a positive interpersonal experience, because chosen products communicate a number of things about themselves to others, especially if these products are consistent with stereotypes.

For more information, contact: l.yang@uncc.edu

2.2 Individual Papers: Look at Me, I'm Sandra Dee: Visual Psychology

Room: Four Seasons Ballroom 2

Chair: Yael Steinhart, University of Haifa, Israel

Looking Down is the Way Up: The Influence of Looking Down versus Up on the Scope of the Evoked Processing Style

Anneleen Van Kerckhove, Ghent University, Belgium*

Maggie Geuens, Ghent University, Belgium

Iris Vermeir, Ghent University, Belgium

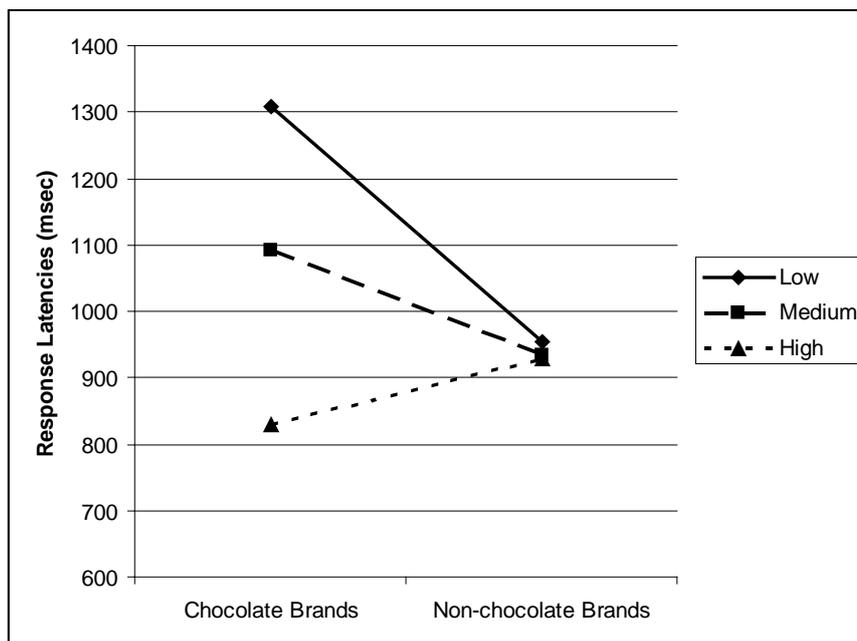
Assume that one store displays the brands of your choice set on a high shelf and another store displays the same brands on a low shelf. Would this difference in shelf height affect which brand you ultimately choose from one store to the next? Or, would your purchases from an on-line retail store be influenced by the height at which your computer monitor is placed? We argue that this is indeed the case.

Because nearby objects are generally situated in the lower visual field while distant objects are generally situated in the upper visual field (Previc, 1990), people are accustomed to looking down (up) to process nearby (distant) objects. The fact that near and distant space are biased toward respectively the lower and upper visual field is evidenced in numerous things. For instance, when standing in an open field, you need to look down to see a dandelion growing near your feet, whereas desecrating a tree in the distance involves looking up. Consequently, due to their frequent co-occurrence, looking up (down) and distance (proximity) may be strongly associated. In addition, according to CLT, psychologically distant stimuli are represented by abstract construals because they are processed with a broader conceptual scope, whereas proximate stimuli are represented by concrete construals because they are processed with a narrower conceptual scope (Förster, 2009; Trope & Liberman, 2010).

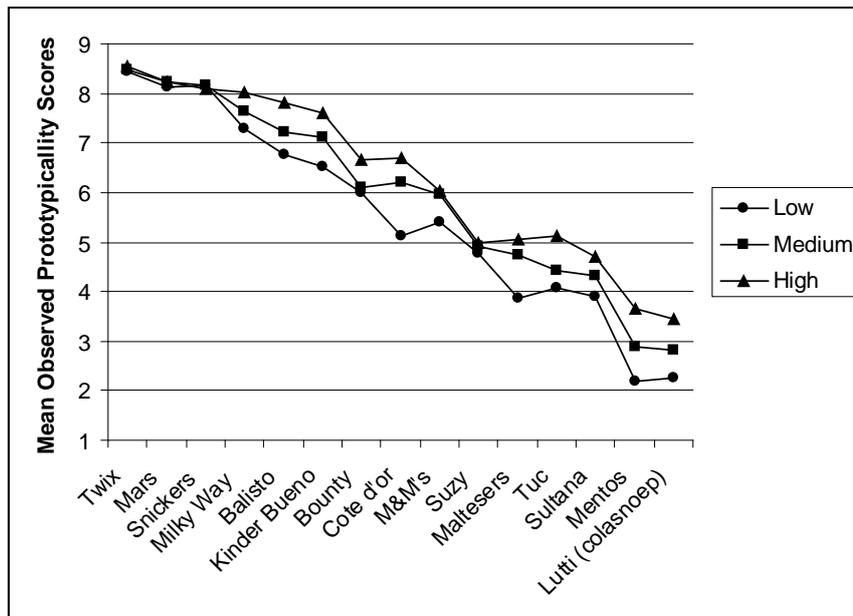
According to embodied cognition theory (Barsalou, 1999) bodily movements like looking down and looking up may evoke those processing styles that normally accompany them. Hence, merely looking up or down may have come to serve as an associative prime, eliciting attentional broadening or narrowing. This is investigated by registering the

influence of looking up versus down on a diverse set of dependent variables, such as the accessibility of competing brands, inclusiveness and breadth of categorization, and preference-decision consistency, as they are likely to be influenced by the scope of conceptual attention.

A first study investigates if looking down (up) while processing a target brand inhibits (increases) the accessibility of other brands in the same product category. Inasmuch as looking down (up) to process information on a target brand is likely to evoke a narrow (broad) processing style, we expect that this may result in a decreased (increased) accessibility of other brands in the same product category (Kardes, Cronley, & Kim, 2006). Study 1 demonstrates that processing information on a target brand (Lindt Swiss Chocolate) by watching a slideshow projected on a low, middle, or high position indeed results in slower (faster) response latencies toward competing chocolate brands in a subsequently administered product category-identification task when presentation height was low (high) versus medium.



Study 2 shows that presentation height also affects the categorization process. Broadening (narrowing) the scope of conceptual attention increases (decreases) the probability that brands are seen as prototypical exemplars of a category (Lajos, Katona, Chattopadhyay, & Sarvary, 2009). Consequently, the main aim of study 2 is to show that looking down or up has an influence on the likelihood that atypical items will be designated as members of a product category. Ninety-three undergraduates rated the prototypicality of candy brands for the product category ‘candy bars’ on a 9-point Likert scale when the brands were projected either in a low, medium or high position. Analyzing the prototypicality ratings indicates that no differences in the prototypicality scores can be observed for those brands that are seen as highly prototypical; the scores significantly differ across conditions for less prototypical brands though. For less prototypical brands goes that looking up (down) leads to significantly higher (lower) scores than looking ahead.



Study 3 investigates whether the outcome of the categorization process differs according to the presentation height of the to-be-categorized items in the upper or lower visual field. Specifically, categorization is expected to be narrower, that is brands are expected to be assigned to more product categories when brands are positioned in the lower rather than upper visual field. Overall, 107 undergraduates were instructed to categorize 20 common retail items. Presentation height of the items varied as the height of the desk on which the computer monitor was placed was either lowered or heightened. When the placement of the monitor was high the mean number of categories to which the items were assigned was significantly lower compared to when monitor placement was low.

Finally, also brand choices are likely to be influenced by attentional focusing. Greater preference-behavior consistency is likely when attention is narrow-focused during choice (Kardes, Cronley & Kim, 2006). Accordingly, greater preference-behavior consistency should be observed when brands are placed in a lower rather than higher position. Five well-known confectionery brands were rank ordered by 115 participants according to their preferences. After a filler task, participants completed a choice task. All confectionery treats were either placed on a high or low shelf and participants were instructed to choose a brand from that shelf. Preference-behavior correspondence was indeed significantly higher when the confectionery treats were presented on a low rather than a high shelf.

Taken together, the reported studies provide substantial evidence that consumer behavior can differ markedly depending on whether looking up- or downward. Our findings consistently indicate that looking down narrows, and looking up broadens conceptual processing. By focusing on the placement of products either in a low or a high vertical position, rather than varying the relative vertical placement of objects, we found that lower positions can be advantageous as well. Brand choices are more in line with brand preferences when the brands are presented in low rather than high positions. Clearly, this finding is of considerable practical importance.

The reported findings may also be important in internet commerce settings as they suggest that the placement height of a computer monitor affects consumers' conceptual scope of attention. In addition, we suggest differences in the effectiveness of in-store ads attached to the store ceiling, versus floorboards, attached to the store floor, occur. Building on the current findings, floor-level advertising might be more effective as the activation of the advertised brand may lead to the inhibition of competing brands.

For more information, contact: a.vankerckhove@ieseg.fr

Moving Eyes Move Minds

En Li, Central Queensland University, Australia

Donnel A. Briley, University of Sydney, Australia*

Over the past decades psychology and consumer researchers have been fascinated by the influence of the mind on the body (Fazio, Powell, and Williams 1989). For example, the goals consumers have in mind can determine patterns of eye movements (Pieters and Wedel 2007). The present research, however, breaks this traditional perspective by looking at the influence of the body on the mind. Specifically, we posit that eye movements, despite being a subtle bodily process, can play a critical role in shaping consumer attitudes toward moving stimuli. That is, moving eyes move minds.

Consumers frequently encounter alphanumeric stimuli moving horizontally across their fields of vision, such as brand names scrolling on website banners, or brand logos advertised on passing buses. This type of motion represents a common form of visual stimulation for consumers. The present research examines whether consumers' habitual reading direction affects their evaluations of such stimuli. We hypothesize and demonstrate a "reading direction effect," whereby consumers' evaluations of an alphanumeric stimulus are more positive when its movement direction coincides rather than conflicts with their habitual reading direction (study 1). Importantly, we show that this directional effect is driven by motor fluency rather than conceptual fluency (study 2), its processes involve activation of reading knowledge (i.e., the procedural knowledge used to perform reading activities; study 3), and its susceptibility to a concurrent unrelated motor task depends on if misattribution of fluency feelings occurs (study 4).

Study 1: The Reading Direction Effect

Two modes of eye movement underlie this proposed effect: a habitual and a situational mode. On the one hand, as the dominant eye movements in processing alphanumeric characters are made in the habitual reading direction (Rayner 1998), eye movements in this habitual direction could act more fluently than in other directions. On the other hand, when an alphanumeric stimulus moves horizontally across a consumer's field of vision, it evokes situational eye movements of identical direction (Palmer 1999). If the direction of evoked eye movements coincides (vs. conflicts) with the viewer's habitual reading direction, she might experience a sense of "feeling right" due to heightened motor fluency. This process might yield enhanced evaluations of the stimulus when the viewer attributes the fluency experience to the quality of the stimulus itself (Bornstein and D'Agostino 1994).

In study 1, it is found that left-to-right readers' attitudes toward a moving brand name are more favorable if the brand moves from left-to-right rather than from right-to-left. Furthermore, evidence is found to support the prediction that processing fluency mediates this reading direction effect.

Study 2: The Influence of Movement Speed

The effect in study 1 could arise due to an alternative mechanism, conceptual fluency, rather than motor fluency. It is theorized that stimulus movement speed provides a useful criterion for teasing apart conceptual and motor fluency effects. That is, if conceptual fluency is the only mechanism driving the reading direction effect, a horizontally moving stimulus will always be favored when its movement direction matches the viewer's habitual reading direction, irrespective of its moving speed. However, if the reading direction effect disappears or even becomes reversed when stimuli move faster than the threshold speed (i.e., three to four degrees per second; stimuli exceeding this speed evoke

dramatic motor process variation; Leigh and Zee 1999; Rayner 1998), then motor fluency should be an indispensable driving force behind the reading direction effect.

In study 2, the preferences for direction matching only emerged when the stimulus moved at a normal speed. Exposure to a fast moving stimulus, nonetheless, reversed this directional effect. These findings are consistent with the notion that motor, instead of conceptual fluency, is the indispensable driving force of the reading direction effect. These results also rule out an alternative explanation whereby the brand's starting or ending location in one's vision field influences evaluations.

Study 3: The Influence of Priming Task

When people encounter and respond to a moving alphanumeric stimulus, certain knowledge representations stored in memory will be activated and used as they formulate responses to this event. The tendency to be more comfortable engaging in eye movements following rather than opposing habitual reading direction, which derives from such representations, might be chronically accessible and context independent (Higgins, King, and Mavin 1982), or "always online," as a result of such tendency being innate or becoming very well learned via repeated applications across different contexts.

Another possibility is that the context in which a moving stimulus is encountered determines whether the reading direction tendency is accessed. It could be that the knowledge that drives this tendency is not "always online," but becomes activated when a context associated with reading is encountered. That is, the reading direction tendency may only arise when the viewer is in contexts that facilitate reading, but disappear when reading knowledge is less readily available.

Study 3 pitted "always online" against "context sensitive" model by investigating whether the reading direction effect could arise irrespective of contexts. Participants in this study completed two seemingly unrelated tasks: firstly a reading or pictorial priming task that facilitated or impeded reading knowledge activation, then an evaluation task on a brand logo that moved horizontally. It was demonstrated that the reading direction effect was replicated among reading primed participants, but was removed among pictorial primed participants. These findings suggest that the effect in question should only be sensitive to contexts where reading knowledge is sufficiently accessible.

Study 4: The Influence of Multitasking Instruction Salience

Motor fluency effects have been shown to be effector dependent (Topolinski and Strack 2009). Hence, a concurrent unrelated motor task, say, a manual motor task, shouldn't cause any interference on the ocular motor activities that lead to the reading direction effect.

However, a concurrent unrelated motor task might still exert influence on the reading direction effect, especially when the viewer erroneously attributes the fluency feelings as a result of ocular motor activities to the action of the concurrent motor task. Such misattribution may cause the viewer to discount the information value of her fluency feelings and stop using them in her evaluation processes. It is expected that multitasking instruction salience will moderate the emergence of the reading direction effect, such that the effect will appear under nonsalient multitasking instruction (i.e., fluency effect), but will disappear under salient multitasking instruction (i.e., misattribution-caused-discounting effect).

Study 4 examined conditions under which the reading direction effect was susceptible to a concurrent unrelated motor task. We found multitasking instruction salience as such a condition. For participants who evaluated a moving brand

logo while kneading a rubber ball, the reading direction effect occurred under nonsalient multitasking instruction, but diminished when multitasking was explicitly required in the instruction. Meanwhile, little difference was found on the amount of attention paid to the brand evaluation task between participants receiving salient and nonsalient multitasking instruction, ruling out the alternative explanation of attention depletion. These results show that the reading direction effect, though effector dependent, can still be dampened by an unrelated motor task to which fluency feelings are misattributed.

This research represents one of the first attempts to demonstrate that consumer attitudes can be shaped by subtle eye movements. Moreover, moving stimuli are subject to spatial biases when consumers form judgment of them. Hence, marketers should heed that “motion sells” is not an eternal law. Its validity should depend on motion directions and consumers’ language background.

For more information, contact: e.li@cqu.edu.au

Consumers' Use of 'Time Flies Left to Right' Metaphor: The Impact of Spatial Position of Visual Cues on Product Judgment in Advertisement

Boyoun (Grace) Chae, University of British Columbia, Canada*

JoAndrea Hoegg, University of British Columbia, Canada

Why is the Mac guy always standing on the right in the series of Mac vs. PC ads? Why do ads for weight loss programs usually display the ‘before’ picture on the left and the ‘after’ picture on the right? Would switching position of the ‘before’ and ‘after’ pictures change consumers’ evaluation of the diet programs? No research has documented yet whether and how the horizontal positions of visual components in advertisements influence consumption. This research examines the position effect on product judgment as a consequence of consumers’ reliance on a ‘Time flies left to right’ metaphor, and illuminates the underlying mechanism of the use of the metaphor.

Past research has documented that metaphors influence consumers’ judgment and choice (Nelson and Simmons 2009). Adding to this research, we focus on the use of ‘Time flies left to right’ on product judgment. The metaphorical association was empirically documented by Santiago et al. (2007). They showed that temporal concepts were judged faster when the horizontal position of temporal words were congruent with the ‘Time flies left to right’. (Santiago et al. 2007). Extending this finding, we propose that a metaphorically congruent (vs. incongruent) position results in a more favorable attitude toward the product. We argue that this occurs because a metaphorically congruent position satisfies consumers’ need for structure. People are motivated to structure information (Harvey, Hunt, and Schroder 1961) and prefer information that is congruent with their knowledge structures (Fiske and Taylor 1991). Research on the functionality of metaphor has argued that metaphors function as knowledge structures much like stereotypes or schemas (Lakoff and Johnson 1980).

We propose that consumers rely on a ‘Time flies left to right’ metaphor in judging products: they are more favorable to products when the visual components of the ads are displayed congruently with the metaphor. We also examine that need for structure is the main driver of consumers’ use of the metaphor in product evaluation. Specifically, we examine the moderating role of individual tendency to rely on structure and the mediating role of sense of structure in the impact of horizontal position of visual components on product evaluation.

Study 1 examined the effect of the ‘Time flies left to right’ metaphor in a self-improvement product (i.e. a weight loss program) advertising context. The study adopted a 2 (ad position: metaphor congruent vs. metaphor incongruent) x 3

(priming: time, other, none) between subjects design. Participants were asked to arrange a series of cards in chronological order (in the *time* priming condition) or asked to arrange a series of cards according to color (in the *other* priming condition) before evaluating a weight loss program advertisement. In the *no* priming condition, participants simply evaluated the ad. Ad position was manipulated by displaying a 'before' image (i.e., a heavy woman) on the left and an 'after' image (i.e. a thin woman) on the right for the *congruent* condition or in the reversed order for the *incongruent* condition. Results revealed that people in the *time* priming and *no* priming conditions were more favorable to the product when the positions of the product images were congruent with the time-space metaphor. However, people in the *other* priming condition were indifferent between the two ads. In sum, study 1 found that people naturally use 'Time flies left to right' metaphor and, as a result, a metaphorically congruent (vs. incongruent) position results in a more favorable attitude toward the product. Moreover, it showed that disrupting the use of metaphor by taking temporal concepts from the metaphorical link (i.e., priming concept attached to horizontal position other than temporal concepts) mitigates the position effect.

Study 2 examined the moderating role of need for structure on consumers' tendency to be influenced by the metaphor. We expected that people who are motivated to rely on structure (who score in high Personal Need For Structure (PNFS: Neuberg and Newsom 1993) are more likely to show the position effect. A 2 (ad position: metaphor congruent vs. metaphor incongruent) x 2 (priming: time vs. other) between subjects design with personal need for structure as a continuous variable. The findings in study 1 were replicated. Moreover, as expected, the position effect was only found among people with high PNFS.

In Study 3, we disrupted consumers' use of metaphor by leading people to project time onto vertical line rather than horizontal line. The result showed that disrupting the use of 'Time flies left to right' metaphor by removing horizontal concepts from the metaphor (i.e., by proving alternative way that projecting time onto vertical axis) attenuates the above effect.

Study 4 directly showed that the sense of structure mediates the effect. We found that participants felt an ad was more well-structured, logical and certain when the ad layout was congruent (vs. incongruent) with the 'Time flies left to right' metaphor.

Study 5 extends our investigation to advertisements in which a single product image is presented. Further, it tests whether the positioning effect is robust when a static temporal concept (*either* future *or* past) rather than time-flow (*from* past *to* future) is implicated in consumption. Specifically, we examined the position effect when consumers were primed with 'future' or 'past.' Priming was manipulated by presenting a shopping scenario in which an individual seeks newness versus a classic old style. If newness (oldness) is a desirable attribute, people should be more favorable toward the product when the advertisement displays the product on right (left). A 2 (ad position: left vs. right) x 2 (desirable product attribute: oldness vs. oldness) ANOVA result supported the predictions.

This research makes several contributions. First, it documented how the horizontal position of visual components in ads influences product judgment and validated that the position effect occurs due to consumer's use of a 'Time flies left to right' metaphor. Second, we show that consumers' desire to have structure is a mechanism underlying consumers' use of metaphor. Lastly, this research offers valuable practical implications. It suggests that marketers should strategically use spatial position of visual cues based on consumers' use of time-position metaphor.

For more information, contact: boyoun.chae@sauder.ubc.ca

I Like Where I See: The Crossmodal Effect of Attention on Preferences

Hao Shen, The Chinese University of Hong Kong, Hong Kong*

Jaideep Sengupta, HKUST, Hong Kong

Consumers often have to decide between two products located adjacent to each other – as for example, on a supermarket shelf. How are such decisions, which are based on visually processing the two products, influenced by unrelated, non-visual stimuli that may emanate from either lateral direction? Suppose, for example, that you are standing in a supermarket aisle, trying to decide between two packets of cookies, one placed nearer your right side and the other nearer your left. While you are trying to decide, you hear an in-store announcement, on your left, about store closing hours. Will this unrelated announcement influence your cookie decision? Or consider a different scenario: in trying to decide between the two packets of cookies, you pick one up the one on your right side. Will doing so influence your choice of unrelated products that are also in your eyeline at the time – e.g., packets of chips on the shelf above?

This research seeks to answer such questions by demonstrating what we believe is a novel phenomenon: namely, an enhancement in product evaluations that are based on visual processing, as a result of a spatial match between the product's location along a lateral dimension and the location of an external, non-visual stimulus. Thus, in the first example above, the store announcement from the left (an auditory stimulus) should increase the preference for the cookie packet on the left. In the second instance, picking up the cookie packet on the right (a tactile stimulus) should enhance preference for the packet of chips placed towards the right in the shelf above.

According to our theorizing, such phenomena are driven by crossmodal links in spatial attention (see Driver and Spence 1998a, 1998b for a review). Because of such links, when attention in one sensory mode is drawn in a particular direction, people find it easier to direct attention in another sensory modality towards that direction. Thus, an auditory (in the first example) or a tactile (second example) stimulus from a particular direction makes it relatively easier for consumers to process products that are more aligned with that general direction. The consequent fluency of processing, we argue, should directly influence product evaluations and choice.

In study 1, participants were asked to listen to a news broadcast while simultaneously being exposed to pictures of two hotel rooms, one on the right of the computer screen in front of them and the other on the left. The key manipulation involved the location of the broadcasting loudspeaker, which was placed either towards the left or right corner of the room. We found that participants paid more visual attention to the hotel room on the left (right) of their screen if the auditory signal came from their left (right), and that this attention bias was reflected in fluency of processing as well as actual preference for the room on the corresponding side.

Study 2 used a misattribution paradigm (cf. Schwarz 2004) to provide further evidence that the increase in preference was due to the fluency of processing the target that is closer to the audio location. A 2 (attribution: yes/no) × 2 (location of audio: left/right) design was used. Participants listened to an audio advertisement about a cake store while viewing pictures of two cupcakes placed on the left and right of their computer screen. The audio ad emanated from a loudspeaker that was placed either on the left or the right of the room. Participants in the attribution condition were told that we were interested in how easy or difficult they found it to engage in two simultaneous tasks (i.e., listening to the ad while evaluating the on-screen cupcakes). This instruction was omitted in the no-attribution control condition. Results showed that those in the control condition were more likely to choose the cupcake located along the same lateral side as the voice, replicating Study 1. In the attribution condition, however, because participants are likely to attribute their feelings regarding processing ease to the simultaneous nature of the task rather than to the cupcakes themselves, preference for the latter was not affected by voice location.

Study 3 sought to examine whether similar preference effects would be obtained if attention were to be drawn by a tactile (rather than auditory) stimulus. In this study, participants were induced to dip the fingers of either their left or right hand into a cup of water in order to estimate its temperature. At the same time, they were asked to evaluate pictures of two restaurants on their computer screen, one on the right and the other on the left. Again, participants preferred the restaurant that was in the same lateral direction as the hand they used to dip into the cup of water; and the effects were driven by greater processing fluency.

Study 4 aimed to illustrate the applied implications of our findings by documenting them in a field setting. The study was conducted in the context of choosing a product from one of two adjacent vending machines, both selling soft drinks. A speaker was placed on top of each machine; both speakers were then linked to a notebook computer broadcasting a local news bulletin. The two speakers' volumes were adjusted to ensure that at any moment in time, only one of them (either the one on the right or on the left) was playing at normal volume, while the other was muted. The position of the mute and normal speaker was switched after every ten purchases. As would be predicted given our earlier results, we found that consumers were more likely to purchase a drink from the machine on which the normal-volume (rather than the mute) speaker was placed.

This represents the first investigation of how attention shifts in one sensory mode can influence preferences in another. In doing so, not only does this research add to the basic psychology literature, but also to the small but growing body of work illuminating the vital role of the senses in shaping product preferences (Elder and Krishna, 2010; Krishna and Morrin, 2008).

For more information, contact: shenhao@baf.msmaail.cuhk.edu.hk

2.3 Symposium: Online Social Networks: Why do People Use them and What are their Consequences?

Room: Desert Willow

Chair: Eva Buechel, University of Miami, USA

Why People Use Social Media: How Online Social Identity and Motivations Influence the Experience of Being Connected

Donna Hoffman, UC Riverside, USA*

Thomas Novak, UC Riverside, USA

Social media, which by definition involve individuals relating to each other, represent new and fertile ground for exploring what drives online social behavior. Not surprisingly, the popularity of social media has stimulated a surge of research in recent years examining social media usage. However, most of this research has been largely descriptive or focused on linking individual differences to usage behavior of a particular type of social media, usually Facebook (e.g. Back, et.al. 2010; Buffardi and Campbell 2008). While this research is contributing to our understanding of social network use, research focused on developing and testing a conceptual framework that unpacks social media usage more generally in terms of what motivations drive use and how usage goals are related to key needs has yet to emerge.

We contend that social media offers individuals the opportunity to satisfy basic psychological needs. Since the need to belong is fundamental (Fiske 2004), it stands to reason that individuals use social media because they are fundamentally motivated to connect with each other and that using social media has the potential to provide these connections and to satisfy relatedness needs. Whether or not these needs are satisfied depends on the goals individuals pursue while

engaging in social media behavior and the motivations underlying this goal pursuit. This suggests that examining how social media goal pursuit predicts the satisfaction of relatedness as a function of several theoretically relevant constructs may lead to a more comprehensive framework linking behavior and need outcomes. The goal of this paper is to begin to assemble this framework by examining how online social identity, the tendency to derive self-concept from online social graphs, and motivational orientation, moderate the relationship between the type of social media goals pursued and the experience of feeling connected.

Theory. Most researchers implicitly assume that because social media are, by definition, social, it is the social interactions in social media that motivate use (e.g. Buffardi and Campbell 2008; Steinfield, Ellison and Lampe 2008) and drive the experience of feeling related (e.g. Sheldon, Abad and Hinsch 2011). But goals focused primarily on content can also be a focus in online interaction (Hoffman and Novak 2011). Thus, the type of goal pursued, social or content, may differentially predict relatedness needs.

Social media goals can be defined in a self-determination theory framework (Deci and Ryan 2000) according to the degree of autonomy they are perceived to afford (Ryan and Connell 1989). Thus, people may use social media because they are intrinsically motivated to do so or people may pursue social media goals for extrinsic reasons where the behavior supports some instrumental, separable outcome. A highly relevant extrinsic motivation for social media is introjected motivation, where individuals are strongly motivated by the desire to appear worthy to themselves and to others (Deci and Ryan 1995) and their self-esteem is thus dependent on the separable outcomes such as social approval derived from the social media behaviors they engage in. We argue that intrinsic and introjected motivational orientations will differentially moderate the relationship between goal pursuit and relatedness.

Since social media involve interacting with groups of other individuals, we argue that “online social identity,” defined as *the degree to which an individual perceives their online social graphs as important to their self-concept*, will moderate the degree to which goal pursuit predicts the experience of relatedness. This construct represents a construal of the self in the context of the groups of individuals one interacts with in social media applications and is derived from Luhtanen and Crocker’s (1992) identity dimension of collective self-esteem.

Method. We derived four key hypotheses from our theory and designed a large-scale study to test our predictions. The study collected multilevel data at two levels – person and goal – from a total of 338 participants. At the goal level, participants were asked to identify their five most important objectives when using social media, and to rate these objectives on items tapping relatedness, intrinsic motivation, and introjected motivation. At the person level, we collected two dispositional measures, a 4-item scale of *online social identity* adapted from Luhtanen and Crocker 1992 and an 8-item scale of *dispositional relatedness* (Gagné 2003). A total of 1690 social media goals obtained from the 338 participants were independently coded by two judges into either *social goals* (n=884) or *content goals* (n=806). Social goals were further coded into *friends and family*, *people*, and *affinity groups*. Content goals were also further coded into *get information*, *experience*, and *give information* groups. Multilevel linear models with random intercepts and a set of fixed effects were estimated using maximum likelihood. We used multilevel models to properly handle correlated observations resulting from hierarchical data structures (e.g. Hox 2002). Models were fit to the full sample of all goals, a subsample of only social goals, and a subsample of only content goals.

Results. Our findings reveal that pursuit of social goals leads to higher relatedness need satisfaction compared to content goal pursuit (H1a), but higher online social identity leads to higher relatedness when social media goals involve content (H1b). Social goals involving strong ties produce more relatedness than social goals involving weak ties (H2a), but higher online social identity increases relatedness the most for weaker ties (H2b). Content goals involving creating content are associated with higher relatedness than content goals involving consuming content (H3a), and online social

identity increases the relatedness for create goals compared to consume goals (H3b). Experience goals produce relatedness levels similar to consume goals. Consistent with our congruence hypothesis, higher intrinsic motivation increased relatedness for social goals, but not content goals (H4a), while higher introjected motivation increased relatedness for content goals, but not social goals (H4b). Also consistent with our congruence hypotheses, online social identity gives a boost to relatedness when the motivational orientation matches the content goal type. Experience goals behave differently than consummatory and instrumental content goals in that higher motivation, either intrinsic or introjected, increases relatedness independent of the level of one's online social identity.

For more information, contact: tom.novak@ucr.edu

Facebook Therapy? Why People Share Self-Relevant Content Online

Eva Buechel, University of Miami, USA*

Jonah Berger, University of Pennsylvania, USA

The internet is pervasive, yet its impact on well-being is not well understood. Researchers (Kraut, et al., 1998) and cultural critics (Yoffe, 2009) argued that it reduces face-to-face interaction, leaving people depressed and lonely. Further, sites based on social interaction (i.e. Facebook) are thought to merely be “havens...for people with poor self-image...and narcissists demanding the world's attention,” (DiSalvo, 2010, p. 53; Buffardi & Campbell, 2008).

In contrast, we suggest that certain online behaviors (i.e., sharing self-relevant content) may actually be beneficial, aiding emotion regulation. People often post short messages about their thoughts, feelings, or actions (e.g., tweets or Facebook status updates). Though one might argue these “updates” are driven by vanity, or extraverts maintaining existing social ties (Gosling, et al., 2011), we suggest that such behaviors may also have therapeutic value, boosting emotionally unstable individuals well-being after negative emotional experiences.

Emotionally unstable individuals experience emotions more intensely (Barr, Kahn, & Schneider, 2008) and negatively (Costa & McCrae, 1980), and are less adept at cognitive regulation (Gross & John, 2003). Consequently, they may be more likely to rely on others to help them deal with their emotions. Further, given they tend to be socially apprehensive (Luminet, et al. 2000) they may be particularly likely to rely on online expression because it is less threatening (i.e., non-face-to-face setting and general nature of posting).

But while research has documented long-term cognitive benefits of expressive writing (Pennebaker, 1997; 1999), the social benefits of sharing have not been systematically isolated (Frattaroli, 2006). Given that sharing emotion encourages social bonding (Peters & Kashima, 2007), however, some theorized that it may buffer negative emotions in the short-term by encouraging emotional support (Rimé, 2007; 2009). We test this possibility. In particular, we suggest that emotionally unstable individuals are more likely to rely on, and benefit from, sharing self-relevant content with others. We examine whether emotionally unstable individuals (1) post more status updates and share their emotions when doing so and (2) whether this type of sharing boosts their well-being after negative emotional experiences by increasing perceived social support.

In Study 1a participants were either asked (1) how often they update their Facebook status and share feelings and emotions with others through such updates or (2) with others in person. They also completed a Big Five Personality Inventory (Gosling, Rentfrow, & Swann, 2003). Multiple regressions examined how Big Five personality traits related to status update frequency and emotion expression, both online and offline. Emotionally unstable participants reported updating their status more frequently. Further, while emotionally unstable people did not report sharing feeling and

emotions more with others in person, they did report sharing feeling and emotions more through online updates.

In Study 1b undergraduates were asked how often they update their Facebook status and completed the Big Five Personality Inventory. They also copied their 10 most recent status updates into the survey. Two coders, blind to the hypothesis, coded these updates for presence vs. absence of emotion expression. Replicating Study 1A the only significant personality factor predicting the frequency of status updating was emotional instability. Content analysis of their status updates revealed that emotionally unstable individuals also expressed more emotions in their updates.

Study 2 examined the consequences of such emotional sharing. Participants completed two ostensibly unrelated studies. First, everyone had a negative affective experience through getting false feedback on an anagram performance task (Forgas, 1991). Participants also provided a close other's email address to ensure that close others were similarly activated for across conditions.

Next, they completed a "writing study". Some participants wrote about a control topic (office products). The other three conditions wrote about their current emotions, either (1) in private while thinking about the close other whose email they provided, or (2) to be shared with the close other who they were told would not be able to respond or (3) who might respond. This allowed us to test whether merely thinking about or sharing with a close other is sufficient, or whether potential response is necessary to boost well-being.

Finally, participants reported their current well-being, perceived social support (Metzler, 2003), and emotional stability (McCrae & Costa, 2004).

In addition to a main effect of emotional stability on well-being, regression analysis revealed a significant emotional stability x condition interaction for the response possible and control condition. The other two conditions did not differ from control.

Spot light analysis revealed that for low emotionally stable individuals (-1SD), writing only increased well-being when it was to be shared with a close other who might respond, but not for the other two writing conditions. There was no corresponding effect of condition among highly emotionally stable individuals (+1SD). In other words, writing with potential response helped close the well-being gap. Finally, consistent with our theorizing, this boosted well-being from sharing with potential response was mediated by perceived social support. Importantly, these benefits come not merely from writing (which can provide long-term cognitive benefits), writing about emotions (i.e. venting), or sharing emotion. Further, they were not driven by the content written: There was no condition x emotional stability interaction on the valence, length, or emotionality of what people wrote, and most participants did not even write about the negative feedback. Instead, the notion that a close other would read what they had written and potentially respond boosted well-being by increasing perceived social support.

These results provide insight into a motivator for, and benefit of, online social networking. Emotional unstable individuals are more likely to post self-relevant information and write about their emotions when doing so. Further, such emotional writing, paired with the potential to receive social support – as on social networking sites – helps them repair well-being after negative experiences.

For more information, contact: buechel@miami.edu

Are Close Friends the Enemy? The Effect of Online Social Networks on Self-Control

Keith Wilcox, Babson College, USA*

Andrew Stephen, University of Pittsburgh, USA

Online social networks (social networks) are having a fundamental and important influence on society. Facebook, the largest social network, has over 750 million active users (www.facebook.com). The success of social networks, however, is not based simply on the number of active users, but also on the amount of time people spend on these websites. For instance, social network use comprises nearly 23% of the time spent online in the United States, which is approximately double the time spent on any other online activity (Nielsen 2010). Despite their popularity and frequent use, a systematic understanding of the effect of social networks on consumer behavior remains elusive. Does using a social network, for instance, impact the choices consumers make in their daily lives? If so, what effect does social network use have on consumers' well-being?

In this research, we examine how social network use affects consumer judgment related to two important issues: health and financial well-being. We demonstrate that social networks influence behavior in an unexpected way: Browsing a social network lowers consumers' self-control, which reduces their performance in subsequent tasks requiring self-regulation. We argue that social networks momentarily boost consumers' self-concept and that this increase in feelings of self-worth can have a detrimental effect on their self-control. Additionally, we show that this effect emerges primarily for consumers that maintain relatively close relationships with their friends on the social network because the influence of social networks on behavior is contingent on the strength of people's connections to their social network.

These predictions were tested in four studies. In study 1, five hundred forty-three Facebook users from an online panel covering the general population of U.S. Internet users participated in an online survey. The survey included several questions about social network use and behaviors related to self-control in eating and financial decision-making. The findings demonstrate that greater Facebook use is associated with a higher body-mass index (BMI), a greater likelihood of binge eating, more credit card debt and a lower credit score. However, the effect emerges primarily in people with close connections to their Facebook friends.

The correlational nature of the data in the first study, however, makes it difficult to establish a causal relationship between Facebook use and self-control. For instance, people with strong ties to their friends that spend a lot of time on Facebook could simply be poor in self-control. Consequently, the remaining studies directly manipulate Facebook use to show that people with close connections to their Facebook friends display less self-control after browsing Facebook compared to not browsing Facebook.

In study 2, one hundred sixty-nine Facebook users from an online panel participated. The study was comprised of in three parts that were disguised as separate studies. In the first part, participants answered several general questions about their Internet use including how close they are to their friends on Facebook. Next, participants were administered a website viewing task where they either browsed Facebook or a popular news website (CNN.com) for five minutes. Finally, participants were administered a consumer products study that involved various consumer choices. The first decision was a food choice where participants chose between a healthy option (a granola bar) and an unhealthy option (chocolate chip cookies) as a snack. As expected, participants who browsed Facebook were more likely to make an unhealthy choice compared to those that browsed CNN.com. However, the effect emerged only in people with close connections to their Facebook friends. In study 3, we manipulated Facebook use in the same fashion as study 2 before having respondents participate in an online auction for a new Apple iPad. As in the previous study, participants with close connections to their Facebook friends displayed less spending control (i.e., they submitted higher bids) during the auction after browsing Facebook compared to CNN.com.

In study 4, we ruled out the possibility that Facebook use simply makes people more impulsive by examining how Facebook use influences persistence in an unsolvable anagram task, which is a more general measure of self-control (Vohs and Heatherton 2000). Additionally, we measured self-esteem after the task. As expected, participants with close ties to their Facebook friends gave up quicker at the unsolvable task after browsing Facebook compared to CNN.com. Conditional indirect effects analyses using a bootstrap method (Preacher, Rucker and Hayes 2007) finds that the effect of browsing Facebook on persistence is mediated by self-esteem for those with close connections to their Facebook friends.

Social networks, such as Facebook, are now part of the daily lives of hundreds of millions of people around the world. Indeed a number of psychological benefits can be derived from social network use. However, this research demonstrates that using a social network (Facebook) may have a detrimental effect on behavior by lowering consumers' self-control. These results are concerning given the increased time people spend using social networks, as well as the worldwide proliferation of access to social networks anywhere anytime (i.e., via mobile smartphones, smart TVs, tablet computers, etc.). Given that self-control is important for maintaining social order and personal well-being, this subtle effect could have widespread impact. This is particularly true for adolescents and young adults who are the heaviest users of social networks and have grown up using social networks as a normal part of their daily lives.

For more information, contact: kwilcox@babson.edu

Beyond the "Like" Button: Exploring the Effects of Mere Virtual Presence on Brand Evaluations and Purchase Intentions

Rebecca Walker Naylor, Ohio State University, USA*

Cait Poynor Lamberton, University of Pittsburgh, USA

Patricia West, Ohio State University, USA

While many companies have embraced social media as a way to connect with consumers, the consequences of revealing the identity of a brand's supporters on social media platforms is not well-understood. We propose that this decision is non-trivial: Even when the presence of other consumers is only passively experienced and virtual (a situation we term "mere virtual presence," or MVP), the identity of other brand supporters has a substantial impact on consumers' evaluations and purchase intentions for unfamiliar brands. Across four studies, we explore the effects of four distinct types of MVP. Relative to a given consumer, MVP may constitute photographs of demographically *similar*, demographically *dissimilar*, or a *heterogeneous* mix of similar and dissimilar individuals. In contrast, the social media site may be structured in such a way that MVP remains *ambiguous* because no photos of supporters are shown. Following Naylor, Lamberton, and Norton (2011), we define ambiguous brand supporters as supporters about whom no or very limited identifying demographic information is provided. We predict that when MVP is ambiguous, consumers will project their own characteristics onto the brand's user base, emerging with a higher level of affinity for the brand compared to that created by dissimilar MVP due to egocentric anchoring.

The results of Study 1 support this prediction: the MVP of an unfamiliar brand's supporters on a brand's Facebook page (displayed via profile pictures) evokes equivalent levels of liking when it is composed of a homogeneous group of similar individuals, a heterogeneous group of dissimilar and similar individuals, or when other brand supporters are left demographically ambiguous. In contrast, a homogenous group of dissimilar others produced significantly less brand liking. Study 1 also demonstrates that inferred commonality with a brand's users, rather than attractiveness of the specific supporters shown, explains the effect of MVP on liking for the brand.

Studies 2a and b replicate these findings, but also suggest greater generalizability. First, both studies are conducted in social media sites outside the Facebook domain. Second, we present different operationalizations of ambiguity and heterogeneity. It is important to note, however, that Studies 1 and 2's effects were seen in the context of only one brand's social networking presence, that is, in a separate evaluation context. Thus, the goal of Study 3 was to examine whether these effects hold in a joint evaluation context more similar to the experience a consumer is likely to actually have on a social networking site.

Viewing multiple competing brands at a time can be characterized as a case of joint evaluation, whereas single brand viewing can be characterized as separate evaluation (Hsee and Leclerc, 1998; Hsee et al., 1999). In the present context, first consider separate evaluation of a brand with ambiguous MVP. We have argued that this brand will be evaluated positively since consumers infer that ambiguous others are like themselves. Now imagine that the same brand is viewed alongside a brand with similar MVP. Rather than focusing exclusively on egocentric anchor-driven inferences of similarity, the consumer compares the ambiguous MVP directly to the similar MVP of the other brand. When ambiguity is directly compared to similarity in this manner, the consumer will still infer commonality with the ambiguous brand's user base, but this inferred information is likely to be weaker than the certain information observed when demographic similarity is displayed. Thus, in joint evaluation contexts, we predict that consumers will have higher evaluations of a brand about which commonality is certain (i.e., a brand whose supporters constitute similar MVP) than a brand about which they have to make an inference (i.e., a brand whose supporters constitute ambiguous MVP), even if the egocentric-anchoring-driven inference would have, under separate evaluation, lead to equivalent levels of liking for the brands with ambiguous and similar MVP.

The results of Study 3 support this prediction: in separate evaluation contexts, ambiguous MVP leads to an almost identical response as that generated by similar MVP, but, in joint evaluation contexts, ambiguous MVP leads to a less positive response than similar MVP (although still greater than that evoked by dissimilar MVP).

Though much work remains to be done in understanding the effects of social media, the present work provides insight into the way that the increased transparency about one's fan base that often comes with a social media presence impacts consumers new to the brand. We show that the effects of revealing the identities of a brand's fan base vary depending on the demographic composition of the individuals presented. The MVP of a homogeneous group of demographically similar consumers creates more positive effects on inferences of commonality, brand evaluation, and purchase intentions than does the MVP of a homogenous group of demographically dissimilar consumers. We also demonstrate that effects like those created by similar MVP can be generated when MVP is heterogeneous, as long as even a single similar individual is presented. This finding suggests that brands need not fear diversity on social networking sites, as long as some representation of a target audience appears in the group of supporters shown. Further, we show that, in a separate evaluation context, consumers' responses to ambiguous MVP are not markedly different from their responses to similar MVP, creating more positive evaluations than dissimilar MVP. This finding suggests that ambiguity may be the preferred strategy in a separate evaluation context.

However, in joint evaluation contexts, we see that ambiguity is *not* as powerful as similarity in generating brand liking. These findings suggest that if the consumer is likely to evaluate a brand in isolation, then leaving the brand's supporters ambiguous may be the safest strategy (since there is no risk of showing supporters that will be perceived as dissimilar). If the brand is likely to be encountered in a context where it is being compared to multiple other brands, though, the brand manager may need to display information about online supporters, despite the potential risks, in order to compete with brands with supporters whose demographic characteristics are displayed.

For more information, contact: naylor_53@fisher.osu.edu

2.4 Individual Papers: Don't Cry for Me: Sadness and other Emotions

Room: Palo Verde

Chair: Matthew Thomson, University of Western Ontario, Canada

Awe Expands People's Perception of Time, Alters Decision Making, and Enhances Well-Being

Melanie Rudd, Stanford University, USA*

Kathleen D. Vohs, University of Minnesota, USA

Jennifer Aaker, Stanford University, USA

Time is a scarce consumer commodity (Leclerc, Schmitt, & Dube, 1995). In fact, feeling one has too much to do and too little time is known as “time famine” (Perlow, 1999) and produces undesirable consequences including fatigue, stress, and even postponing a doctor’s visit when ill (Lehto, 1998; Vuckovic, 1999). Although science cannot expand the amount of time in each day, could it shift consumers’ perceptions of how much time is available? Three experiments examined whether experiencing awe can expand time perceptions and, in turn, impact consumer decision-making and well-being.

Can awe, defined as the feeling that arises when one encounters a stimulus so strikingly vast (in time, scope, complexity, ability, or power) it provokes a need to update one’s mental schemas (Keltner & Haidt, 2003), increase perceived time availability? Prior research and theory suggest so. Experiences involving awe, such as optimal athletic performances (Ravizza, 1977) and spiritual events (Fredrickson & Anderson, 1999) often involve a sense of timelessness. The phenomenology of awe, therefore, suggests it might expand time perceptions. Two psychological theories are also relevant. The first is the extended-now theory (Vohs & Schmeichel, 2003), which demonstrates focusing on the present moment elongates time perceptions. Awe captivates people’s attention on what is unfolding before them, which the extended-now theory predicts would expand time perceptions. The second is Socioemotional Selectivity Theory, which shows people seek to acquire knowledge when time feels expansive (Carstensen, Isaacowitz, & Charles, 1999). Awe’s triggers within people a desire to create new knowledge structures (Keltner & Haidt, 2003), which therefore may be a signal that awe leads the mind to perceive time as expansive.

Awe’s predicted ability to expand time perceptions was also hypothesized to have several consequences. First, perceived time availability is thought to affect certain prosocial decisions. For instance, time scarcity hinders the tendency to help someone in distress (Darley & Batson, 1973) and is a common barrier to volunteering (Hall et al., 2009). Therefore, awe, by creating the perception of plentiful time, might increase one’s willingness to spend time helping others.

Second, time perception can influence people’s decisions about how to live life. For instance, insufficient time is an oft-cited reason for not engaging in leisure experiences (Mannell & Zuzanek, 1991). Time perception may also influence decisions to acquire experiences versus material goods (Van Boven & Gilovich, 2003), as one inherent quality of experiential goods is they require the experiencer devote time to savor the attendant feelings and sensations (Quoidbach et al., 2010). Thus, by inducing a sense of ample time availability, awe might enhance preferences for experiences.

Third, time perception is often an indicator of well-being. For instance, people who report feeling “always” rushed have lower life satisfaction than do others (Robinson & Godbey, 1997) and feeling one has little time available has been

linked to depressive symptoms (Roxburgh, 2004). Thus, awe, through expanding time perceptions, might boost momentary life satisfaction.

Experiment 1 tested whether feeling awe expands time perceptions. To demonstrate that awe's temporal consequences are not characteristic of all positive emotions, awe was contrasted with happiness. Because awe is often elicited during events that one might associate with minimal time pressure (such as exposure to nature; Shiota, Keltner, & Mossman, 2007), it is possible that perceiving time as expansive is merely a prerequisite for experiencing awe, and not a consequence thereof. To address this alternative account, all participants were initially primed to perceive time as constricted, using a sentence unscramble task (Srull & Wyer, 1979). Next, participants watched either a one minute awe-eliciting or happiness-eliciting commercial for an LCD television. Participants subsequently reported their agreement on a perceived-time-availability index ("I have lots of time in which I can get things done," "time is slipping away" (reverse-scored), "time is expanded," and "time is boundless") and current emotions.

Manipulation checks confirmed awe (versus happiness) condition participants experienced more awe and less happiness. An ANOVA then revealed awe (versus happiness) condition participants perceived greater time availability. Furthermore, across both conditions, stronger feelings of awe were correlated with greater perceived time availability.

Experiment 2 tested whether awe, via influencing time perceptions, affects willingness to volunteer time. In this experiment, momentary impatience was the measure of time perception, as it is associated with perceiving time as insufficient (Glass, Snyder, & Hollis, 1974; Lang & Markowitz, 1986). To elicit emotions, participants wrote about a personal experience, with those in the awe [happiness] condition writing about an experience that made them feel awe [happiness]. Participants then reported their feelings of impatience, willingness to donate time, willingness to donate money, and current emotions.

Manipulation checks confirmed awe (versus happiness) condition participants experienced more awe and less happiness. An ANOVA then revealed awe (versus happiness) condition participants reported reduced impatience and a greater willingness to volunteer time. Finally, a mediation analysis determined awe's influence on time donation was driven by its influence on time perception: Awe (versus happiness) reduced impatience, which in turn increased willingness to donate time. Importantly, the awe and happiness conditions did not differ in willingness to donate money (a non-temporal form of prosociality), ruling out the alternative explanation that awe simply increases all prosociality.

Experiment 3 tested whether awe influences well-being and consumption decisions via expanding time. To elicit emotions (awe versus neutral), participants read stories depicting prototypical elicitors of the target emotion (Griskevicius, Shiota, & Neufeld, 2010). Participants subsequently reported their feelings of impatience, momentary life satisfaction, hypothetical choices between experiential versus material goods, and current emotions.

A manipulation check confirmed awe (versus neutral) condition participants experienced more awe. ANOVAs then revealed awe (versus neutral) condition participants reported reduced impatience, greater life satisfaction, and preferred more experiential (versus material) goods. Mediation analyses determined awe's influence on life satisfaction and experiential (versus material) choices was driven by its influence on time perception: Awe (versus neutral feelings) reduced impatience, which in turn increased life satisfaction and preferences for experiential goods.

In sum, awe increased willingness to volunteer time, preferences for experiential goods, and life satisfaction, all through expanding perceptions of time. Thus, awe-eliciting experiences might offer an effective solution to the feelings of time starvation that plague consumers in modern society.

For more information, contact: mrudd@stanford.edu

Sadder, but Not Wiser: The Myopia of Misery

Jennifer Lerner, Harvard University, USA

Ye Li, Columbia University, USA*

Elke Weber, Columbia University, USA

Intertemporal choices, which require a decision between a sooner (usually smaller) reward and a later (usually larger) reward, are pervasive in daily life and have important consequences. Given the choice between a smaller, sooner reward and a larger, later reward, people typically choose the smaller, sooner, reward exhibiting in economic terms irrationally high discount rates, which have been linked to a multitude of undesirable consequences including insufficient savings, drug use, and obesity.

Although emotion is often posited as the main driver for irrationally high discount rates (Bazerman & Moore, 1990; Loewenstein & Prelec, 1992; Loewenstein, Read, & Baumeister, 2003), no studies have tested for their causal role, except for some recent research finding that positive emotion reduces the preference for present over future outcomes (Ifcher & Zarghamee, 2011; Pyone & Isen, 2011). On the other hand, the appraisal-tendency framework (Lerner & Keltner, 2000, 2001) posits that sadness is characterized by appraisals of experiencing irrevocable loss (Lazarus, 1991) and thus is accompanied by action tendencies to change one's circumstances, perhaps by seeking immediate rewards (Lerner, Small, & Loewenstein, 2004). Consistent with this view, research has found that individuals induced to feel sad spend more to purchase items and demand less to sell their possessions than do neutral individuals (Lerner, et al., 2004). Sadness has been shown to trigger a generalized devaluation of the self (Cryder, Lerner, Gross, & Dahl, 2008), which creates an implicit desire to enhance what William James (1890) called the "material self."

Three incentivized experiments randomly assigned decision-makers to emotional states to test the hypothesis that sadness, but not other negative emotions, would increase impatience in intertemporal choices. Experiment 1 induced 202 participants (57% female; ages 18 to 63) to feel neutral, sad, or disgusted using standard protocols including watching a video and writing an essay. Participants then made 27 choices between receiving cash today (amounts ranging from \$11-\$80) or more cash (\$25-\$85) at points in the future ranging from 1 week to 6 months (see Kirby, Petry, & Bickel, 1999). Following standard behavioral-economics procedures, we incentivized participants to express their true preferences by randomly selecting one of the choice pairs for one of the participants in each session (median of 13 participants per session) and paying out that person's preferred alternative. Even though induced sadness should be irrelevant to these decisions, it exerted strong, unique effects on discounting. Sadness significantly increased preference for immediate rewards whereas disgust did not have this effect. In monetary terms, whereas the median sad participant would settle for \$37 today rather than wait 3 months to receive \$85, the median neutral participant required \$56 today instead.

Experiment 2 applied Query Theory (Weber et al., 2007), a psychological process model of preference construction, by asking 189 participants (70% female; ages 19 to 69) to list their thoughts *before* making intertemporal choices between receiving a \$50 Amazon.com gift-certificate now or one for a larger amounts in three months. Using an established thought-listing protocol (Weber et al., 2007), participants provided their thoughts on this choice, made their decision, and subsequently coded their thoughts on whether each one favored receiving the money now, later, both, or neither. Sad participants were again more impatient: the median sad participant would settle for \$65 today rather than wait 3 months to receive \$100 whereas the median neutral or disgusted participant required \$74 today instead. Moreover, Experiment 2 identified a mechanism for how sadness affected discounting: Reasons for the immediate reward came to

mind sooner and more frequently when participants had been made sad.

Experiment 3 introduced a new question. Does sadness produce a general increase in impatience or is its effect limited to choices offering an immediate payoff? A key innovation in modeling discounting distinguishes between two types of processes that are represented in the quasi-hyperbolic discounting function, $D(t)=\beta\delta^t$, for $t > 0$ (Laibson, 1997; O'Donoghue & Rabin, 1999). One process (δ) reflects economically-rational exponential discounting of rewards that is sensitive to the length of delay, t . The other process, “present bias” (β), discounts all future rewards when there is *any* delay (regardless of its length) and is therefore far from rational. We hypothesized that sadness increases the desire to get something *now*, not just sooner, and should therefore increase present bias (β) but not rational discounting (δ).

Experiment 3 asked 203 participants (66.5% female, ages 19 to 68) to make 42 choices between A) immediate rewards versus later rewards; or B) later rewards versus even later rewards. As predicted, sadness resulted in greater impatience for A choices (in which an immediate reward was available), but not B choices (in which both rewards were delayed). Sad participants preferred immediate rewards to later rewards more strongly than neutral participants, but were no more generally impatient. That is, sad participants were more “present biased.”

The present experiments reveal the financial costs of sadness for intertemporal choices. The findings do *not* support the maxim that sadder is wiser, instead supporting the opposite: sadness is more myopic. Although sadness may make people more accurate in some contexts (Alloy & Abramson, 1979), it also makes them prefer immediate gratification—not an attribute associated with wisdom. Across three experiments, the median sad participant valued rewards delayed by a mere 3 months 13% to 34% less than the median neutral-state participant and rewards with *any* delay by 4% less. These differences emerged even though real money was at stake. Moreover, sadness increased present bias, a particularly harmful form of impatience as evidenced by Mischel and Ebbesen’s (1970) marshmallow experiments.

These experiments demonstrated the causal effects of sadness on impatient intertemporal choices. For ethical reasons we could not induce high-intensity emotion. Observed effects arose from low-intensity, experimentally-induced feelings of sadness that would undoubtedly be dwarfed by the real-life sadness people may experience after the death of a loved one or after a devastating natural disaster. Strong feelings of sadness over the loss of a family member can thus be expected to show far greater effects on the many high-stake intertemporal decisions involved in settling the deceased person’s estate. Sadness and depression are also common experiences for people who have been laid off. Our results suggest that such individuals might exacerbate their financial hardship by making intertemporal consumption decisions that favor immediate consumption more than is warranted or wise.

For more information, contact: yeli23@gmail.com

When More Leads to Less: Greater Automatic Emotional Reactivity is Associated with Less Intense Emotional Self-report

Daniel Fernandes, Erasmus University Rotterdam, The Netherlands*

Bart de Langhe, University of Colorado, USA

Stefano Puntoni, Erasmus University Rotterdam, The Netherlands

Consumer psychologists often rely on self-report measures to assess emotional experiences: When we want to know how people feel, we typically ask them. We document a counterintuitive finding: individuals who display stronger automatic reactions to emotional events report to be affected less by emotional stimuli.

Individuals appraise emotional events at various levels of automaticity or deliberation (Baumeister et al., 2007). On the one hand, we automatically assess the emotional significance of stimuli. This low-road affective response drives attention. Individual differences in automatic emotional reactivity can thus be assessed by measuring the extent to which individuals automatically attend to emotional stimuli (Williams et al., 1996). In addition, we deliberately assess the emotional significance of stimuli. This goal-driven, high-road emotional response is based on explicit mental processes and is accessible to introspection and reflection. Individual differences in deliberate emotional interpretations can thus be assessed with self-report scales that require participants to introspect about the extent to which they are generally affected by emotional events (e.g., Bloise & Johnson, 2007). In sum, whereas automatic processes elicit an incidental, bottom-up emotional *reaction* to what happens around us, deliberate processes generate an intentional, top-down emotional *interpretation* of the world.

Converging evidence indicates that behavior is determined by a complex interaction between automatic and deliberate emotional processes. Despite the success of dual-process models, little is known about how automatic versus deliberate processes contribute to emotional self-reports. This is an important issue because emotional self-reports are a major tool for theory development (Robinson & Clore, 2002).

The effect of deliberate emotional processes on self-reported feelings is straightforward, almost tautological. People who tend to elaborate more on their emotional experiences should be more likely to detect and appraise emotional content, and thus report more intense affect (Larsen et al., 1986). We therefore predict a positive correlation between individual differences in deliberate emotional interpretation and self-reported emotions—but acknowledging that other processes could also contribute to this correlation (e.g., a need for self-consistency or impression management).

The prediction for automatic emotional processes is more complex—and interesting. Like in the case of deliberate processes, automatic emotional reactivity should be associated with more intense emotional experiences. However, in the case of automatic processes, another element may play an important role. People are typically asked to report their experienced emotions by selecting a response option on a rating scale (e.g., “Not at all happy” to “Very happy”). Besides being a function of the interpretation of the target, emotional self-reports also depend on the emotionality of the anchoring points of the measurement scale (Ostrom, 1966). All else being equal, intense scale anchors lead respondents to move away from the ends of the scale. For example, individuals should provide lower ratings when reporting a given emotional experience on a rating scale using a more extreme anchor (e.g., “overjoyed” vs. “happy”). Similarly, for the same verbal anchor, people who perceive it as more intense should provide lower ratings of emotionality (De Langhe et al., 2011). Because scale anchors are used only instrumentally to assign ratings, they are unlikely to be elaborated upon. The emotional appraisal of the scale anchors should thus depend mostly on automatic processes. The stronger the automatic emotional reaction toward the scale anchor, the less extreme the rating of emotionality should be, leading to a negative correlation between individual differences in automatic emotional reactivity and self-reported emotions. Which of the two effects—the positive one for target stimuli or the negative one for anchoring points—dominates is an empirical question. However, the latter may be especially strong because of (1) the importance of scale anchor interpretation for self-reported emotions, (2) the temporal contiguity between processing of the scale anchors and the act of rating, and (3) the lack of elaboration on scale anchors.

Five studies provide evidence for our conceptualization. We measured participants’ automatic emotional reactivity with the emotional Stroop task (Compton et al., 2003). In studies 1A and 1B, we also measured individual differences in deliberate emotional interpretation (with the Emotional and Interpersonal Sensitivity Measure, EISM; Bloise & Johnson, 2007). Consistent with our predictions, after exposure to emotional stimuli (sad newspaper stories, 1A; funny pictures, 1B), individuals scoring higher on automatic emotional reactivity reported feeling less emotional, whereas individuals

scoring higher on deliberate emotional reactivity reported feeling more emotional.

In study 2, participants first completed the emotional Stroop task and then, in an ostensibly unrelated study, watched an anti-smoking commercial. Before reporting their emotional experience, about half of participants were asked to “mentally elaborate on what it really means for them to feel {emotion}”. This manipulation substantially reduced the negative correlation between automatic emotional reactivity and self-reported emotionality.

Our final two studies aimed to eliminate or even reverse the negative association between automatic emotional reactivity and self-reports by manipulating the type of response scale. These studies shed further light into the role of scale anchors. As a practical implication, they also provide simple ways to remove the scale anchor effect.

In study 3 we manipulated whether target stimuli were rated using Likert or semantic differential scales. Likert scale anchors (e.g., strongly disagree – strongly agree) are more cognitive in nature and individual differences in automatic emotional reactivity should therefore say less about how scale anchors are interpreted. Likert scales reduced the negative association between individual differences in automatic emotional reactivity and self-reported emotions. In study 4, we presented participants with a sad story and assessed their emotional experiences using an implicit measure of affect (IPANAT, Quirin et al., 2009). We find a positive association between automatic emotional reactivity and an implicit measure of affect.

Consumer researchers often study emotional reactions by asking how people feel. If people report more intense affect, we assume that they experienced more intense affect. Emotional self-reports have been criticized because of low correlations with actual experiences (e.g., due to socially desirable responding, Paulhus 1991). We highlight a different issue. Greater automatic emotional reactivity leads to lower ratings of emotional intensity on semantic differential scales, implying a *negative* correlation between reported and actual emotional experiences.

For more information, contact: dfernandes@rsm.nl

How Sadness Signals Danger in Indulgent Goal-Pursuit

Anthony Salerno, University of Miami, USA*

Juliano Laran, University of Miami, USA

Chris Janiszewski, University of Florida, USA

Researchers have long been interested in determining what factors lead a consumer to purchase either an indulgent or virtuous product. We now know that environmental cues can activate a willingness to indulge (Chartrand et al. 2008; Geyskens et al. 2008), and that negative emotions can encourage indulgent consumption as a means of emotion regulation (Garg, Wansink, and Inman 2007; Gross 1998). However, less is known about the instances in which these factors might interact with one another and possibly lead consumers away from indulgence and towards virtuous consumption.

Our current research investigates one potential combination of environmental cue and emotion-based combinations. More specifically, we find that a consumer experiencing a willingness to indulge, activated by environmental cues, and sadness leads to the effect of increased virtuous consumption. We find that this effect occurs because sadness serves as an informational function to consumers' goal-directed behaviors. Where an indulgent cue would normally signal to indulge, we find that sadness signals that there is a risk of overindulgence and a lack of self-regulation. This perceived overflow of indulgence creates an unconscious sense of danger to consumers' ability to self-regulate, leading to the

seeking of protection in the form of virtuous consumption.

In study 1, we tested our proposed effect and found that virtuous consumption only occurs when an indulgence prime is combined with sadness and not other negative emotions such as anger. Participants were randomly assigned into either an indulgence or neutral prime in combination with the induction of either anger or sadness. The priming task had participants unscramble sentences, where each sentence contained one word that was related to either indulgence or a neutral construct. Then participants read and responded to a hypothetical scenario that either evoked anger or sadness. Lastly, participants completed a purportedly unrelated food preference task. In this task, participants rated the desirability of 20 equally liked foods, half of which were perceived as healthy and the other half as tasty but unhealthy. In the neutral prime groups, angry and sad participants were both significantly more likely to prefer tasty food over healthy food, a finding consistent with emotion regulation research (Andrade and Cohen 2007). More importantly, within the indulgence prime, we found that only participants experiencing sadness were significantly more likely to prefer healthy over tasty foods, showing that other emotions do not trigger the same sense of danger towards overindulgence that sadness does. Additionally, the increased preference for healthy foods shows that this indulgence and sadness effect does not lead to the failure to pursue any goal-directed behavior (Fishbach and Labroo 2007).

In study 2, we established process evidence and found that the virtuous consumption observed within the indulgence and sadness combination is driven by an unconscious sense of danger towards overindulgence. We also tested whether this sense of danger is specific to cues that signal to indulge or if it applies to other environmental cues such as exercising self-control. If the threat of overindulgence is also present with cues signaling self-control, this should lead to increased danger-related cognitions and decreased indulgent consumption. Study 2 used the same sentence unscrambling task as study 1 to create indulgence, self-control, or neutral priming groups in combination with the induction of no emotion or sadness. Mediation was assessed using a scrambled word task previously shown to be an implicit measure of mental construct accessibility (Arndt et al. 2007). Participants solved 25 incomplete words in total (e.g., “w_r_”, for which the solution is “word”). While the majority of the words represented neutral constructs, six words had the potential to be either neutral or danger-related constructs (e.g., “_ an _er” for which the solution is “banter” or “danger”). Participants completed the same food preference task from study 1. While both self-control and indulgence priming groups experiencing sadness displayed an increased desirability for healthy foods, only the indulgence and sadness condition constructed a significantly greater number of danger-related words and indicated a significantly lower preference for tasty foods.

In study 3, we investigated whether or not the sense of danger observed within the indulgence and sadness combination becomes stronger as the cues to indulge increase. Research in the area of priming and goal pursuit has shown that stronger priming effects can lead to stronger motivated behavior (Dijksterhuis and van Knippenberg 1998). Using the same manipulations from study 2, participants were assigned to either a neutral, indulgence, or strong indulgence prime and then induced to feel sadness or no emotion. The strong indulgence prime required that participants completed an additional task of viewing pictures of hedonic foods and clicking on the foods they liked most (Geyskens et al. 2008). Participants were then asked to choose between two gift card options, one being a virtuous “grocery store gift card” and the other being an indulgent “trendy restaurant gift card”. We found evidence of an amplified indulgence prime, where participants in the no emotion groups were more likely to select the trendy restaurant as the indulgence prime became stronger. More importantly, we found that the people experiencing sadness in these same indulgence primes were significantly more likely to choose the virtuous grocery store as the indulgence cues became stronger.

This research builds on existing work on goal-pursuit and emotion, showing that indulgent environmental cues and negative emotions do not always lead to hedonic consumption. Our results also show that sadness may be used as an information source for pre-existing goal states rather than a signal to emotion regulate. Taken together, this research

provides new insight (1) to marketers, where the effectiveness of an ad could depend on the consumers' current emotional state, (2) to consumers, where feeling sad is not always maladaptive but can potentially aid in making healthier choices, and (3) to researchers, where future work on other goal-emotion combinations can help to more fully understand consumer decision-making.

For more information, contact: a.salerno@miami.edu

2.5 Individual Papers: What a Wonderful World: Knowledge, Attitudes, and Beliefs

Room: Cottonwood

Chair: Meng-Hua Hsieh, University of Washington, USA

Subjective Knowledge and Consumer Financial Education

Liat Hadar, IDC Herzliya, Israel*

Sanjay Sood, UCLA, USA

Craig Fox, UCLA, USA

Many of the most important decisions consumers make involve financial products. Unfortunately, a growing body of research suggests that many consumers lack the financial literacy to adequately evaluate and choose wisely among these products. Recognizing this problem, governments, employers, and financial institutions have turned to various forms of financial education, based on the premise that increasing consumers' objective knowledge about available options will generally increase their tendency to choose wisely, a premise that has received ample empirical support in a variety of consumer choice contexts. However, evidence concerning the effectiveness of financial education is mixed.

We assert that financial education programs fail because they focus almost exclusively on enhancing objective knowledge (OK) and overlook the subjective experience of financial decision makers. We explore the role of *subjective knowledge* (SK), the perceived level of knowing, in financial consumer choice. We propose that holding OK or information about financial products constant, consumers feel more comfortable making investment decisions as they feel more knowledgeable about relevant financial instruments. We provide empirical support for the impact of SK on financial decisions in three studies that manipulate the extent to which one feels knowledgeable while holding relevant OK or information constant. We suggest that attempts to provide consumers with relevant product information may enhance their OK while paradoxically diminishing their level of SK. Thus, such well-meaning efforts can actually deter consumers from choosing more speculative or complex financial products that may better suit their needs.

Study 1 asked participants to make two choices, each choice was between a safe investment option offering a constant rate of return and a risky investment option offering a variable return. We manipulated SK through manipulating the amount of information about the choice options provided in second (target) choice relative to the information provided about the choice options in the first (reference) choice. Although all participants received the same amount of information on the choice options of the *second* decision, this information was perceived by half the participants to be relatively extensive (high-SK condition), as it was greater than the information received on the investment options of the *first* choice, and relatively limited by half the participants (low-SK condition) who received more information on the *first* choice options. We expected that participants in the high-SK condition would feel more knowledgeable about the second choice options (because, by comparison, they received more information about them), and would thus be more likely to choose the risky option, compared to participants in the low-SK condition. As predicted, comparing the

proportion of risky choice in the second decision, high-SK participants were more likely to choose the risky investment option compared to low-SK participants (62% vs. 0%, respectively).

Study 2 examined the impact of SK on willingness to join retirement saving plans and included a direct measure of SK. 200 participants were provided brief information on 401(k) retirement saving plans and were asked to rate their knowledge of those plans and to indicate how likely they were to join them. After reading the information about the plans but before rating their knowledge and likelihood of joining, participants were asked a question, supposedly designed to evaluate their financial knowledge. Half the participants were presented with an easy question and half were presented with a difficult question. The results indicated that participants who were asked a *difficult* question rated their knowledge on 401(k) plans lower, and were less likely to sign up for it, compared to participants who were asked an easy question. Moreover, SK ratings mediated participants' likelihood of joining 401(k) plans.

Study 3 contrasted the effects of OK and SK on choice of Retirement Date Funds (RDFs), and examined more directly the impact of consumer education. We provided summary fund descriptions, a prevalent financial education method, on two RDFs. Specifically, participants were asked to choose between two RDFs that gradually shift from a stock-heavy portfolio to a bond-heavy portfolio over the course of one's working life. For each participant one fund was described in basic terms that include its most important elements; the other fund was described in a more advanced terms, elaborating information in a more technical and jargon-laden manner. Additionally, the risk level of one fund was higher than that of the other fund (i.e., the relative of investment in stocks versus bonds). We hypothesized that providing advanced and more technical information concerning an option would diminish consumers' SK and deter them from choosing it, regardless of the risk level of the fund. We found that participants were less likely to choose a fund that was described in advanced terms, although they were provided with more information about it, and that this effect was mediated by the degree of self-reported SK about the fund. Moreover, although participants generally preferred the low risk fund, they only did so to the extent that it was described in basic terms. When the low-risk fund was described in advanced terms, participants were more likely to choose the higher risk but more basically described fund. These results support our hypothesis that providing more information on financial products may deter consumers if it undermines their SK.

Taken together, the present studies highlight the relative importance of subjective knowledge and product knowledge or information in financial consumer decisions. The results support our assertion that financial education programs often fail because they emphasize objective knowledge, often at the expense undermining consumers' subjective knowledge. Naturally, we do not propose that financial education programs should be abandoned. Instead, we argue that our findings suggest that financial educators ought to pay special attention to the impact on consumers' subjective feelings of knowledge. If too much information is presented in too technical a format, consumers may be deterred from purchasing the financial product.

For more information, contact: lhadar@idc.ac.il

Do You Believe in Love at First Sight? I Do: The Role of Implicit Self-Theories in Forming and Accessing Attitudes

JaeHwan Kwon, University of Iowa, USA*

Dhananjay Nayakankuppam, University of Iowa, USA*

A consistent finding in the attitude literature is that strong attitudes are products of effortful cognitive elaboration (Petty and Cacioppo 1984; Petty and Wegener 1999). We argue that the link between elaboration and attitude strength could be more complicated.

Dweck, Chiu and Hong (1995) have identified two distinct implicit self-theories—entity vs. incremental theory—and have shown that each theory has a variety of influences on the theory holders' information processing and judgments. People who endorse entity theory (entity theorists) believe that their personal traits (i.e., personality, intelligence, and morality) are fixed, while people who endorse incremental theory (incremental theorists) view their personal traits as malleable. This line of research has found that individuals can extend their implicit self-theories: individuals apply their beliefs in personal traits not only to themselves, but also to other individuals.

We propose that individuals can extend their implicit-self theories, even to products or brands, and that implicit self-theories will affect individuals' attitude formation processes. Specifically, entity theorists will form attitudes toward products or brands more quickly (i.e., with less elaboration), but the strengths associated with the attitudes will be stronger than incremental theorists. That is, depending on implicit self-theories, individuals may form strong attitudes without elaboration.

Study 1: The Relationship Between Implicit Self-Theory and Attitude Formation Time and Attitude Strength

We investigate whether entity theorists take less time than incremental theorists to form attitudes toward brands, and whether the strengths associated with the attitudes formed by entity theorists are stronger than those by incremental theorists. Attitude formation time was measured using Media Lab software while each participant viewed a computer screen showing a print ad for a new brand and indicated his or her attitude on a like-dislike dichotomous scale. After a thirty-minute lag, attitude strength was assessed both by metacognitive measures (direct responses; e.g., "How certain are you about your opinion?") and by attitude accessibility (indirect responses: response latency to express an attitude).

The results support our prediction that an individual's dispositional implicit self-theory orientation affects his/her attitudes, attitude formation time, and attitude strength. The results illustrate that, compared with incremental theorists, entity theorists quickly form attitudes that are congruent with the position of a persuasive message. Further, even though they formed attitudes quickly, they held the attitudes more strongly than incremental theorists.

Study 2: The Causal Impact of Implicit Self-Theory on Attitude Formation Time and Attitude Strength

We validate the causal relationships between implicit self-theory and attitudes. In Study 1, we did not address the question of causality. In Study 2, we manipulate an individual's implicit self-theory orientation using the generalized implicit self-theory manipulation technique (Chiu, Hong, and Dweck, 1997).

The results replicated those of Study 1: entity theory priming reduced the time taken to form attitudes, but increased the strength associated with the attitudes.

Study 3: Cognitive Elaboration—The Difference in Attitude Formation Process Between Entity and Incremental Theorists

Next, we manipulate the argument quality of a persuasive message (strong vs. weak argument) and examine if the level of cognitive elaboration is different between entity and incremental theorists when forming attitudes.

The results support the idea that the strong attitudes formed by entity theorists are not the results of effortful cognitive elaboration. The two-way, implicit self-theory by argument quality interaction on attitude demonstrates that only incremental theorists were affected by argument quality manipulation, whereas entity theorists were not. Incremental

theorists formed more message-congruent attitudes under the strong argument condition and less message-congruent attitudes under the weak argument condition. In contrast, attitudes formed by entity theorists did not differ by argument quality manipulation. These results demonstrate that entity theorists exerted low levels of cognitive elaboration, whereas incremental theorists exerted high levels of elaboration. Nevertheless, attitude strengths of entity theorists were significantly greater than those of incremental theorists. Taken together, although they did not exerted effortful cognitive elaboration when forming attitudes, entity theorists formed stronger attitudes than incremental theorists. These findings contradicts with the prior notion that strong attitude is a product of effortful cognitive elaboration.

Study 4: Is Implicit Self-Theory Correlated with Personal Motivational Factors?

One of the possible accounts for the results of the lower level of elaboration of entity theorists is that implicit self-theory is correlated with other motivational factors, such as the need for cognition (Cacioppo and Petty 1982) or the need to evaluate (Jarvis and Petty 1996).

Stronger attitudes are more likely to be resistant to change (Pomerantz, Chaiken, and Tordesillas, 1995). In this study, attitude change was utilized as a measure of attitude strength. We designed two different consumer reviews on a new 3D-TV (positive vs. negative). Each participant indicated his or her attitude on -4 to 4 semantic scales after reading each review. Then, attitude change (the difference between the two responses on the attitude scales) was measured.

The results show that implicit self-theory still has a significant effect on attitude strength, even after controlling both of the motivation scales. Thus, we argue that differences in attitude strength between entity and incremental theorists are *not* caused by different levels of motivation.

Study 5: What Then Makes Entity Theorists Form Stronger Attitudes than Incremental Theorists?

We prepared four consumer reviews on the 3D-TV (two positive and two negative) and then made four different combinations: positive-to-positive, positive-to-negative, negative-to-positive, and negative-to-negative. Participants read only one of the four combinations.

The results reveal that entity theorists are likely to stick to the attitude formed based on first reviews, and they are not be willing to adjust it after second reviews are provided, while incremental theorists put more weight on second reviews. The purpose of Study 5 was to explore how and why entity theorists form and hold strong attitudes without elaboration. Our results give us an interesting explanation: entity theorists believe that everything is fixed, so that they do not need to adjust their attitudes once formed. As a result, they do not need to process all of the information available; they focus on only the first few pieces of information when forming attitudes, while incremental theorists focus on more recent pieces of information.

Summary

The present study extends our understanding of the effect of implicit self-theory on the attitude formation process. Entity theorists form strong attitudes without effortful cognitive elaboration. Specifically, entity theorists form attitudes more quickly toward products and brands, and they hold these attitudes more strongly than incremental theorists. Our findings contribute to both the implicit self-theory and attitude strength literature.

For more information, contact: jaehwan-kwon@uiowa.edu

Psychological Closure, Abstraction, and Subjective Knowledge

Jae-Eun Namkoong, University of Texas at Austin, USA*

Andrew Gershoff, University of Texas at Austin, USA

What one thinks he knows about a given subject, his subjective knowledge, is distinct from what he *actually* knows about the subject, or his objective knowledge. In fact, a large body of research has shown that consumers are frequently miscalibrated in estimating what they know (Brucks 1985; Park, Mothersbaugh et al. 1994). Errors in knowledge calibration can be potentially costly, because how knowledgeable consumers feel can influence the extent to which they are tuned to others' opinions (Brucks 1985), their motivation to learn new information (Wood and Lynch Jr 2002), and the speed with which they make decisions (Park and Lessig 1981).

Prior work has identified a number of factors that influence overestimation of knowledge including natural passage of time (Barclay and Wellman 1986) and age (Souhay, Isingrini et al. 2000). Miscalibration of knowledge also occurs when the experienced familiarity or accessibility is irrelevant to actual knowledge (Koriat and Levy-Sadot 2001). For consumers, the amount of product-related experience can make them feel especially knowledgeable due to vividness (Park, Mothersbaugh et al. 1994).

The present research contributes to the literature by showing how psychological closure can also influence subjective knowledge. We propose that psychological closure facilitates a cognitive process that creates an abstract representation of a learning experience, leading to increased estimations of subjective knowledge. Psychological closure is defined as "*the sense that a life experience is complete,*" accompanied by the feeling of "*pastness*" (Beike, Adams et al. 2007). Perceiving a past experience as a 'closed chapter' creates a psychological boundary and hence, distance. Research on task completion provides evidence for this notion; Details of completed (vs. interrupted) tasks are remembered less (Zeigarnik 1927) and are perceived to have lasted for shorter period of time (Schiffman and Greist-Bousquet 1992). Psychological distance leads to more abstract representations of events (Trope and Liberman 2003). Closure may also put people into the mode of "wrapping things up," allowing them to walk away from the learning experience with just the gist – a process of abstraction. A recent study discovered that activating an abstract (vs. concrete) mindset increases people's tendency to overestimate their concrete knowledge (Alter, Oppenheimer et al. 2010). Taken together, we predict that closure heightens people's subjective knowledge through the mechanism of abstraction, while leaving actual memory unaltered.

A pilot and three studies supported our theory. In the pilot study, all participants read a booklet that gave them various information about the history and production of cheese. Next, depending on condition, they engaged in a reason-listing task, writing about why the learning experience could be considered either closed or not closed. This manipulation has been used successfully in prior research on closure (Beike and Crone 2008). As predicted, participants in the high (vs. low) closure condition reported feeling "like they had learned a lot from the booklet" ($F(1,46) = 14.131, p < .001$) and thinking that they actually "know a lot more" compared to their peers ($F(1,46) = 4.981, p = .031$). Measures of objective knowledge revealed no difference.

Study 1-3 explored the mechanism of construal by manipulating factors to influence the degree of abstraction. Study 1 was a 2 (Closure: High vs. Low) X 2 (Construal level: Abstract vs. Concrete) between subject design. As in the pilot study, participants read the Cheese Booklet and completed the closure manipulation task. Next, abstract or concrete construal was manipulated with the why-how task as in prior work (Liberman, Trope et al. 2007). Finally, subjective and objective knowledge were measured. As predicted, a significant ClosureXConstrual interaction ($F(1,220) = 4.667, p$

= .032) revealed that high (vs. low) closure led to higher subjective knowledge, but only when participants adopted an abstract (vs. concrete) mindset ($F(1,107) = 4.982, p = .028$). Again, what participants *actually* remembered was the same across conditions. In Study 2, participants read a booklet about DEET (insect repellent ingredient). A new closure manipulation was devised to minimize any demand effects. After finishing reading the DEET booklet, they were either told that the following questions (subjective knowledge measures) were additional/supplementary for wrapping up the completed session (high closure) or a part of the same session (low closure). Before answering the subjective knowledge questions, participants were also told to imagine taking advantage of what they learned when they go on a trip either right now (proximal/concrete condition) or next year (distal/abstract condition). Replicating Study 1, a significant ClosureXConstrual interaction ($F(1, 123) = 4.005, p = .048$) revealed that closure leads to greater subjective knowledge only in the distal (vs. proximal) context ($F(1, 61) = 7.342, p = .009$). Objective knowledge did not explain this effect.

Study 3 sought to expand these results by examining the effect of providing a concrete cue, namely asking specific, concrete questions about the learned material. A mixed 2 between (Closure: High vs. Low) X 2 within (Concrete cue: Yes vs. No) subjects design was used. Participants read the DEET booklet and completed the closure manipulation as in Study 1. Subjective knowledge was measured twice. First as in the prior studies, and then a second time following the concrete cue manipulation, in which participants were given a short quiz that asked about specific, concrete elements in the learning booklet. As predicted, there was a significant interaction between closure and the time of subjective knowledge measurement ($F(1,102) = 5.782, p = .018$). Consistent with prior studies, at T1, the high (vs. low) closure condition showed greater subjective knowledge estimates. After presenting specific concrete cues however (T2), estimates of subjective knowledge were significantly reduced for those in the high closure condition ($t(51) = 2.458, p = .017$), but not in the low closure condition (indicator of accurate calibration at T1).

Our findings highlight the importance of psychological closure in estimates of knowledge. Despite having no greater actual knowledge, closure led to increased subjective estimates of knowledge. We argued that this is due to increased abstract construal. Indeed three different methods of manipulating an increase in concrete thinking for high closure participants reduced their subjective knowledge estimates to be similar to those who had low closure.

For more information, contact: jae-eun.namkoong@phd.mcombs.utexas.edu

"When Being Sure that You Are Unsure Predicts Behavior" Some Ambivalent Attitudes are More Predictive of Behavior than Others

Nico Heuvinck, Ghent University, Belgium*

Iris Vermeir, Ghent University, Belgium

Maggie Geuens, Ghent University, Belgium

Consumers who simultaneously evaluate an attitude object as positive and negative, experience attitudinal ambivalence (Priester and Petty 1996). The ambivalence construct entails two types of reactions: dominant and conflicting reactions which in combination produce a state of subjective ambivalence. Irrespective of the underlying valence, dominant (conflicting) reactions refer to those thoughts and feelings which are greater (fewer) in number (Priester and Petty 1996). When individuals are aware of reactions they have about a product that are conflicting with the majority of their thoughts and feelings (i.e., dominant reactions), these conflicting reactions are called *manifest conflicting reactions* (Priester et al. 2007). When an individual has few or no deliberate conflicting reactions, s/he can still recognize that conflicting information might exist of which s/he is at present unaware. These conflicting reactions are called *anticipated conflicting reactions* (Priester et al. 2007). Building on the underlying type of conflicting reactions, we

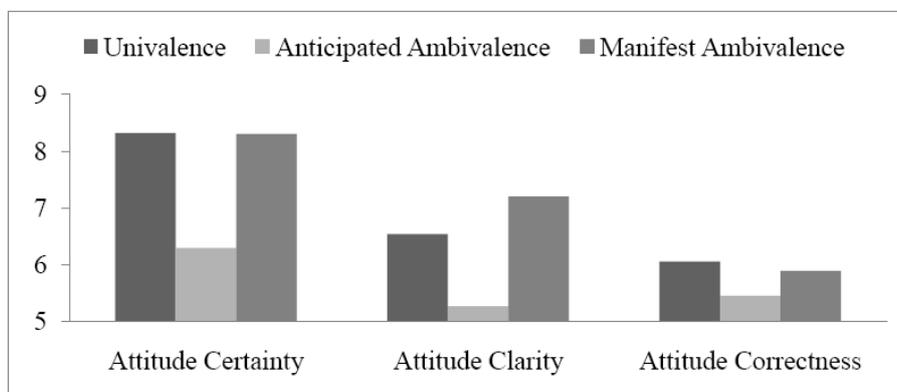
distinguish two different types of subjective ambivalence: *manifest ambivalence* (knowing conflicting information) versus *anticipated ambivalence* (anticipating conflicting information). The objective of this paper is to investigate the impact of these different types of subjective ambivalence on attitude certainty (conceptualized by attitude clarity and attitude correctness) and attitude-intention (-behavior) correspondence.

Ambivalence is generally associated with uncertainty as the conflict between positive and negative reactions attenuates the certainty of holding an attitude (Petrocelli et al. 2007; Petty et al. 2006; Tormala and Rucker 2007). However, we suggest that the attitude uncertainty associated with an ambivalent attitude depends on the type of conflicting reactions that underlie subjective ambivalence. We hypothesize that only when consumers anticipate conflicting reactions (i.e., anticipated ambivalence), they feel uncertain of their ambivalent attitude, but not when they know conflicting information (i.e., manifest ambivalence).

According to Petrocelli et al. (2007), attitude certainty is composed of attitude correctness and attitude clarity. Attitude correctness refers to the extent to which one feels confident that his/her attitude is correct, valid, or justified, and thinks that other people should have the same attitude. Attitude clarity is the extent to which people know what their true attitude toward a topic is and to what extent this attitude is clear to them. We argue that anticipated ambivalent people are less likely to know their true attitude (cf. attitude clarity) toward an object because they anticipate, but do not really know any conflicting information. In contrast, manifest ambivalent individuals are well aware of conflicting information. Therefore, we believe that they perceive their attitude to be clearer compared to anticipated ambivalent individuals. However, concerning attitude correctness, we do not expect any differences between manifest and anticipated ambivalent individuals. Anticipated ambivalent individuals can be as convinced as manifest ambivalent individuals that their attitude is correct/valid given the available information.

In Study 1, level of subjective ambivalence and manifest/anticipated conflicting reactions was manipulated by randomly varying the amount of positive and negative attributes respondents received about an MP3-player and varying the opinion of one’s best friend (cf. Priester et al. 2007). Afterwards, attitude certainty, clarity, and correctness were assessed. Results (see Figure) show that, although experiencing the same extent of subjective ambivalence, anticipated ambivalent attitudes are held with less certainty compared to manifest ambivalent, whereas no difference emerges between manifest ambivalent and univalent attitudes. Moreover, anticipated ambivalent respondents feel that their attitude is less clear as compared to manifest ambivalent and univalent participants, but they feel equally confident that their attitude is correct/valid.

Figure: Attitude certainty, clarity & correctness by type of attitude, Study 1



Several studies have shown that attitudinal ambivalence results in lower attitude-behavior consistency (Armitage and Conner 2000; Conner et al. 2002; Costarelli and Colloca 2007; Thompson et al. 1995). However, Jonas et al. (1997) and

Sengupta and Johar (2002) found that ambivalent attitudes lead to higher attitude-behavior consistency. We argue that the type of conflicting reactions underlying attitudinal ambivalence could help explain these mixed results. People are spontaneously motivated to make sense of inconsistencies in order to arrive at an integrated evaluation (Srull and Wyer 1989). Accordingly, exposure to inconsistencies stimulates information processing, increasing the strength and the predictive ability of the attitude (Jonas et al. 1997; Petty et al. 1995). Since manifest ambivalent people are confronted with positive and negative information, they will probably consider both in an effort to create an integrated judgment that is equally predictive of behavior (i.e., strong attitude). Anticipated ambivalent people are aware of only positive items and merely *anticipate* on negative information. As an outcome, judgments can be expected to be less integrated and hence less predictive of behavior. Moreover, attitudes held with high, rather than low, certainty yield greater attitude-behavior consistency (Rucker and Petty 2004; Tormala et al. 2006; Tormala and Petty 2004a; 2004b; Tormala and Rucker 2007). Hence, manifest ambivalent people are more certain of their attitude (cf. Study 1) and can therefore be expected to also display higher attitude-intention (-behavior) correspondence.

In Study 2 respondents received attributes describing a digital camera (same procedure as in Study 1) which were pretested on their importance level. Next, the same measures as in Study 1 as well as respondents' intention to buy this camera were assessed. Study 2 replicates the results of Study 1. Moreover, we show that attitudes are more predictive of behavioral intentions in the manifest ambivalent and univalent condition compared to the anticipated ambivalent condition.

Study 3 investigated 'real' behavior instead of behavioral intention. College graduates, who were looking for a job, were confronted with a job description (containing positive and/or negative attributes pretested on importance level) provided by a former graduate colleague. Potential applicants could provide their e-mail address if they wanted the organization to contact them about the current job opportunity. This response served as indicator of real behavior (Barber 1998; Highhouse et al. 2003). Results again show that manifest ambivalent and univalent attitudes toward the job were more predictive of behavior compared to anticipated ambivalent attitudes.

Taken together, these findings shed light on the difference of the underlying structure of feelings of ambivalence and how the type of attitudinal ambivalence (manifest versus anticipated) influences attitude certainty and attitude-behavior correspondence. Importantly, they help explain mixed findings from previous literature.

For more information, contact: nico.heuvinck@hogent.be

2.6 Individual Papers: Sunrise, Sunset: Services and Wait Management

Room: Mesquite 2

Chair: Meryl Gardner, University of Delaware, USA

En Route to Subtle and Effective Service Remedy: Strategy and Timing and Emotion Expression

Fang Wan, University of Manitoba, Canada*

Pingping Qiu, Monash University, Australia

Amitava Chattopadhyay, INSEAD, Singapore

L. J. Shrum, University of Texas at San Antonio, USA

When customers have a negative service experience, it is not always caused by a blatant service failure. Sometimes, the social context in which customers are situated such as dining with a friend or dining with a romantic partner can activate important social goals which will guide consumers' experience as well as their evaluations of the overall

service experience. Service transgression in this context tends to be subtle and emotions involved in this context are more passive and social such as embarrassment (*vis-à-vis* anger). Therefore, research is needed in this context to identify ways by which the subtle service transgression can be remedied.

Drawing on research from service failure and recovery, emotion regulation, and interpersonal relationship management, we identified two factors, the recovery strategy and time lag may interactively affect the effectiveness of the server's recovery efforts. For example, Hoffman, Kelley, & Rotalsky (1995) identified direct recovery strategies such as replacement, apology, and correction and indirect recovery strategies such as compensating the customer (e.g., free food and discount) for the service failure. However, no prior research has been conducted to directly compare these strategies in terms of its effectiveness at addressing service failure. Research on emotion regulation suggests that attention deployment is one of the effective ways to regulate negative emotional states (Gross & Thompson, 2007). In a service context, this implies that indirect recovery strategy such as providing a free dessert may direct the attention away from the negative emotional experience (*vis-à-vis* direct strategy such as apologizing or correcting the mistake), which will help regulate the negative emotional experience, and ameliorate the service experience.

However, indirect recovery strategy may be superior to direct recovery strategy for a limited period of time. Research on interpersonal relationship management indicates that directly confronting the conflict, rather than dodging the issue, can be more effective in repairing relationship in the long run (Fletcher & Clark, 2002). Consistent with this notion, we propose that indirect recovery strategy may suppress customers' negative emotional state for only a short while and in a long run, the negative emotion would eventually find an outlet and translate itself into negative service evaluation. In this case, a direct recovery strategy is less effective in remedying the service failure than an indirect one if the service experience is evaluated immediately. However, when the service experience is evaluated after a time lag, direct service recovery is more superior. We conducted three studies to test these propositions.

Study 1. We tested the interaction effect of recovery strategy and the effect of time in changing the perception of the effectiveness of recovery efforts. A 2 (server recovery method: direct vs. indirect) \times 2 (timing: immediate vs. delayed service evaluation) between-subjects experimental design was adopted. We presented a service scenario in which a friendly reminder of a customer's previous unhealthy choice is negatively evaluated if the customer is dining with a date who's a fitness instructor (Wan, Qiu, & Shrum, 2010). Ninety-six undergraduate students participated in the study. Recovery strategy is manipulated by having the server in the scenario either admitting he has mistaken the customer for someone else (direct) or offering a free dessert (indirect). In addition, participants either evaluated service experience immediately after the scenario reading (immediate) or after a 5-minute delay of a filler task (delay).

As expected, 2 (recovery method) \times 2 (timing) ANOVA on service evaluation yielded a significant interaction effect ($F(1, 92) = 7.08, p < .01$) (Figure 1). As expected, when evaluations were made with a 5-minute delay, direct recovery led to more favorable service evaluations ($M = 5.47$) than the indirect recovery ($M = 4.71, F(1, 92) = 5.92, p < .05$). However, when evaluations were made right after the service recovery (short run), although the results were in the expected direction, there was no significant difference between indirect and direct recovery efforts ($M_{\text{indirect}} = 5.34$ vs. $M_{\text{direct}} = 4.80, F < 1$). Similarly, a 2 (recovery method) \times 2 (timing) ANOVA on felt embarrassment indicated that the interaction approached significance ($F(1, 92) = 3.76, p = .06$) (Figure 2). Felt embarrassment in the delayed condition was less intense when the recovery method was direct ($M = 4.44$) than when it was indirect ($M = 5.93; F(1, 92) = 9.14, p < .01$). However, felt embarrassment in the immediate conditions did not differ ($M_{\text{indirect}} = 4.63$ vs. $M_{\text{direct}} = 4.55; F < 1$). Furthermore, mediation analysis showed that embarrassment partially mediates the interaction between recovery method and timing on service evaluation. The effect of the interaction between recovery strategy and timing was reduced when embarrassment was included as a covariate ($\omega^2 = .05; F(1, 91) = 4.82, p < .05$) compared to when it was not ($\omega^2 = .071; F(1, 92) = 7.08, p < .01$).

Overall, the results of Study 1 support our hypotheses that a direct recovery strategy leads to a more positive service experience than an indirect strategy in the delayed condition. We propose that indirect service recovery does not address service failure directly, which cause individuals to ruminate on the problem and making it cumulate negatively over time. Therefore, indirect strategy will backfire in a long run. To test this process, we conducted an experiment with an open-ended question to probe the impact of time on the perception of recovery effects.

Study 2. The experiment was a one factor between-subjects design in which we manipulated the recovery method (direct vs. indirect) under the delayed condition used previously. We asked 62 participants from the same population to provide the same type of evaluations based on the same service scenarios as in Study 1. After reading through the scenario and completing an unrelated task that created the 5-minute delayed condition, participants completed an open-ended question listing all the thoughts they had in their mind. We identified the following themes in both direct and indirect recovery conditions based on the content analysis of the thoughts: distraction (random thoughts), distancing from the immediate emotions (trying to stay positive), and weakened memory of details (remembering the wrong details). However, one theme that is unique in the indirect recovery condition is the escalation of negative emotional experience. For example, “the restaurant scenario was annoying to think back on,” “the more I thought about that service experience, the worse I felt about it.” These qualitative anecdotes suggest that the indirect recovery fails to give the customer a chance to directly face the situation. Thus, we propose that in indirect recovery and delayed condition, individuals’ negative emotion is suppressed which can lead to the worsening of the situation in the long run (consistent with Gross & Levenson, 1993; Harris, 2001).

Study 3. In Study 3, we gave participants opportunities to accept and express those negative emotions. We propose that if suppression of negative emotions is driving the negative evaluations in the indirect recovery and delayed condition, then giving participants a chance to express their feelings should increase service evaluations. The experiment used the indirect recovery scenario and was a one factor between-subjects design (emotion regulation: expression vs. control). Fifty-three participants from the same population completed the study. After the participants read the service scenario, half of them were instructed to accept the feelings that had occurred while they were reading the scenario and express those feelings with words. The other half of the participants were simply asked to write down any thoughts about the scenario. All the participants were given the same amount of time on the emotion regulation questions (expression vs. control) before they start evaluating the service experience. T-test results confirmed our hypothesis that participants in the emotion expression condition evaluated service more positively than those in the control condition ($M_{\text{expression}} = 4.71$ vs. $M_{\text{control}} = 3.87$; $F(1,51) = 4.83$, $p < .05$). Therefore, the indirect service recovery, as it suppresses the customer’s negative emotion, does not produce positive results in the long run.

Overall, we examined the role of recovery strategy (direct vs. indirect) and timing of service evaluation (immediate vs. delayed) and emotion regulation in effective service recovery. Our findings challenged the popular strategy of buying out service failure (indirect approach) by demonstrating that a direct recovery route may benefit the service brand in a long run.

Figure 1. Service Experience

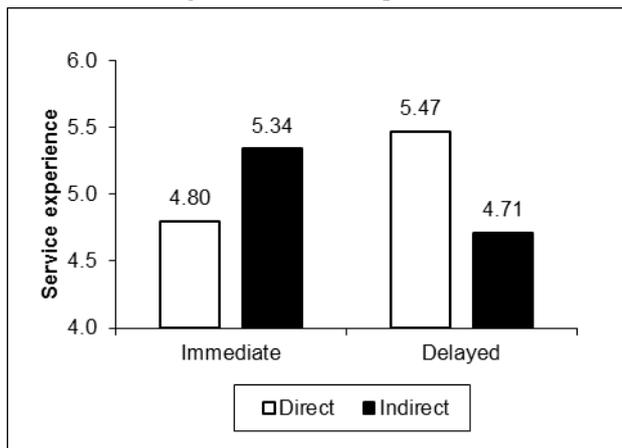
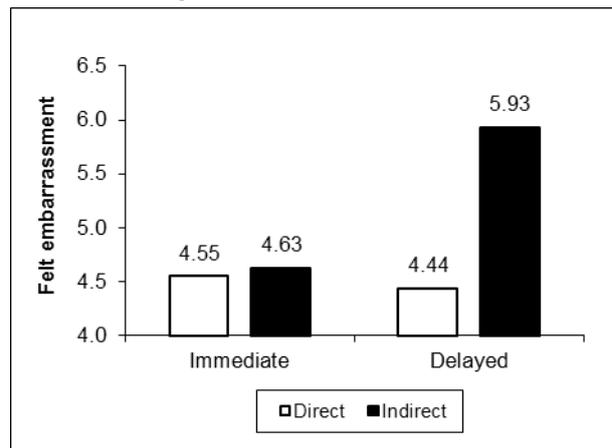


Figure 2. Felt Embarrassment



For more information, contact: wanf@ms.umanitoba.ca

Hate the Wait? Why Customers Who Wait Longer Buy More

Alan D. Cooke, University of Florida, USA

Nira Munichor, Hebrew University of Jerusalem, Israel*

Delays are an abhorred but inescapable element of shopping. Scholars have sought to understand the effects of waiting on consumer reactions, and to find ways to manage waiting with the goal of mitigating negative reactions usually elicited by a wait (e.g., Antonides, Verhoef, & van Aalst, 2002; Carmon, Shanthikerumar, & Carmon, 1995; Dellaert & Kahn, 1999; Maister, 1985; Zhou & Soman, 2003). Surprisingly, however, little research examines how waiting might influence subsequent purchase behavior. Researchers have examined intentions to revisit the store or to spread word-of-mouth about the retailer (e.g., Gorn et al., 2004; Hui, Dube, & Chebat, 1997), but have seldom addressed the effects that waiting may have for actual purchases during the trip (for an exception, see Koo & Fishbach, 2010). Our research is aimed at bridging this gap; it reveals the counterintuitive impact of waiting time on subsequent consumption and purchase behavior.

Waiting time is assumed to have considerable influences on consumer behavior, but the exact nature of those influences is still a puzzle. Available literature portrays contradictory findings with regard to the impact of wait time on consumers (e.g., Hornik, 1984; Hui & Tse, 1996; Munichor & Rafaeli, 2007; Taylor, 1994), which may hint at the complex nature of the effects of wait-time on consumers. On the one hand, consumers typically regard prolonged waits as distasteful, which may result in lower purchase levels. On the other hand, the process of waiting and cognitions about the nature and reasons for the prolonged wait may affect both beliefs about the goods and/or the process by which consumers determine purchase quantities, potentially resulting in a counterintuitive increase in purchases that are made right after the wait (such as those made in counter-service restaurants).

Experiment 1 tested the effect of waiting time on the number of items chosen to be consumed subsequently, using a computer-based consumption task. Participants were asked to evaluate the presentation skills of some speakers based on a series of videos. We asked them to choose which of two types of videos to watch (lectures or stand-up comedy), and then manipulated the amount of time they had to wait before choosing the specific videos to watch. The number of videos chosen served as our primary dependent variable. We found that, although participants perceived a longer wait as more annoying than a shorter wait ($M_{long}=6.09$ vs. $M_{short}=4.88$, $t(75)=2.46$, $p=.016$), they also chose to watch more

videos ($M_{\text{long}}=5.78$ vs. $M_{\text{short}}=4.36$, $t(80)=2.49$, $p=.015$). Thus, when made to wait before a choice, people choose more if made to wait longer. This result occurs despite, or possibly because of the additional frustration resulting from the wait.

Experiment 2 further tested whether people who wait longer choose more because they believe the goods to be more popular and worth waiting for, a social signaling account (e.g., Cialdini, 1982). Participants went through a procedure similar to that used in experiment 1, in which they were asked to wait for media files to be downloaded. Social signaling was manipulated through instructions; participants in the signaling condition were told that their wait time was dependent on other people's choices, whereas participants in the no-signaling condition were told that their wait time was dependent only on the speed of the network. Again, participants perceived a longer wait as more annoying than a shorter wait ($M_{\text{long}}=6.11$ vs. $M_{\text{short}}=5.11$, $F(1,87)=10.96$, $p=.001$). Further, a significant effect of the interaction between time and signaling on the number of chosen items was found ($F(1,91)=7.60$, $p=.007$). When participants were told that their wait time was dependent on other people's choices, they chose more videos following a longer wait than following a shorter wait ($M_{\text{long}}=5.10$ vs. $M_{\text{short}}=3.79$, $t(47)=2.16$, $p=.036$). When participants were told that their wait time was dependent on network connectivity, however, the opposite pattern emerged ($M_{\text{long}}=3.84$ vs. $M_{\text{short}}=5.04$, $t(44)=1.76$, $p=.086$). These results support the hypothesis that social signaling underlies the positive effect of wait time on subsequent consumption amount. When wait time is perceived to be the product of others' preferences, such that a longer wait signals greater product's popularity, people choose to consume more items following a longer, rather than a shorter wait.

Experiment 3 further investigated the moderating role of social signaling using a simulation of a typical shopping environment. In this experiment, following a wait, participants used previously earned money to purchase either food products or school supplies. When participants were told their wait time was dependent on other people's choices, they purchased more items following a longer wait than following a shorter wait ($M_{\text{long}}=3.70$ vs. $M_{\text{short}}=2.57$, $t(41)=2.15$, $p=.037$). When participants were told their wait time was dependent on network connectivity, however, we did not find such a difference ($M_{\text{long}}=2.83$ vs. $M_{\text{short}}=2.73$, $p=.87$). In accordance with the social signaling account, longer waits led participants to purchase more items only when participants believed their wait duration was affected by others' choices.

In summary, the current work shows that longer waits produce *increases* in purchases during the shopping trip when waiting time serves as a social signal about item popularity. This study contributes to the investigation of the effects of waiting on consumer actual behaviors, and sheds light on the psychological mechanisms that underlie these effects. Our results undermine the commonly held view that waiting can only damage firms' bottom lines, and show that some effects of waiting time may take a counterintuitive form. Our findings therefore may carry important implications for the management of queues and waiting, and may also make customers more aware of the non-trivial psychological influences that a wait may exert on their behavior. Our research also contributes to the development of behavioral theory by revealing the direct and indirect relationships between the process of waiting and other common consumer behaviors. Future research will examine the contribution of other mechanisms, such as cognitive dissonance and self-control depletion, to the relationship between waiting and purchase behavior and explore how they interrelate.

For more information, contact: niram@huji.ac.il

Delay and Gratification: How Waiting for Service Can Spur Compensatory Consumption

Yuwei Jiang, Hong Kong Polytechnic University, Hong Kong*

Anirban Mukhopadhyay, HKUST, Hong Kong

Waiting has long been regarded as an important topic in both psychology and marketing (Osuna 1985). What is the effect of waiting on consumption quantities? Much research, as well as common sense, suggests that there should be a negative relationship, if at all, between the two. In this research, we instead propose that *ceteris paribus*, there is actually a positive relationship between waiting and consumption – waiting can lead to an increase in the quantity consumed. Many human actions are accompanied by costs. These costs are commonly financial or time-related, however, we believe they can arise from a variety of sources (e.g., waiting), all of which may contribute to a common “psychological cost”. Psychological costs, once generated, may be compensated by the gains from resources of either the same type or those that are different. Hence, if waiting is considered to be a source of psychological cost, a long wait should lead a consumer to compensate for this cost with an increase in the subsequent consumption (if the product or service being waited for is a desired one).

Psychological costs can be compensated by gains from either the same or from different transactions, this leads to a boundary condition for the effect of waiting on increased consumption. That is, if the cost of waiting is compensated from other sources before the consumption, waiting should not lead to any increase in consumption.

For our psychological cost explanation to hold, it is necessary that the consumption activity delivers a benefit or utility in and of itself. In other words, the consumer should be consuming the product or service for reasons intrinsic to itself. This leads to another boundary condition for our predictions: If the product or service is being bought for reasons that are separable from its “inherent satisfactions”, its consumption will not serve as compensation of the psychological cost.

In what follows, we report four studies that test the above hypotheses. In study 1, we administered a field survey to test our basic hypothesis. This study was conducted on weekend evenings outside a popular restaurant. Customers were surveyed when they exited the restaurant after dinner. Participants were asked to report how much they had spent on that day’s dinner, how long they had to wait outside the restaurant before dinner, their evaluations of the restaurant, along with other demographic information. Regression analyses showed that waiting time did not influence consumers’ attitudes toward the restaurant, but their expenditures on their dinners. The longer consumers had to wait outside the restaurant, the more they spent on their dinners.

To infer causality as well as identify the process underlying the observed effect, study 2 replicated the findings of study 1 using a lab experiment setting. Participants were asked to imagine that they arrived earlier for lunch at a local sushi restaurant, so they have to wait outside for either a short (2 min) or long (60 min) period of time. After the waiting manipulation, participants were presented with a booklet of fifty sushi items, each with a color picture, name, and price. They were asked to indicate order quantities for each sushi item. The results showed that participants in the long wait condition ordered more food items, and spent more on lunch than those in the short wait condition. In support of our predictions, mediation analyses confirmed that the psychological cost from the waiting experience was the driving force behind the increased consumption and expenditure.

We use study 3 to test the proposed moderating role of windfall compensation. This study employed a 2 (waiting time: short vs. long) \times 3 (windfall compensation: coupon vs. discount vs. no windfall control) between-subjects design. After the same manipulation of waiting as in study 2, participants were told that when they entered the restaurant after the wait, the manager approached them and informed them that it was the 10th anniversary of the opening of the restaurant, and gave them a US\$7 cash coupon (coupon condition) or a 50% discount off of that day’s lunch (discount condition) or nothing (control condition). We found that windfall compensation, when incurred after a long wait, served to decrease rather than increase the amounts of consumption and expenditure. When windfall compensation was given before the consumption, the effect of waiting on consumption disappeared.

Study 4 tests another boundary condition by investigating the purchase of products motivated by intrinsic versus extrinsic factors. We employed a 2 (waiting time: short vs. long) \times 2 (motivation: intrinsic vs. extrinsic) between-subjects design. The waiting conditions were manipulated by asking participants to imagine that their flight was delayed due to bad weather. Participants were then told that during the flight, there was a special promotion on two duty free gifts, a keychain and a pen. All participants were asked to imagine that they decided to buy the pen. In the intrinsic motivation condition, participants were told that although their friend really liked the keychain, they preferred to buy the pen. In the extrinsic motivation condition, participants imagined that they decided to buy the pen because their friend really liked the pen. Participants were then told the price of the pen and asked to indicate how many pens they wanted to buy. Consistent with our hypothesis, when purchasing the product based on intrinsic motivation, participants in the long delay condition purchased more than those after in the short delay condition. However, when purchasing the product based on extrinsic motivation, purchase quantity was not influenced by the length of flight delay.

Across four studies we find that, contrary to their own lay beliefs, consumers tend to consume and spend more if they have had to wait. The current research provides important contribution to the literature on waiting and consumer behavior, and retailing promotion methods. Our findings suggest that companies may be able to use the consumer experience of waiting for product/service as an effective marketing tool, but with caution.

For more information, contact: msjiang@polyu.edu.hk

Effects of Depleting Regulatory Resources on Consumer Choices

Sieyeon Song, Korea Consumer Agency, Korea*

Jongwon Park, Korea University, Korea

Consumers often encounter a choice between a highly desirable but less feasible alternative and a less desirable but highly feasible alternative, for example, a choice between a highly effective but difficult-to-use computer graphic software and a less effective but easy-to-use software. The literature shows that individuals' construal level (Trope & Liberman, 2003, 2010) is an important determinant of the choice. In this research, we propose availability of self regulatory resources as another important determinant. Although depleting the resource has been shown to have an influence on self control behaviors, particularly on choices between vice and virtue in consumer domain, it has not been considered in the choice context of our concern in the present research.

Based on theory and research on regulatory resource depletion (Baumeister, 2003) and construal level theory (Trope & Liberman, 2010), we propose that depleting individuals' regulatory resource induces them to attach a greater importance to feasibility-related attributes (vs. desirability-related attributes). As a result, resource depletion would increase consumers' choice of a high-feasibility alternative (vs. a high-desirability alternative). In addition, this effect would occur regardless of whether feasibility is operationalized based on physical ease, cognitive ease, material ease, or probability, and would occur regardless of whether the feasibility attribute is framed positively or negatively. Finally, we test implications of our assumption concerning the effect of resource depletion on the importance attached to feasibility vs. desirability dimension in the context of attraction effects, and show that resource depletion can either increase or decrease the attraction effect, depending on the attribute configurations in the choice set.

Experiments

Five experiments confirmed our proposition that resource depletion increases the importance attached to the

feasibility-related attributes and thus increases the choice share of the high-feasibility alternative relative to the high-desirability alternative. A total of 63 students participated in experiment 1, 159 in experiments 2a and 2b, 120 in experiment 3, and 234 in experiment 4. In all experiments, participants' regulatory resource was either depleted or not and then they participated in a choice study.

In experiment 1, participants were first given a page from a highly technical article. Then, they were asked either to simply cross off every single "e" with no further rules (no-depletion condition) or to cross off all instances of "e" but to only cross off an e if it was not adjacent to another vowel or one extra letter away from another vowel (thus, one would not cross off the e in vowel; resource-depletion condition). After this, all participants were asked to participate in an ostensibly unrelated, "consumer choice" study in which they were given three sets of product choice tasks (movie choice, eye contact lens choice, and restaurant choice).

Each choice set consisted of one "desirability-positive" alternative and one "feasibility-positive" alternative: (1st ranked movie but 30 minute waiting at ticketing line vs. 3rd ranked movie but 5 minute waiting); (high-quality lens but difficult to use vs. moderate-quality lens but easy to use); (highly fresh food but 20 minute away vs. moderately fresh food but 5 minute away).

As expected, participants in resource-depletion conditions, compared to those in no-depletion conditions, were more likely to choose the high-feasibility alternative (.67 vs. .37 in movie choice; .83 vs. .48 in lens choice; .70 vs. .36 in restaurant choice; all $p < .05$).

Experiments 2a and 2b replicated the results of experiment 1 over different measures (choices and preference ratings) and over different types of feasibility manipulations, i.e., manipulations based on probability (experiment 2a) and monetary cost (i.e., price, experiment 2b). Specifically, the choice set in experiment 2a consisted of a prize of 50 cans of coffee at 1% chance and a prize of 5 cans of coffee at 10% chance. The choice set in experiment 2b consisted of a good-quality lotion for \$39 and an average-quality lotion for \$28.

As expected, participants with resource depletion (vs. those with no-depletion) more frequently chose the high-feasibility alternative (.65 vs. .32 in prize choice; .44 vs. .19 in lotion choice; $p < .005$). Identical results were obtained in the analyses of preference ratings. In addition, participants reported that they attached a greater importance to the feasibility attribute under resource depletion than under no depletion, as consistent with our assumption. On the other hand, note that the desirability attribute was positive in nature (e.g., fresh food) whereas the feasibility attributes were negative in nature (e.g., walking distance). A follow-up study, which described the desirability attribute in a negative frame and the feasibility attribute in a positive frame, replicated the results, suggesting that the resource-depletion effect is not attributable to the participants' tendency to avoid negative attributes under resource depletion, regardless of the attributes are feasibility-related or not.

Experiment 3 provided further evidence for the influence of resource depletion on the importance weights. Some participants received the two movie alternatives employed in experiment 1 (1st ranked movie but 30 minute waiting vs. 3rd ranked movie but 5 minute waiting; *standard-set conditions*). Other participants received a "comparison-set" in which the desirability value of the high-feasibility movie was ever lower (1st ranked movie but 30 minute waiting vs. "5rd" ranked movie but 5 minute waiting time). If our assumption concerning the effect of resource depletion on the importance attached to the feasibility is correct, participants with resource depletion should not be sensitive to this change and thus should choose the high-feasibility alternative frequently and as often as they would if they receive the standard set. By contrast, participants with no depletion should choose the high feasibility alternative even less frequently than they would if they receive the standard set. This in fact was the case. Participants under resource

depletion chose the high-feasibility alternative very frequently regardless of choice sets (.63 vs. .59, $p > .10$), whereas participant under no depletion chose the high-feasibility alternative less frequently in the comparison set than in the standard set (.15 vs. .37, $p < .05$).

Experiment 4 examined an implication of our assumption in the context of attraction effects (Huber et al., 1982; Pocheptsova, et al., 2009). The idea is that although a decoy (which is asymmetrically dominated by a target only) can increase the target's choice share, this "attraction effect" would be more pronounced for individuals under resource depletion if the decoy's inferiority to target exists along feasibility dimension than along desirability dimension, whereas the opposite would be true for individuals with no depletion. To examine this, we created two types of decoys (one whose inferiority to target exists along feasibility and one whose inferiority exists along desirability) and added in the choice set. Analyses of participants' choices of the target (high-feasibility alternative) yielded a significant decoy effect (i.e., a significant *difference* in choice shares of target when the decoy was added and when it was not, $p < .05$). As expected however, this effect was greater when the decoy's inferiority existed along feasibility than along desirability (.43 vs. .23) when participants' resource was depleted, whereas the opposite was true when it was non-depleted (.11 vs. .20). This was confirmed by a significant interaction of resource (depletion vs. non-depletion) and decoy type (inferiority along desirability vs. inferiority along feasibility) ($Wald = 4.96, p < .05$).

Conclusion

Five experiments confirmed our prediction that resource depletion increases participants' choice of the high-feasibility alternative over the high-desirability alternative. This effect is evident regardless of the manipulation of feasibility as physical ease, cognitive ease, material ease, or probability and regardless of the positive vs. negative framing of the feasibility attribute. Further, the effect is due to the influence of resource depletion on the weights attached to the feasibility dimension. To this extent, the effect of a decoy can either increase or decrease, depending on the interaction of regulatory resource and the attribute configurations. Theoretical and managerial implications are discussed.

For more information, contact: amadeus@korea.ac.kr

2.7 Conversations: Time and Money

Room: Mesquite 1

Cassie Mogilner, University of Pennsylvania, USA

Ashwani Monga, University of South Carolina, USA

Manoj Thomas, Cornell University, USA

3.1 Symposium: Of Time, Temperature, Taste, and Touch: Integrating Perspectives on Grounded Cognition

Room: Four Seasons Ballroom 1

Chair: Y. Charles Zhang, University of Michigan, USA

Past to the Left, Future to the Right: How does Thinking about Time Affect Choice

Y. Charles Zhang, University of Michigan, USA*

Norbert Schwarz, University of Michigan, USA

As research in embodied cognition indicates, abstract concepts, such as time, are understood and structured through metaphorical mappings from more concrete and experiential domains, such as space (Clark, 1973; Lakoff and Johnson, 1980). Across languages people use spatial metaphors to talk about time. For example, in English, we say that a technology is “ahead of its time”, or that a project is “far behind schedule”. Using spatial metaphors to describe time enforces associations between the two domains and imports relational structures from space to time. In fact, recent evidence suggests that people do not only talk about time in spatial terms, but they also use their spatial knowledge to think about time. Boroditsky and colleagues (Boroditsky 2000, 2001; Boroditsky, Fuhrman, and McCormick, 2010; Fuhrman and Boroditsky 2010; Santiago et al. 2007) showed that people are able to use information made available by spatial primes to think about time. They further showed that metaphorical mappings between time and space are directional, with the directionality being language specific. For example, English speakers project the past to the left side in space and the future to the right, while Hebrew and Arabic speakers do the opposite. Such directional relations have cognitive and behavioral consequences. For example, people respond to a time related stimulus (e.g., a picture that represents the past) faster when the response format is consistent with their time representation (e.g., hitting a key on the left); they also order cards that represent current, past, and future events accordingly.

The current research provides a first experimental test of whether the directional relation between time and space affects consumer choice. Specifically, we test whether English speakers are more likely to choose items displayed on the left when making a choice pertaining to the past, but displayed on the right when a choice pertaining to the future. We propose and show that when making a choice pertaining to future or past time points, people initially attend to alternatives in the corresponding areas of their visual field, which advantages choice alternatives displayed in the respective area. Finally, this research also speaks directly to a theoretical question about the inferential structure of the spatial-temporal metaphor: whether there is a continuous relation between space and time along the whole mental “time line” or just a dichotomous left-right relation. These issues are addressed in three studies.

In study 1, participants were asked to think about either their last vacation trip, or their next vacation trip. Then, they were shown four pictures of natural sceneries, all printed in color and presented horizontally, covering the width of a letter-size page presented in landscape format. The order of pictures was counterbalanced and participants were asked to choose the picture that best captures how they feel about their past/future vacation trip. By coding the picture locations as 1, 2, 3, and 4 (from left to right), ordinal regression shows that, on average, the pictures chosen to describe a past vacation are .55 units to the left of pictures chosen to describe a future vacation, independent of the actual content of the pictures. This result also suggests that the reconstruction of past events and the imagination of future ones may be disproportionately influenced by cues that appear in different areas of the visual field.

Study 2 replicates study 1 in a product choice context. Participants were asked to report the approximate date of their last/next vacation. Then, they were shown four photo albums with detailed information, arranged horizontally in color print on letter-sized paper in landscape format. Participants were asked to choose an album for keeping photos from that

past/future trip. Linear regression shows a significant positive relationship between the temporal distance of the reported vacation and the position of the picture chosen. The further the trip is in the past (future), the more participants chose albums displayed on the left (right), independent of the specific features of the albums shown. This result not only demonstrates an influence of the spatial-temporal metaphor on product choice, but also reveals a continuous mapping between time and space, suggesting that the spatial-temporal metaphor works not only on a directional level, but also on a quantitative level.

Study 3 sheds light on how spatial-temporal associations translate into choice. Participants were presented with a list of 10 positive adjectives, arranged horizontally on letter-sized paper in landscape format in counterbalanced order. They were asked to choose the three words from this list that are most vs. least descriptive of what they were like 5 years ago vs. will be like 5 years into the future; this results in a 2 (most vs. least descriptive) x 2 (past vs. future) between-subjects design. Replicating studies 1 and 2, the same words were more likely to be selected as descriptive of one's past self when displayed on the left, but as descriptive of one's future self when displayed on the right. However, when the task was to select words that are not descriptive, this directional influence reversed. This reversal suggests that attention plays a critical role in this process: When thinking about the past (future), participants first attend to the left (right). All words they see are desirable for describing the self, resulting in their acceptance when the task is to select descriptive words, but in their rejection when the task is to select non-descriptive words.

In combination, these studies provide first evidence for metaphorical mapping effects in the visual display of choice alternatives. People think about time in analogy to space and treat time as moving in the direction of writing. In an English language context, this directs attention to the left for the past, but to the right for the future, giving choice alternatives displayed in the respective space an advantage.

For more information, contact: yizi@umich.edu

Warm Or Cool Color? Exploring the Effects of Color on Donation Behavior

Ravi Mehta, University of Illinois, USA*

Boyoun (Grace) Chae, University of British Columbia, Canada

Rui (Juliet) Zhu, University of British Columbia, Canada

Dilip Soman, University of Toronto, Canada

Color is a fundamental aspect of human perception. Every visual stimulus processed by the human perceptual system contains color information (Elliot and Maier 2008). Thus, it is no surprise that extensive research has been done to examine the effects of color on human cognition and behavior, such as test performance (Soldat et al. 1997), creativity (Mehta and Zhu 2009), mate preference (Elliot et al. 2010), and consumer buying processes (Bellizzi et al. 1983). A large portion of this line of research has focused on the differential impacts of warm versus cool colors (e.g., Elliot et al. 2010; Mehta and Zhu 2009). Warm and cool colors are distinguished based on their wavelength (Bellizzi et al. 1983). Longer wavelength colors (e.g., red and yellow) are known as warm colors whereas short wavelength colors (e.g. blue and green) are known as cool colors.

We extend this line of research by examining the effects of warm versus cool colors on prosocial behavior, particularly donation behavior. Building on recent research on embodied cognition, we hypothesize that warm (vs. cool) colors are likely to induce differential feelings of ambient temperature (i.e., warmer vs. cooler), activate warmth (vs. competence) concepts, and subsequently enhance donations in terms of time (vs. money). Theories on embodied cognition suggest that cognitive thoughts are grounded in the same neural systems that govern sensation, perception and action (Barsalou

1999; Connell 2007). Thus, sensory data, such as visual information and physical sensations, is stored together in memory with associated mental concepts or experiences. Once the sensory data is experienced, other related components, such as other physical sensations and the corresponding concepts are likely to be activated as well.

Along this line of arguments, we hypothesize that warm versus cool colors can make people actually feel warmer versus cooler. In daily life, warm colors are usually associated with situations that involve warmer temperatures, such as the sun, fireplace, and tropical areas. Similarly, cool colors are usually associated with situations that involve cooler temperatures, such as ocean and forest. Embodied cognition suggests that sensations that share similar affect states are usually stored together in memory (Barsalou 2008; Connell 2007). Thus, it is possible that exposure to warm (cool) colors would induce warmer (cooler) feelings of ambient temperature.

Next, we posit that these warmer (cooler) physical sensations are likely to activate warmth (competence) related concepts. This is again consistent with theories on embodied cognition which suggests that embodiments, such as physical sensations, are stored together with corresponding semantic concepts in memory, and thus the experience of embodiment can activate the corresponding concept and vice versa (Barsalou et al. 2003). Warmth and competence are the two fundamental dimensions in social judgments through the lens of stereotypes (Aaker et al. 2010; Fiske et al. 2002). For example, rich people are often seen as high in competence whereas the elderly are usually perceived as high in warmth (Fiske et al. 2002). Because abstract concepts are metaphorically based on concrete physical experiences, the feeling of warmer ambient temperature when one is exposed to warm colors might activate warmth-related concepts, such as being a warm and friendly person. Similarly, the feeling of cooler temperature when one is exposed to a cool color will may activate cool concepts, such as being confident and competent (Scherbaum and Shepherd 1987).

Finally, we posit that these alternative concepts (warmth vs. competence) will affect donation behavior differently. If a helping behavior demands more personal warmth or closeness (e.g., spending time with others; Nock and Kingston 1988), the exposure of warm color would enhance such behaviors. However, if a helping behavior demands more competence (e.g., giving money to others; Tang 1992), the exposure of cool color might enhance such behaviors. A series of four studies provide support to our theorizing.

Study 1 demonstrated that a warm (vs. cool or neutral) color led to greater helping behavior when it primarily involves time commitment. Participants completed a computer based study, where the screen background color was used to manipulate color. The color was either warm (yellow) or cool (light blue). The focal task involved having participant imagined three scenarios where they had to help a friend, an acquaintance and a stranger in need and their likelihood to help was measured. Data revealed that those in the warm color condition were more likely to offer help than those in the other conditions. Study 2 demonstrated that when the helping context specifically involved money donation, cool color helped.

Study 3 tested the underlying processes for the above observed effects. The study employed a 2 (color: warm vs. cool) X 2 (nature of donation: money vs. time) between subjects design. Participants were presented with an ad for an NGO seeking help either with volunteering time or donating money. We replicated findings from previous studies, and more importantly demonstrated the process mechanism. Specifically, initial evidence suggests that warm (cool) colors make people feel warmer (cooler) which then activates warmth (competence) perceptions, and consequently prompts people to donate more of their time (money).

The final study was a field experiment. We manipulated color through survey papers. We randomly stopped participants outside of a mall and asked them to indicate their intention to donate to an organization either in terms of money or time. Results replicated our lab study.

For more information, contact: mehtar@illinois.edu

Eat Sweet, See Deceit: Does Gustatory Sweetness Underlie Affective Experience from Smile Perception.

Haotian Zhou, University of Chicago, USA*

Aparna Labroo, University of Toronto, Canada

The ability to recognize genuineness in the facial expressions of another individual is an important aspect of everyday social and consumer functioning, but might this ability be impacted by a person's chronic desire for or momentary consumption of sugar? In the current research we suggest that the gustatory experience of sweetness can satiate a person's desire for sweetness and as a consequence raise the threshold level of what is considered sweet. We further suggest that the detection of sweetness in another person's emotional expressions such as a genuine smile relies on simulating the action which may include muscles involved in the gustatory experience of sweetness. Thus, once a person has been satiated with sweet foods, the person will be less able to detect genuine sweetness in others emotional expressions, because being satiated with sweetness raises the threshold level of what is considered sweet.

Recent research suggests the detection of a genuine smile from fake may rely on the somatosensory simulation of smiles that enables perceivers to experience the meaning of the smile as genuine or non-genuine. The idea is that different facial musculature is involved in expression of different types of emotion, and genuine versus non-genuine smiles involve the activation of different groups of muscles (Frank, Ekman, & Friesen, 1993; Miles & Johnston, 2007). A genuine smile has smoother and more regular facial movements compared to non-genuine smile (Hess & Kleck, 1994). Moreover, simulation of these facial expressions helps perceivers understand how that smile feels and to distinguish a genuine smile from a non-genuine one based on the affective experience produced by simulating it. For example, mimicry helps people distinguish genuine smiles from non genuine ones (Niedenthal et al. 2009). Surakka and Hietanen (1998) additionally found that objectively genuine smiles induced higher pleasurable experience in perceivers than non-genuine smiles. Moreover, restricting a person's ability to mimic the emotional expressions of others by injecting Botox (vs. Restylene) reduces the pleasurable experiences associated with seeing smiling others (Havas et al. 2010). But might the gustatory experience of sweetness also numb these sweet sensations and reduce pleasure associated with genuine smiles, leading people to see such smiles as fake? Two studies investigated this issue.

In Study 1, individual differences of participants in preference for sweetened over non-sweetened options were assessed first in a multi-part survey. Later, participants viewed 20 clips of smiles with 10 portraying objectively genuine smile (a.k.a. Duchenne smile) and 10 portraying objectively non-genuine smile (a.k.a. non-Duchenne smile); and indicated the pleasantness of the affective feeling elicited by each smile. We hypothesized that people with a stronger sweetness preference would rate others' smiles as less pleasant because the sweet sensation produced by simulated smiles is likely to be below their preferred level of sweetness. However, such a relationship, if exists, should hold only when perceivers actually simulate the smiles they see. Given that automatic simulation of smile was greatly attenuated when viewing Non-Duchenne smiles compared to Duchenne ones (Surakka & Hietanen, 1998), we also predicted that the negative relationship between preference for sweetness and pleasant feeling generated by viewing smile would be stronger for Duchenne smiles than Non-Duchenne smile. The results are in supportive of our predictions: for Duchenne smile, a significant negative correlation between sweet preference and pleasant feeling elicited by the smiles emerged; whereas for non-Duchenne smiles, this negative correlation was almost non-existent.

Study 2 was conducted to investigate whether participants' judgment of smile would be affected if their sweet sense were fatigued by ingesting high-sugar content food. Participants were randomly assigned to one of four experimental

conditions. Those in a sweet or a salty condition were asked to eat high-sugar content and high-sodium content snack respectively under the guise of a food tasting task. Those in the sweet thoughts (positive affect) or the neutral affect condition completed an essay task, where they were asked to write about a past episode where they felt lucky or how to use their cellphones to send text message, respectively. After the experimental manipulations, participants in all four groups watched the same 20 videos used in Study 1 and classified each smile as either fake or genuine. The idea is that if sweet sensation is at least part of the affective experience generated by the simulation of other's smile, then it should be possible to attenuate the intensity of affective experience by first adapting the sweet sense. Assuming that affective experience engendered by simulated smile indeed forms the basis for understanding smile (Maringer et al., in press), we predicted that the adaptation of sweet sense would make participants more likely to judge a smile as non-genuine. We also expected the increased likelihood of interpreting a smile as non-genuine after sweet adaptation to be smaller in the cases of Non-Duchenne smiles than Duchenne ones because the former tended to be simulated to a lesser degree than latter. The results support our hypothesis. Specifically, higher proportion of Duchenne smiles were judged as fake in the sweet-snack condition compared to the other three conditions; whereas the proportion of non-Duchenne smiles judged as fake did not differ across the conditions.

Overall, our studies support the idea that sweet sensation might constitute at least part of the affective experience generated by the simulation of perceived smiles and hence play a role in the understanding of others' smiles. It seems that when people describe a smile as sweet, they do taste a tinge of sweetness.

For more information, contact: Haotian.Zhou@chicagobooth.edu

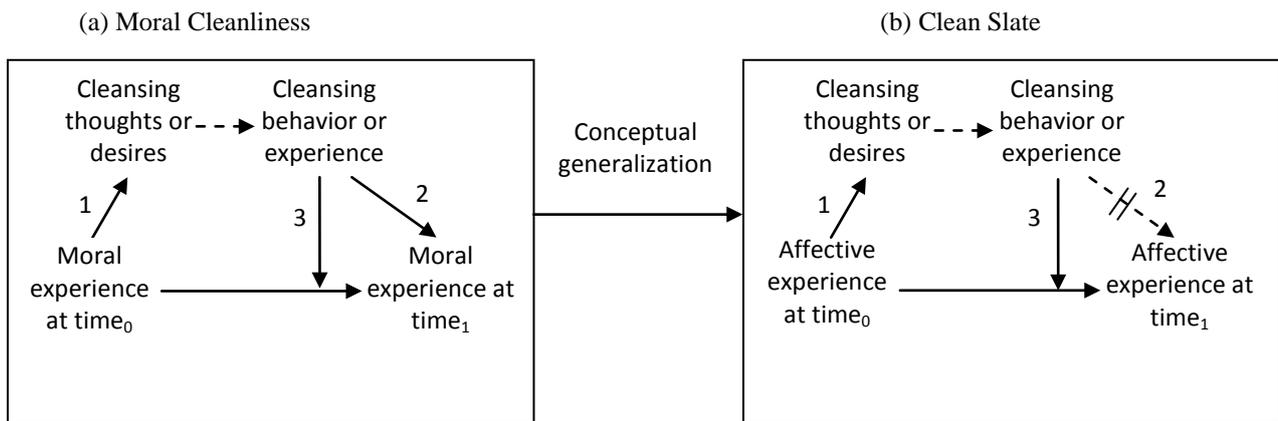
Psychological Consequences of Conceptual Metaphors can be Bidirectional and Generalized: The Case of Physical Cleansing

Spike W. S. Lee, University of Michigan, USA*

Norbert Schwarz, University of Michigan, USA

Conceptual metaphor theory assumes unidirectional influence of bodily experience on thought about psychological constructs. Contrary to this assumption, metaphoric effects of the "moral cleanliness" conceptual metaphor are shown to be bidirectional. Furthermore, recent evidence shows that cleansing removes residual effects of even non-moral experiences, supporting a broader notion of "wiping the slate clean." For example, cleansing removes recent decisional doubt, bad and good luck, the affective impact of past bad relationships and other bad and good events. Bidirectional and generalized "clean-slate" effects challenge conceptual metaphor theory and have implications for consumer behavior motivated by magical beliefs like contagion and fetish.

Figure 1



→ Researchers have tested this path.

- - → Researchers have assumed this path (e.g., Holland, Hendriks, & Aarts, 2005) on the basis that accessible thoughts and goals can unconsciously elicit corresponding behaviors (e.g., Ferguson & Bargh, 2004; Strack & Deutsch, 2004).

Behavioral research on moral cleanliness (Figure 1a) has shown bidirectional effects. Immorality feels dirty and elicits cleansing desires (path 1); conversely, actual cleansing confers a moral feeling (path 2). Supporting path 1, recalled, actual, or vicarious experience of immorality activates thoughts about cleansing (Zhong & Liljenquist, 2006, Study 1) and heightens evaluation (Study 2) and choice (Study 3) of cleaning products. In particular, people have the strongest desire for products that specifically cleanse the body part involved in their immoral behavior (Lee & Schwarz, 2010a). Supporting path 2, environmental cleanliness, imagined cleanliness, or actual cleansing influences moral judgment and behavior. Such influence is context-specific. If the dirty or clean feeling bears on the moral transgression under judgment, then dirtiness makes the transgression more disgusting and condemnable (Schnall, Haidt, Clore, & Jordan, 2008) and cleansing makes it less disgusting and more acceptable (Schnall, Benton, & Harvey, 2008). If the clean feeling bears on one’s self-image, then one behaves more morally (Liljenquist, Zhong, & Galinsky, 2010) and judges others’ morally dirty behavior more harshly (Zhong, Strejcek, & Sivanathan, 2010).

Notably, cleansing can produce a moral feeling either because it invokes the conceptual metaphor linking cleanliness to morality (path 2) or because it produces a state of purity by removing feelings about past immoral experience (path 3). Supporting this latter notion of “washing away your sins,” if people recall their past immoral behavior, subsequent cleansing reduces their guilty feeling and guilt-motivated prosocial behavior (Zhong & Liljenquist, 2006, Study 4). Meanwhile, however, our reanalysis of this study shows that cleansing reduces not just guilt, but every negative emotion measured (disgust, angry, regret, shame, embarrassment, distress), suggesting that cleansing may have more general effects than commonly assumed.

Generalizability: From “Washing Away Your Sins” to “Wiping the Slate Clean”

Things are pure when they start afresh, with a “clean slate,” uncontaminated by past residues. As such, the metaphoric influence of purity may generalize from the moral domain to other affective experiences, suggesting a broader notion of “wiping the slate clean.” This makes specific predictions about the generalization of the three paths (Figure 1b).

The notion of “wiping the slate clean,” or cleaning off past residues, is represented by path 3: Cleansing should remove the impact of past affective experience on subsequent experience. Suggestively, cleansing removes a variety of negative

residues, from guilt and negative emotions (Zhong & Liljenquist, 2006, Study 4) to post-decisional dissonance (Lee & Schwarz, 2010b) to bad luck (Xu, Schwarz, & Zwick, 2011). In direct tests of cleansing effects on affective experience, we found that after recalling an infuriating event in the past, using an antiseptic wipe (rather than simply examining it) improves mood. Furthermore, if cleansing removes past residues in general, then both negative and positive residues may be wiped off. Following this logic, when people have been on a winning streak in a betting game, cleansing reduces their subsequent bet amount, presumably because it washes away their good luck (Xu et al., 2011). We also found that after recalling positive events in the past, using an antiseptic wipe lowers current life satisfaction.

As cleansing can reduce the impact of past affective experience (path 3), affective experience may in turn influence cleansing-related thoughts or desires (path 1): When bad things happen, people may want to cleanse. Empirically, indeed, recalling a bad relationship in the past (rather than a good relationship) increases the desirability of cleaning products, but not non-cleaning products.

Finally, if clean-slate effects result from the generalized notion of residue removal, then researchers must know or manipulate subjects' affective experience (as in paths 1 and 3) in order to make specific predictions. Without knowing or manipulating subjects' prior experience, cleansing effects on their subsequent affective experience cannot be predicted (path 2) because subjects with negative experience should feel better after cleansing but subjects with positive experience should feel worse. Therefore, simply being in a clean environment has no significant influence on positive or negative affect (Liljenquist, Zhong, & Galinsky, 2010, Study 2).

Implications

Psychological consequences of the "moral cleanliness" metaphor are bidirectional and generalizable. Bidirectionality challenges conceptual metaphor theory's strong unidirectional assumption but supports the grounded cognition and neural reuse perspectives on metaphoric knowledge. Beyond morality, cleansing removes past residues of all kinds, from dissonance to luck to the affective impact of past relationships and events. Notably, actual cleansing produces these effects; simply priming cleanliness does not. Both undesirable and desirable residues can be washed away, implying that metaphoric influence is not limited to motivated use. It also suggests that cleansing may remove other residues based on magical beliefs such as contagion of undesirable residues (e.g., Morales & Fitzsimons, 2007) and fetish of objects with desirable residues (e.g., Newman, Diesendruck, & Bloom, 2011). So far, all cleansing studies involve some moral, affective, or magical experience. Can other residues such as memory be washed away? Are residues of the distant past harder to remove than residues of the recent past? Examining what psychological residues can and cannot be removed by cleansing products will shed light on the boundary conditions and possible mechanisms of the burgeoning variety of metaphoric influences.

For more information, contact: spikelee@umich.edu

3.2 Individual Papers: You're a Mean One, Mr. Grinch: Prosociality

Room: Four Seasons Ballroom 2

Chair: Sekar Raju, Iowa State University, USA

It Just Isn't Fair: How Feelings of Empathy and Assessments of Justice Contribute to Prosocial Actions

Robert Madrigal, University of Oregon, USA*

Johnny Chen, University of Southern Maine, USA*

A number of recent studies have shown that empathy is positively related to prosocial action (Fisher, Vandenbosch, & Anita, 2008; Hung & Wyer, 2009; Small & Verrochi, 2009). However, a premise largely overlooked is that such actions may also be affected by subjective assessments of what is morally just or fair. The lack of attention to a justice motive is noteworthy because appeals for prosocial actions often frame empathic distress in terms of a perceived moral violation. For example, in its advocacy for a public health insurance option, MoveOn.org produced ads contrasting the victims of foreclosure due to rising medical costs with the concurrent record profits reported by health insurance companies.

According to Hoffman (2000), the key feature of an empathic response is “the involvement of psychological processes that make a person have feelings that are more congruent with another’s situation than with his own situation” (p. 30). Although empathy often produces the same feeling in the observer and other, it doesn’t necessarily have to. As such, empathy is less of an emotion than it is an emotional capacity (Lazarus, 1991). Empathy makes it possible for an observer to experience empathic emotions (Hoffman, 2000). For example just as transgressions against one’s self elicit personal anger, watching a cared-for other treated badly evokes empathic anger.

Whereas empathy is concerned with an emotional connection to another, justice elicits a motivation to uphold a moral principle. That is, the emotional distress felt when observing an injustice is the result of a principled judgment that a moral standard related to fairness has been violated, and it is this perceived injustice that motivates actions aimed at reducing the distress. The current research distinguishes between the affective response arising from a justice violation and the cognitive appraisal that a moral standard has been violated – what we refer to as a perceived injustice. The former refers to a type of anger that has commonly been labeled moral outrage (Batson, Chao, & Givens, 2009; Batson, et al., 2007), while the latter is conceptualized as “a principled judgment made using abstract criteria of justice” (Blader & Tyler, 2002, p. 228).

Empathy and justice share a common behavioral impulse, a desire to help. However, little is known about how each contributes to helping intentions or their interrelationship. The current research tests three alternative hypothetical sequences pertaining to the functioning of empathy and justice in predicting prosocial actions (see figure 1). As outlined in Model 1 (perceived injustice as mediator), Hoffman (2000) proposed a sequence in which empathic distress gives rise to empathic anger when a cared-for other is treated badly. Moreover, he argued that when the source of the transgression violates a moral principle that it becomes a “hot cognition” that is emotionally charged by empathic anger.

An alternate sequence is outlined in Model 2 (anger as mediator), which conceptualizes the moral violation as an appraisal that contributes to feelings of anger. Batson and his colleagues (2009, 2007) referred to this type of anger as moral outrage. Thus, in contrast to the directionality hypothesized in Model 1, an alternative sequence is one in which perceived injustice and empathic distress indirectly affect prosocial actions through anger. A final hierarchy, Model 3 (empathic distress as mediator), was inspired by Bagozzi and Moore (1994) who found that empathy mediated the direct effect of anger on helping. Although not explicitly measured, the context used to generate negative emotions in their study was child abuse PSA, a clear violation of a moral standard. Thus, perceived injustice was hypothesized as being antecedent to anger and empathy in the empathy-as-mediator model illustrated in Model 3.

Overview of Study Methods

In studies 1 and 2, an identifiable victim paradigm was used to manipulate empathic distress. Respondents were shown an online ad (study 1, N = 196) or a news release (study 2, N = 186) advocating on behalf of a social issue (taxes for a children’s statewide medical insurance, study 1; advances in crop yield management that was being blocked by special interests, study 2). The stimulus described either how one child was affected by the issue (identifiable victim) or described the magnitude of the issue using a statistical argument. In study 3, 15 pairs of public service announcements

were shown. Each pair featured a low and high-empathy PSA (based on a pretest) created by the same organization. Each respondent provided data for five pairs of ads. In addition, data for each substantive construct in the analysis were collected from separate samples and aggregated as mean scores in the analysis. Consequently, the unit of analysis was the PSA ($N = 30$).

Across studies, multi-item measures for each construct shown in figure 1 were used and all demonstrated adequate reliability (all alphas $> .80$) and discriminant validity. Models were tested using structural equation modeling. In addition, parameter estimates in each study were determined on the basis of 5000 bootstrapped resamples. An independence model was also specified for comparative purposes in which the uncorrelated predictors of empathy, perceived injustice, and anger were each related to the two correlated criterion variables. This model implies that each predictor has a direct effect on each dependent variable and that no underlying hierarchical among constructs exists.

Summary of Findings

The results shown in table 1 indicate that the independence model fit the data poorly in each of the samples. Model effects are shown in table 2. In each study, the model providing the best fit to the data (i.e., highest p-value, lowest RMSEA and CAIC) was the one in which the effect of empathy on helping intentions was mediated by anger and perceived injustice (Model 1). The model also revealed that anger's effect on helping was fully mediated by perceived injustice. Specifically, greater levels of empathic distress were positively related to anger, which in turn, positively predicted perceived injustice. As perceptions of injustice increased, so too did helping intentions. The superior fit observed for Model 1, in which perceived injustice was consequent to anger, over one in which this sequencing was reversed (Model 2) suggests that the type of anger felt in these studies was empathic in nature (Hoffman 2000) and not moral outrage as defined by Batson et al (2009, 2007).

TABLE 1
Fit Statistics and Variance Accounted For (VAF) in the Dependent Variables by Model Type

		χ^2 ^c	df	p-value	RMSEA	Model CAIC	CFI	SRMR	VAF Action	VAF Donation
Study 1 (N = 196)	Independence model	149.98	79 ^a	< .001	.068	407.38	.97	.14	.19	.08
	Model 1: Perceived injustice as mediator _b	94.18	80	.13	.030	345.31	.99	.052	.25	.11
	Model 2: Anger as mediator	110.25	80	.01	.044	361.38	.99	.083	.15	.07
	Model 3: Empathy as mediator	105.11	80	.03	.040	356.24	.99	.074	.15	.08
Study 2 (N = 186)	Independence model	157.21	80 ^b	< .001	.072	406.24	.97	.15	.33	.09
	Model 1: Perceived injustice as mediator _b	93.60	80	.14	.030	342.63	.99	.044	.37	.10
	Model 2: Anger as mediator	101.46	80	.05	.038	350.49	.99	.057	.31	.06
	Model 3: Empathy as mediator	101.23	80	.06	.038	350.26	.99	.054	.35	.05
Study 3 (N = 30)	Independence model									
	Model 1: Perceived injustice as mediator _b	1.39	3	.71	0.00	54.19	1.00	.038	.61	.45
	Model 2: Anger as mediator	10.49	3	.015	.28	62.82	.93	.076	.53	.42
	Model 3: Empathy as mediator	11.70	3	.01	.29	62.90	.93	.18	.47	.21

a Difference in df between studies 1 and 2 for the independence model is due to the freed covariance between two items on the empathy scale in study 1.

b Preferred model in each study indicated in bold.

c An asymptotic covariance matrix with a Satorra-Bentler scaled chi-square statistic was used to assess fit in studies 1 and 2, whereas the minimum fit function chi-square was used in study 3.

TABLE 2
Maximum Likelihood Estimates (z -scores) for Path Coefficients in Model 1

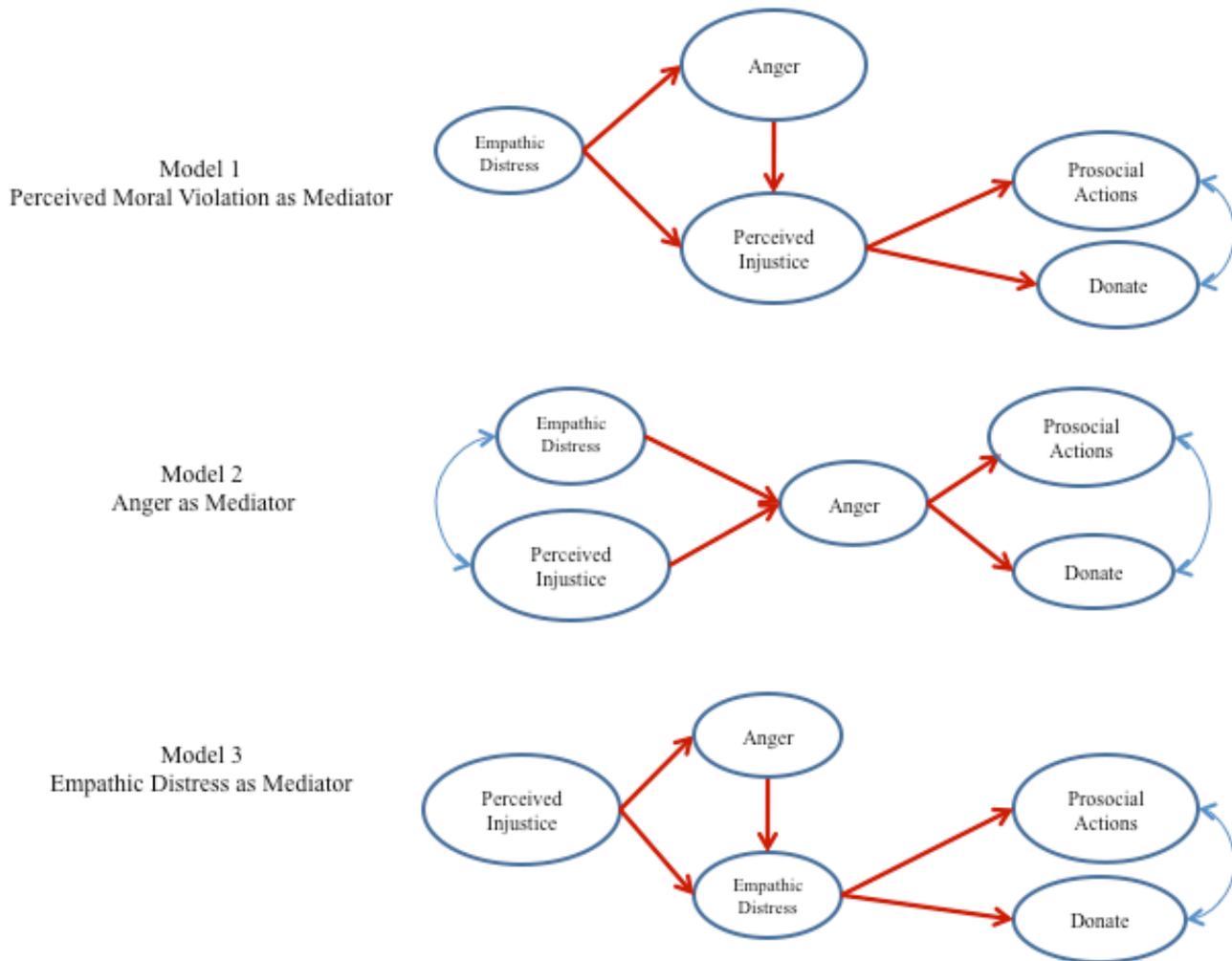
	Path Coefficient	Study 1	Study 2	Study 3
Direct Effects	Empathy manipulation → Empathic distress	-.43 (-2.35)	-.37 (-2.19)	--
	Empathy manipulation → Anger	-.03 (-.16)	-.61 (-2.67)	--
	Empathy manipulation → Perceived injustice	.03 (.26)	-.11 (-.80)	--
	Empathy manipulation → Prosocial actions/urge to help	-.42 (-2.12)	-.30 (-1.57)	--
	Empathy manipulation → Donate ^b	-7.70 (-2.35)	-4.32 (-1.19)	--
	Empathic distress → Anger	.30 (3.80)	.43 (4.13)	.61 (2.20)
	Empathic distress → Perceived injustice	.28 (4.23)	.04 (.68)	.19 (.86)
	Empathic distress → Prosocial actions/Urge to help ^a	--	.46 (4.94)	.27 (2.89)
	Anger → Perceived injustice	.20 (2.86)	.39 (5.54)	1.04 (6.56)
	Perceived injustice → Prosocial actions/Urge to help ^a	.73 (4.70)	.55 (4.30)	.33 (4.25)
Covariances	Justice violation → Donate ^b	7.25 (3.16)	7.01 (3.00)	3.53 (4.67)
	Prosocial actions/Urge to help ^a ↔ Donate ^b	15.62 (6.30)	12.48 (4.71)	1.60 (3.24)
	Empathic distress item 1 ↔ Empathic distress item 3	-.43 (-3.23)	--	--
Indirect Effects	Empathic distress → Anger → Perceived injustice	.09 (2.35)	.19 (3.08)	.36 (2.09)
	Empathic distress → Anger → Perceived injustice → Prosocial actions/Urge to help ^a	.24 (4.39)	.09 (2.89)	.29 (2.27)
	Empathic distress → Anger → Perceived injustice → Donate ^b	.14 (2.82)	.07 (2.33)	.31 (2.29)
	Anger → Perceived injustice → Prosocial actions/Urge to help ^a	.13 (2.78)	.23 (3.80)	.52 (3.63)
	Anger → Perceived injustice → Donate ^b	.07 (2.30)	.18 (2.90)	.57 (3.91)

a In study 3, urge to help replaced prosocial actions.

b In study 3, donation amount replaced donating percentage.

Notes: Two-sided probability values were used to assess direct effects from the empathy manipulation to each construct; covariances, and indirect effects: $z > 3.30, p < .001$; $z > 2.58, p < .01$; $z > 1.96, p < .05$. One-sided probability values were used to assess hypothesized direct effects involving substantive constructs: $z > 3.10, p < .001$; $z > 2.32, p < .01$; $z > 1.65, p < .05$. One-sided arrows indicate a direct effect; two-sided arrows indicate a covariance. The empathy manipulation in studies 2 and 3 is dichotomously coded (1 = statistical appeal, 2 = personal appeal).

FIGURE 1
Hypothesized Competing Models



For more information, contact: rmadriga@uoregon.edu

Corporate Donations to Victims of Disasters: When Contributions Make Sense

- Diogo Hildebrand, City University of New York, USA*
- Yoshiko DeMotta, City University of New York, USA
- Sankar Sen, City University of New York, USA
- Ana Valenzuela, City University of New York, USA

Corporations help with disaster relief in many ways. For instance, after the British Petroleum oil spill on the Gulf of Mexico, several companies provided monetary and nonmonetary contributions such as employee volunteerism and services to help the affected communities. In another example, while the logistics company FedEx donated more than US\$1 million worth of services towards earthquake relief in Haiti, its competitor UPS contributed with about US\$1 million in cash.

Companies’ goals when making such donations are to maximize the benefits to the disaster victims and at the same time earn a return in terms of favorable consumer attitudes and corporate image (Porter and Kramer 2006). However, while

both monetary and nonmonetary contributions help the communities in need, it is unclear which maximizes the returns to the company in terms of favorable consumers' responses.

In corporate social responsibility (CSR) programs, consumers perceive a firm's nonmonetary contributions such as goods, services, and employee volunteerism to be more effortful and involved and thus evaluate such contributions more positively than their monetary counterparts (Ellen et al. 2000). Contrary to this previous finding we contend that consumer reactions to monetary and nonmonetary corporate contributions will depend on factors related to the source of the disaster.

While all disasters negatively affect society, some disasters are perceived as inevitable tragedies of nature (nature-made), while others are perceived as being caused by human practices (human-made). Nature-made hazards include earthquakes and naturally occurring wildfires, while human-made disasters include terrorist attacks, arson, and industrial hazards. In general, nature-made disasters are considered to be less controllable or preventable by their victims than human-made ones (Quarantelli 1993). Importantly, we propose that consumers' perceptions of the controllability of the disaster will have differential effects on their emotions and subsequent evaluations of corporate disaster relief effort. Specifically, when the controllability of a disaster is salient, a seemingly uncontrollable disaster will elicit a more emotional reaction, which activates an emotional mindset (Duckworth et al. 2002). This emotional mindset will then affect the way consumers interpret subsequent information, driving them to perceive a firm's effortful, emotionally involved, nonmonetary help to have a better fit with an uncontrollable disaster. On the contrary, a more controllable disaster will elicit low levels of emotionality, which will lead consumers to process the disaster more rationally and ultimately to assess a more utilitarian, monetary help as having a better fit. In summary, we propose that when the controllability of a disaster is salient, people will evaluate more favorably a company that donates money (services) to the relief of victims from human-made (nature-made) disasters. Additionally, we also propose that consumers' evaluation of the company will be founded on their general perception of fit between the type of contribution and the cause of the disaster.

Five experiments examined our prediction. In our experiments we held the disaster (e.g., avalanche) and resulting casualties constant and manipulated the cause of the disaster (e.g., storm or snowmobilers). We manipulated both the type of disaster and type of contribution within a fictitious news report. In experiments 1 A and 1B we explored consumers' perceptions of different disasters. We show in experiment 1A that people perceive nature-made disasters to be less controllable than human-made disasters. In experiment 1B we use reaction time to emotional and rational words to demonstrate that nature-made (human-made) disasters activate an emotional (rational) mind-set.

In studies 2 and 3 we show how the salience of the controllability of a disaster affects consumers' responses to corporate contributions. We built on Burger and Cooper (1979) to use cultural (study 2) and individual (study 3) proneness to focus on control issues as an operationalization of the salience of the controllability of a disaster. As expected, both studies corroborated our contention that when the controllability of the disaster is salient (i.e., participants have strong tendency to focus on control issues), participants evaluated a firm's contribution of money (service) to a human-made (nature-made) disaster more favorably. Also as predicted, there were no differences in corporate evaluations for participants to whom the controllability of the disaster was not salient (i.e., participants that tend to disregard control related issues). In study 4 we explore further our controllability account by holding the cause of disaster constant and manipulating directly the victims' controllability over the disaster. Specifically, we show that when the controllability of the disaster is made situationally salient for all participants (i.e., we explicitly tell participants how controllable a disaster was), consumers evaluate more favorably companies that make monetary donations to victims of a more controllable man-made disaster and companies that make nonmonetary contributions to victims of a less controllable man-made disaster.

Studies 3 and 4 also provide support for our contention that it is consumers' general perception of fit, i.e., the perceived match between money (service) donations and man-made (nature-made) disaster, the process mechanism underlying the differences in corporate evaluations. A test of indirect effect (Zhao et al. 2010) confirmed that consumers' perception of fit mediates the effect of our manipulations on corporate evaluations.

Our research aims to provide a better understanding of the process underlying consumer evaluations of a firm's disaster relief effort. Research has shown that in order to optimize the effectiveness of CSR programs, a clear fit between a firm's business and the cause it embraces is crucial (Pracejus and Olsen 2004). Our study contributes to the literature by introducing a new dimension of fit, one that relates the cause with the type of contribution and that may be particularly useful to better understand the effects of CSR programs toward non-recurring causes such as disaster relief effort. Another contribution of our research is in its practical implications. Substantial numbers of firms of all sizes around the world frequently respond to help victims and communities affected by disasters such as the earthquake in Haiti and 9/11 terrorist attacks. However, the effects of such corporate philanthropy are largely unknown. We provide an initial suggestion that corporate contribution can be perceived more favorably when the fit between the controllability of disaster and contribution type is maximized.

For more information, contact: diogo.hildebrand@baruch.cuny.edu

Gratitude, Guilt, and Gift-Giving

Cindy Chan, University of Pennsylvania, USA*

Cassie Mogilner, University of Pennsylvania, USA

Leaf Van Boven, University of Colorado Boulder, USA

Gift-giving is highly effective at fostering interpersonal relationships (Belk, Wallendorf, & Sherry, 1989; Ruth, Otnes, & Brunel, 1999), but does the emotion that drives one to give a gift matter? Two emotions that motivate such opportunities to interpersonally connect are gratitude and guilt. These emotions stem from the same set of circumstances—feeling personally indebted. For instance, individuals can feel either guilt or gratitude from a friend taking time out of her busy schedule to help or from one's father making personal sacrifices to raise them, and both emotions would be appropriately acknowledged with a gift. Indeed, gratitude and guilt are recognized as morally adaptive emotions that enhance interpersonal relationships and motivate people to engage in prosocial behavior (Baumeister, Stillwell, & Heatherton, 1994; Grant & Gino, 2010; McCullough, Kilpatrick, Emmons, & Larson, 2001; Tangney, Stuewig, & Mashek, 2007).

In this research, we examine how gratitude and guilt play out in the interpersonally connecting occasion of gift-giving. Do gifts that are given out of gratitude versus guilt differ, and what is the impact on the gift-giver and recipient's relationship? We first examined these questions in the context of an actual gift-giving occasion, Father's Day, by measuring the thoughtfulness of gifts given out of gratitude and guilt and their subsequent impact on the relationships between fathers and their children.

Study 1

Eighty-one fathers and their university student children participated. The study was comprised of two surveys: each father and child pair completed one survey the week before Father's Day and one survey the week after Father's Day.

To assess each father-child relationship before Father's Day, the first survey measured relationship quality (adapted from Algoe, Haidt, & Gable, 2008). Separately, each father and child rated how close and connected they felt toward the other person, how much they liked the other person, how much they felt understood by the other, and how much they felt the other person supported them and their accomplishments. Ratings were averaged to form a pre-Father's Day index of relationship quality. Children were also asked to rate how guilty and how grateful they felt about their father's role in their life.

After Father's Day, the fathers [children] were asked to report whether they had received [given] a Father's Day gift. Those who had taken part in a gift exchange then rated how personal the gift was, how much thought they felt had gone into the gift, and how much effort they felt had gone into the gift, which were averaged to form an index for gift thoughtfulness. Participants also reported the estimated price of the gift, and fathers rated how grateful they felt toward their child for the gift. Finally, all participants again rated the quality of their father-child relationship using the same items from the first survey.

To examine how gifts change relationship quality, we subtracted each participant's pre-Father's Day relationship quality score from their post-Father's Day score; positive scores reflected an improvement in the father-child relationship while negative scores reflected a decline.

Results

Children who felt gratitude and guilt were equally likely to give a gift and spent equal amounts of money on their gifts. However, those who felt more grateful put greater thought into their fathers' gifts, whereas those who felt guilty did not. This finding that guilt did not motivate children to put greater thought into their gifts is unfortunate, because children who reported putting more thought into their gift felt less guilty after Father's Day.

It was the thought, and not the cost of the gift, that showed a positive impact on the father-child relationships. Indeed, fathers who felt that more thought had been put into their gift reported feeling more grateful for the gift. Moreover, they reported the quality of their relationship to have improved.

Study 2

In Study 2, we examined if recipients make inferences about the gift-givers' feelings of guilt and gratitude depending on the gift received, and how these inferences affect relationship quality.

Thirty-one university students recalled a recent gift they had received and indicated how much thought the giver seemed to have put into the gift (using the same three measures as Study 1) and the estimated price. They also reported how much closer and more connected they felt to the gift-giver after receiving the gift. In addition, recipients rated to what extent they thought the gift had been given to them out of feelings of guilt and gratitude.

Results

Recipients who felt that more thought had been put into their gift inferred that the gift-giver felt more grateful and less guilty than those who felt less thought had been put into their gift. More thought was again positively correlated with improvements in relationship closeness after the gift-exchange. Somewhat surprisingly, participants inferred that less expensive gifts were associated with stronger feelings of gratitude on the part of the gift-giver; gift-giver guilt was not

associated with price. Finally, perceptions of more gift-giver gratitude were associated with greater improvements in relationship closeness, whereas perceptions of more guilt were associated with declines in relationship closeness.

Discussion

Gratitude and guilt are both emotions associated with positive interpersonal effects, particularly to those to whom we feel indebted, but this research shows that these emotions are expressed and received differently through gifts. Unlike guilt, expressions of gratitude led to more thought being put into gifts, feelings of gratitude in gift recipients, and a stronger relationship between the gift-giver and recipient.

Although the old adage “it’s the thought that counts” is certainly supported by this research, perhaps “it’s the *feeling* that counts” that gets more to the heart of the matter of gift-giving.

For more information, contact: cich@wharton.upenn.edu

Can Social Responsibility Backfire? The Role of Intentions in Times of Corporate Crisis

Katie Kelting, University of Arkansas, USA*

Adam Duhachek, Indiana University, USA

Durairaj Maheswaran, New York University, USA

The purpose of the current research is to examine the impact of a corporate crisis on consumer perceptions of a firm involved in the crisis. We advance prior research on corporate crises (Brown & Dacin, 1997; Gorn, Jiang & Johar, 2008; Luchs et al., 2010; Palmatier et al., 2009; Sen & Bhattacharya, 2001; Yoon, Gurhan-Canli & Schwarz, 2006) by incorporating the role of counterfactual thinking. Specifically, , we theorize how consumer perceptions of a firm embroiled in a crisis are driven not only by thoughts about what the firm has done wrong but also by thoughts about what the firm could have done differently to prevent the crisis. We theorize that such processing is affected by the intentions that a firm states for actions taken preceding the crisis. In this research, we focus on two different types of intentions that firms state for corporate decisions (socially-motivated versus profit-driven) and find evidence to support the counter-intuitive notion that a socially-motivated as opposed to a profit-driven intention leads consumers to think more about what the firm could have done differently to prevent the crisis and as a result to deem the firm more blameworthy for the crisis. We also identify factors surrounding corporate crises (i.e., outcome of a default event and emotions) that not only amplify the degree of blame that consumers bestow on a firm but also isolate the process through which consumer perceptions of a firm are formed in times of crisis.

In Study 1, 135 undergraduate students participated in a 2 (stated intention for a focal corporate decision: socially-motivated versus profit-driven) x 2 (outcome of the default event: different versus similar) between-subject study for course credit. The study involved participants reading an article about the financial bailout of *General Motors (GM)*. Information about our two factors as well as information about a corporate crisis involving *GM* was communicated to participants via the article. For clarity, we believe that it is important to define the term default event. In the counterfactual thinking literature, a default event is defined as “a highly available counterfactual mutation to the factual event; it is the event that readily comes to mind as an alternative to the factual event that preceded some to-be explained outcome” (Wells & Gavanski 1989, p.162). Notably, the outcome of a default event is commonly used in the counterfactual thinking literature as a way to either accentuate or attenuate the degree of counterfactual thought processing. For example, prior research has shown that more (less) counterfactual thinking occurs when the outcome of a default is different (similar) than that of the actual event. Thus, in Study 1, we posit and show a significant interaction

between stated corporate intentions and the outcome of a default event. Specifically, we find that when consumers read about *GM*'s corporate crisis and learn that a default event existed which would have yielded a different (versus similar) outcome than the actual event, knowledge that *GM* had a socially-motivated as opposed to a profit-driven intention leads to more counterfactual thoughts implicating *GM* and as a result to more negative consumer perceptions of *GM* as well (i.e., mediation supported). Thus, these results support the proposed theorizing.

Next, we garner additional support for our counterfactual thinking perspective by examining the role of emotions, another factor shown to produce counterfactual thinking (Meyers-Levy & Maheswaran, 1992). While a number of negative emotions exist, we focus on the effects of two - anger and sadness - because they are relevant to the context of corporate crises and appraisal theory suggests differential implications for counterfactual thinking. Specifically, anger tends to arise out of an attribution that others are responsible for the situation, whereas sadness tends to be associated with the attribution that events are beyond anyone's control (Han, Lerner & Keltner, 2007). Also, anger (sadness) increases (decreases) the tendency to blame others, as consumers have been shown to direct attributions outward as they attempt to resolve a violation (Maheswaran & Chen, 2006). Thus, we theorize anger (sadness) will accentuate (attenuate) Study 1 effects.

To test this notion, we asked a total of 209 undergraduate students to participate in a 2 (emotion: anger versus sadness) x 2 (stated intention for focal corporate decision: socially-motivated versus profit-driven) x 2 (outcome of the default event: different versus similar) between-subject study for course credit. The procedure was identical to that used in Study 1 except for the following: prior to presenting an article about *GM*, participants in the *anger* (*sadness*) condition were asked to recall an event that made them angry (sad) and to describe their emotions in a personal essay (Maheswaran & Chen, 2006). As expected, we found a significant three-way interaction. Specifically, we find that when consumers feel angry, read information about *GM*'s corporate crisis, and learn that a default event existed which would have yielded a different (versus similar) outcome than the actual event, knowledge that *GM* had a socially-motivated as opposed to a profit-driven intention leads to more negative consumer perceptions of *GM*. Notably, sadness did not exhibit this pattern of results.

This research contributes to the literature on product and service failure, social responsibility, emotions and counterfactual thinking. The findings suggest firms stating socially responsible intentions expose themselves to additional risk once crises occur. This hypothesis differs from predictions made using attribution theory perspectives to corporate crises. This research accounts for this divergence by providing evidence of an additional mechanism through which assessments of blame arise via counterfactual thinking. It also highlights the role of emotions in counterfactual thinking and identifies the theoretical linkages between these important consequences of corporate crises.

For more information, contact: kkelting@walton.uark.edu

3.3 Symposium: The Ghosts of One's Past, Present, and Future: Examining Indulgent Choice Based on Thoughts from Different Temporal Perspectives

Room: Desert Willow

Chair: Hristina Dzhogleva, University of Pittsburgh, USA

Haunts or Helps from the Past: How Does Reflecting on Past Self-Control Acts Affect Current Self-Control?

Hristina Dzhogleva, University of Pittsburgh, USA*

Cait Lamberton, University of Pittsburgh, USA

Kelly Haws, Texas A&M University, USA

Consumers often use their past behavior as a guide for their present behaviors, and extant research suggests that people's past actions are often a good predictor of their future behaviors (Bentler & Speckart, 1981; Ouellette & Wood, 1998). For instance, Albarracín and Wyer (2000) demonstrate that people's perceptions of their past behaviors often influence their decisions to repeat the behavior. Across three studies, we explore how the nature of the recalled acts (past successes or failures at self-regulation) and the subjective ease of retrieval influence present behavior. We demonstrate that different levels of subjective difficulty of retrieval affect consumers' ability to restrain themselves only when they recall past successes but not failures. When considering past failures, consumers tend to indulge no matter how difficult the recall of the past self-control behaviors is. However, when recall of past successes is easy, consumers demonstrate increased self-restraint while difficult recall leads to levels of restraint consistent with that of consumers who reflect on past failures.

We argue that the interplay of the nature of recalled acts and subjective difficulty of retrieval creates different levels of depletion. We demonstrate that consumers are likely to be most depleted by one of two experiences: the recall of failures, whether easy or difficult, or the recall of successes, when doing so is particularly hard for them. The momentary sense of depletion felt by such recall situations is integrated into consumers' self-perceptions, such that these more depleted consumers feel they are worse at self-control and behave accordingly. However, when consumers find that recalling successes is easy, doing so does not create depletion. Therefore, they are able to use the recall of past successes to bolster their own faith in their self-control ability and to restrain themselves in the present.

In our first and second experiment, we find support for the main pattern of effects on self-control in two financial decision-making contexts, using both strong and subtle manipulations as recall cues, and both measuring and manipulating difficulty of recall. The third experiment demonstrates our entire process, particularly highlighting the proximal and distal mediating roles of consumers' depletion and self-perceptions.

In Experiment 1, participants completed a monthly household budgeting task, in which they allocated their total monthly budget of \$2,500 among three categories: necessities, luxuries, and savings. The outcome of interest was the ratio of the amount of money budgeted for luxuries to the amount of money budgeted for necessities (luxuries-necessities ratio). We used a cognitive load manipulation (number memorization task: 7-digit vs. 2-digit number) to create different levels of subjective difficulty of retrieval. Furthermore, participants were randomly asked to retrieve either past self-control successes or failures within the spending domain before completing the budgeting task and while retaining the number in their minds. Our results reveal that when participants reflected on their past self-control successes, those in the difficult recall condition allocated more money to luxuries in comparison to necessities than those in the easy recall condition ($p = 0.01$). In contrast, when participants recalled their past self-control failures, there was no significant difference between subjects in the difficult recall condition) and those in the easy recall condition in their luxuries-to-necessities budget ratio, ($p = 0.96$).

In Experiment 2, we consider consumers' likelihood to contribute to a 401(k) program, after having received a presumably unrelated cue to recall past behaviors in the form of an advertisement. Participants were randomly presented with one of two advertisements with different pictures and headlines designed to cue recall of past self-control failures or successes in the spending domain. The subjective difficulty of retrieval was measured in this study. We find that the difficulty of recalling past self-control successes determines its impact ($p < .01$): when recalling past self-control success is easy, it helps consumers make financial decisions that are likely to contribute to their long-term financial well-being. However, when consumers find recalling self-control successes difficult, they are no more likely to restrain their behavior by saving money than are consumers who recall failures (no matter how difficult the recall of those failures is, $p = 0.49$).

In Experiment 3, we used a range of the number of self-control acts (1 to 7 acts) to manipulate the subjective difficulty of the recall task with higher number of acts expected to induce a greater difficulty. Participants were randomly asked to retrieve either past self-control successes or failures within the spending domain. They were then asked to indicate how much debt they were willing to incur to purchase an attractive item. We found a significant interaction ($p < .05$) between difficulty and valence such that when consumers recall their past self-control successes, the greater difficulty of the retrieval task led to increased indulgence, whereas when recalling failures, task difficulty did not impact amount of indulgence. Furthermore, we tested the data for a proximal-distal mediation and found evidence that both participants' depletion (distal mediator) and their perceptions about their overall self-control ability (proximal mediator) fully mediated the relationship between the interaction of the nature of recalled acts and the subjective difficulty of retrieval and the outcome variable. The interplay of the nature of the recalled acts and the subjective difficulty of retrieval led to different levels of depletion, which was used by consumers to make generalizations about themselves and form an inference about their overall self-control ability. Then participants behaved consistently with those generalizations, so that consumers who believed that they are worse at self-control due to their current depletion state indulged significantly more than those who formed positive inferences about their overall self-control ability.

Our research suggests that consumers' self-control ability in the present is influenced not only by the actual exertion of self-control in the past, but also by people's reflections on those past self-regulation instances. As such, we take a deeper look at the consequences of ego-depletion by focusing on how it informs consumers' beliefs about their own self-control abilities.

For more information, contact: hrd5@pitt.edu

Not All Health Claims Are Created Equal: Dissociating the Dynamics of Guilt and Desire Invoked by Healthy Indulgences

Nina Belei, Maastricht University, The Netherlands

Kelly Geyskens, Maastricht University, The Netherlands

Caroline Goukens, Maastricht University, The Netherlands

Suresh Ramanathan, Texas A&M University, USA*

Jos Lemmink, Maastricht University, The Netherlands

Healthier alternatives of inherently unhealthy food are increasingly prominent in today's supermarket shelves. Typically, such foods feature claims stressing either the presence of food attributes perceived as beneficial for one's health (e.g., antioxidants, vitamins) or the absence of attributes perceived as indicators of taste and enjoyment and therefore as unfavorable for one's health (e.g., fat, sugar). It is assumed that such 'better-for-you' options of unhealthy food should reduce feelings of guilt associated with eating the food, arguably because the presence of health claims make their consumption easier to justify, thereby providing consumers with an implicit license to eat (Wansink & Chandon, 2006).

In contrast, the literature on the effects of hedonic (e.g., fun, tasty) versus functional (e.g., safe, nourishing) attributes on stimuli perception, preference, and choice predicts that consumers should eat less of unhealthy food carrying a health claim because they (unwittingly) subscribe to the unhealthy = tasty intuition (Raghunathan et al., 2006). This would imply that the more healthy a food gets, the less tasty it is perceived. We combine both streams of research and propose a more nuanced framework suggesting that it is the nature of the attributes highlighted in a claim which determines how much of the food is consumed.

In experiment 1, we show that seemingly similar health claims attached to unhealthy food result in very different consumption patterns, despite the fact that they are all perceived as equally tasty. Claims emphasizing a functional food attribute (e.g., antioxidants) induce a significant decrease in consumption compared to a control condition, whereas claims highlighting a hedonic food attribute (e.g., low-fat) result in a significant increase in consumption. Such opposite consumption patterns triggered by ostensibly similar health claims suggest that different mechanisms are at work for health claims featuring attributes highlighting the hedonic qualities of the food (e.g., fat = tasty), compared to claims highlighting health-related functional attributes (e.g., antioxidants = beneficial for one's health; cholesterol = detrimental for one's health).

Experiment 2 examines whether health claims featuring hedonic versus functional food attributes evoke different levels of health goal accessibility. We suggest that claims stressing functional food attributes lead to greater accessibility of the health goal compared to those emphasizing hedonic attributes. At the same time, we expect indulgence goals to be highly accessible regardless of the presence or absence of health claims and independent of the nature of the attributes emphasized in claims (Fedoroff, Polivy, & Herman, 2003; Lambert & Neal, 1992). Using a lexical decision task, we tested whether different claims led to different response latencies for words relating to health and indulgence. The results showed that hedonic attributes led to slower response times towards health words when compared to functional attributes, while response latencies towards indulgence words were no different across the conditions.

In Experiment 3, we provide a more fine-grained analysis of the processes underlying different types of health claims by investigating the emotional signature of conflicting goals triggered by functional versus hedonic food attributes. In particular, we dissociate the simultaneously experienced feelings of desire and guilt upon exposure to a picture of a tempting food carrying a health claim featuring either a functional or a hedonic food attribute. Using a dynamic adaptation of the evaluative space grid (Larsen, Norris, McGraw, Hawkey, & Cacioppo, 2008), we recorded participants' moment-to-moment reactions regarding desire and guilt. Results reveal that the goals activated by food attributes differing in their hedonic versus functional nature evoke very different trajectories of desire and guilt. While both types of claims provide similarly high levels of desire as they are attached to indulgences, the time course of felt guilt is very different in nature. Specifically, health claims featuring hedonic attributes evoke an immediate ramp up in desire for the food while guilt is at a low level. Further, more interestingly, there is a gradual increase in guilt over time, suggesting that people are experiencing an ironic rebound of suppressed guilt. This runs counter to an ease of justification argument, which would imply reduced guilt over time. In contrast, functional attributes cause a reduced immediate desire towards temptations, suggesting an immediate devaluation of the product, coupled with a rapid ramp-up in guilt.

Together, our findings reveal that seemingly similar health claims may activate very different levels of health goal accessibility, leading to different dynamics of desire and guilt experienced every moment, leading eventually to opposite consumption patterns of the unhealthy food they are attached to. Our findings have broad relevance to the food industry, and suggest that the nature of attributes emphasized in the health claim can have significant effects on consumption.

For more information, contact: sramanathan@mays.tamu.edu

Survival Mindset and Food Choices

Juliano Laran, University of Miami, USA

Anthony Salerno, University of Miami, USA*

As the war on obesity wages on, consumer researchers remain motivated to learn more about the reasons why consumers continue to make poor food choices. Past research has shown that a major contributor of consumers' poor food choices is a result of struggles with self-control (Baumeister, 2002; Wilcox et al., 2009). In our research, we discover an alternative explanation to consumers' unhealthy food choices that we have termed the survival mindset.

We propose that there are times in which consumers engage in a survival mindset and instinctively eat filling and high-calorie food, often without consideration of the overall healthiness or even tastiness of the food. We define survival mindset as a sense of immediate adversity and resource deprivation that one must withstand by making the best use of one's resources in order to live longer (Hill & Stamey, 1990). The concept of survival is a lingering concern as unemployment rates continue to hover around 10% within the United States (U.S. Bureau of Labor Statistics, 2010). However, this sense of resource deprivation need not be economic in nature; it can refer to food, water, shelter, and other basic resources that humans require to function. This mindset, when activated, leads consumers to choose food items perceived to be more filling or higher-calorie to compensate for the sense of immediate resource deprivation and to aid long-term sustainability.

Across four studies, we use an array of priming procedures to activate a survival mindset, and provide evidence for the processes that lead from a survival mindset to consumers' food choices. Study 1 shows that a survival mindset leads to preference for higher calorie foods (i.e., keep people fed longer) and that this preference is driven to perceptions of immediate resource scarcity. Study 2 shows that a survival mindset leads to choices of filling food items when this mindset is associated with surviving in the present-term, but leads to choices of healthy food when associated with surviving long into the future. Study 3 differentiates a survival mindset from a willingness to indulge by showing that a survival mindset leads to choices of food items that are high in calories, while a willingness to indulge leads to choices of food items that are tasty. Study 4 shows that a survival mindset can lead to choices of food items that are tasty and unhealthy, but that increasing the perception resources available leads to healthier choices compared to people in a pleasure-seeking mindset.

Study 1 tested the hypothesis that the survival mindset leads to preference for high-calorie food items. We primed people with the concept of survival versus resource abundance and found that people primed with survival indicated a greater preference for a high-calorie sandwich than a low-calorie sandwich. In addition, we found that the survival mindset's influence on food preference was mediated by perceptions of resource scarcity. However, when resource abundance was primed, we found that people indicated a greater preference for a low-calorie sandwich than a high-calorie sandwich.

Study 2 introduced the concept of survival duration as a moderating variable between the survival prime and food choice. We manipulated duration by having participants think about how long or short various events last and show that this carries over into how long survival is thought to last. Participants primed to focus on survival in the short-term were more likely to choose the unhealthier sandwich. By contrast, participants primed to focus on survival in the long-term were more likely to choose the healthier salad. Mediation evidence is provided, where survival participants in the short-term select food according to what's filling, while the survival participants in the long-term select food according to what's healthier. The results of study 2 were also shown to go beyond what can be accounted for from a construal-level theory explanation (Trope & Liberman, 2010).

Study 3 primed survival versus pleasure and observed people's preferences for a foot-long sub, depending on whether the sub was framed as being high-calorie versus tasty. We show that people primed with the concept of survival favor the sub more when framed as high-calorie, while the pleasure primed participants favor the sub when framed as tasty.

Study 3 shows that the survival prime is distinct from a pleasure prime and that people primed with survival are not choosing high calorie foods out of taste and indulgence (Raghunathan, Naylor, & Hoyer, 2006).

Study 4 shows money is a moderating variable that has the potential to alleviate perceived resource deprivation and attenuate the effect of the survival prime on food choice. We used a lexical decision task to prime people with either survival or pleasure and then ask them to choose between cupcakes and a garden salad. Additionally, some participants were given one dollar under the guise of a thank you gift. Participants primed with survival selected cupcakes without money and the healthier garden salad with money. Pleasure primed participants primarily selected cupcakes regardless of receiving money or not. The results show that addressing the immediate sense of resource scarcity within the survival mindset leads to the selection of healthier long-term food choices rather than more immediate and impulsive indulgences.

Taken together, this research demonstrates that consumers' propensity to choose high-calorie and unhealthy food is not always due to difficulties related to self-control. Rather, our theory supports the notion that in certain circumstances, consumers might view these foods as purposeful and utilitarian rather than hedonistic in function. Furthermore, we find promising results in our later studies, suggesting ways in which we can address the immediate perceptions of resource scarcity and lead consumers to make healthier food choices that can help them to live longer.

For more information, contact: a.salerno@miami.edu

3.4 Individual Papers: SCP Dissertation Proposal Competition Award Winners

Room: Palo Verde

Chair: Maria L. Cronley, Miami University, USA
Peggy Sue Loro, Gonzaga University, USA

Social Comparison in Decisions for Others: Considering Multiple Gift Recipients Leads to Over-Individuated and Less Liked Gifts

Mary Steffel, University of Florida, USA*
Robyn A. LeBoeuf, University of Florida, USA

Gift giving is a challenge, and sometimes, this challenge is compounded by having to choose gifts for multiple recipients. Having multiple recipients in mind not only means that more gifts are needed, but it may change what givers focus on when making gift selections. We hypothesize that, when people select gifts for multiple recipients, they focus on what differentiates the recipients instead of on what each would like best, leading givers to select unique gifts over gifts that would be better liked.

There are at least two reasons why such an effect might arise. First, givers may actually perceive recipients differently when they are presented together versus separately (e.g., Hsee 1996). Alternatively, givers may want to personalize gifts in order to convey an understanding of recipients' unique identities (e.g., Belk 1996; Schwartz 1967), and this personalization motive may be highlighted in the multiple-recipient context. Although it may be important to differentiate gifts when recipients are likely to compare gifts, if recipients are unlikely to do so, then it makes less sense for givers to pass up gifts that would be better liked in favor of unique gifts.

Studies 1-3 explore whether givers who are purchasing items for multiple recipients favor unique gifts over better liked gifts. In each study, givers selected a gift for one recipient or two unacquainted recipients from a list of options in which

one gift would clearly be better liked by both recipients. For example, in one study, participants selected a birthday card for one or two recipients: the target recipient and another recipient who was shown laughing (suggesting that he had a better sense of humor). Although most givers in the one-recipient condition (70%) gave the target recipient the card that was rated funniest in a pre-test, in the two-recipient condition, only a minority gave him this card (26%), $\chi^2(1) = 9.03, p = .003$. This happened despite the fact that givers who gave one of the other cards predicted that the target recipient would enjoy that card less than did givers who gave the funny card, $t(45) = 2.38, p = .02, d = .68$.

Study 4 examined a perceptual account for the current effects. Givers either chose a gift for one friend, chose a gift for two friends, or considered both friends but only choose a gift for one. One of the available gifts was clearly the most appropriate gift. Some givers *gave* an item and others *predicted* which item the recipient(s) would choose. A contrast analysis indicated that givers were less likely to *give* the target recipient the better gift when they selected gifts for both her and another recipient (42%) than when they considered the target recipient alone (86%) or considered both recipients but selected a gift for the target recipient only (82%), $z = 3.88, p < .001$. Givers *predicted* that the target recipient would choose the better gift for herself regardless of condition, $\chi^2(2, N = 168) = .42$. Thus, merely considering two people together does not alter perceptions of recipients' tastes and does not drive the tendency to differentiate gifts.

Studies 5 examined whether givers differentiate gifts in an effort to be thoughtful. Participants chose between the movies *Up!* and *Star Trek* for a recipient who had a main interest in animation and a secondary interest in science fiction. Participants chose which movie would be more thoughtful. Half of each sample considered this choice in isolation, and the other half considered this choice in the context of having already chosen to give *Up!* to another friend. Fewer thought that *Up!* was the more thoughtful gift when they were also giving *Up!* to another recipient (52%) than when they were getting it only for the target recipient (97%), $\chi^2(1, N = 61) = 17.39, p < .001$.

Studies 6 and 7 examined whether overindividuation is exacerbated the more thought people put into their gift decisions. In study 6, givers imagined selecting gifts for two close friends, for whom they were especially motivated to be thoughtful, or for two casual acquaintances. Both recipients preferred animated movies, but the target recipient had a secondary interest in science fiction. That target recipient was less likely to receive the better gift (the animated movie) in the close-friends condition (31%) than in the casual-acquaintances condition (47%), $\chi^2(1, N = 157) = 3.97, p < .05$, indicating that givers were less likely to diversify their gift choices for casual acquaintances. In study 7, participants were given a short or long amount of time in which to make their gift choices. That target recipient was less likely to receive the better gift in the more thought condition (31%) than in the less thought condition (58%), $\chi^2(1, N = 71) = 5.19, p < .05$. Thus, ironically, the harder givers try to be thoughtful, the more likely they may be to pass up gifts that would be better liked in favor of unique gifts.

Finally, study 8 explored whether focusing givers' attention on recipient liking, by asking them to first predict which items recipients would choose for themselves, might encourage givers to select gifts that maximize recipient liking. Indeed, givers who first predicted which items recipients would choose for themselves were more willing to give two recipients the same gift than those in the control condition, who were more likely to diversify their gift selections. (Seventy-six percent gave the target recipient the better gift in the predict-liking condition and 54% did so in the control condition, $\chi^2(1, N = 73) = 3.93, p < .05$.)

In sum, the social context in which a gift is selected influences gift choices. When people select gifts for multiple recipients, they are more likely to pass up gifts that would be better liked for gifts that differentiate recipients. This tendency is rooted in the motivation to be thoughtful and is ameliorated by encouraging givers to consider which items recipients would choose for themselves.

For more information, contact: mary.steffel@warrington.ufl.edu

When Safety Matters: Depletion Heightens Vigilance Against Danger

Monika Lisjak, Northwestern University, U.S.A.*

Ample research suggests that engaging in a self-regulatory task undermines self-regulation at a subsequent task—an impairment referred to as the *depletion effect* (Baumeister et al. 1998; Muraven, Tice, and Baumeister 1998). For example, studies have shown that after resisting tempting cookies or making a series of choices (vs. not), people persisted less at a subsequent problem solving task (Baumeister et al. 1998; Vohs et al. 2008). Other studies have shown that people who suppressed their facial expressions while watching an emotional video subsequently persisted less at a physical task that involved squeezing a handgrip (Muraven et al. 1998). These findings suggest that engaging in a self-regulatory task diminishes subsequent self-regulation, whether in the cognitive, physical, or emotional domain.

In this research, I propose that there are cases under which engaging in a self-regulatory task strengthens—rather than diminishes—subsequent self-regulation. In particular, I propose that when people are depleted they become more *vigilant against danger* and hence self-regulate more when faced with dangers than non-depleted individuals. I argue that this occurs because depletion is associated with feelings of vulnerability, which in turn heighten people's vigilance against dangers (Luce and Kahn 1999; Menon, Block and Ramanathan 2002). Thus, I posit that depleted (vs. non-depleted) individuals will self-regulate more rather than less when their personal safety is at stake. In particular, I propose that depleted (vs. non-depleted) individuals will be more likely to engage in vigilant behaviors, such as taking a condom sample, avoiding unprotected sex, or getting tested for a disease. I test these predictions in a series of three studies.

Study 1 was designed to examine whether depletion increases preference for products that reduce dangers. In particular, I sought to demonstrate that depleted (vs. non-depleted) people would be more likely to take free condom samples. To manipulate depletion, I asked participants to cross off letters that appeared in a meaningless text by either following complex rules (depletion condition) or simple rules (non-depletion condition; Wan and Sternthal 2008). Next, participants were invited to participate in a marketing study in which they would evaluate condom packaging. After evaluating the products, participants were told that they were free to take as many condom samples as they would like. Consistent with my predictions, depleted participants took significantly more condom samples than their non-depleted counterparts, providing support for my theorizing.

The objective of study 2 was twofold: first, to examine whether depletion prompts people to exert greater self-control when danger is involved; and second, to examine the underlying process at work. Prior research has indicated that depletion heightens sexual impulses (Gailliot and Baumeister 2007). In contrast, I predicted that when personal safety is at stake, depletion would heighten sexual restraint. Following established procedures (Pocheptsova et al. 2009), I first manipulated depletion by using the Stroop task, which required half of the participants to override their automatic responses (depletion condition) while the remaining half did not have to do so (non-depletion condition). Next, participants were presented with a sexual decision-making scenario. For half of the participants, the scenario involved the potentially dangerous situation of having unprotected sexual intercourse. For the remaining participants, the scenario provided them the opportunity to use protection. After reading the scenario, participants reported how likely they were to engage in the sexual intercourse and how vulnerable they felt. In line with existing research, I found that in the protected sex scenario, depleted (vs. non-depleted) participants were more likely to follow their impulses and engage in the sexual intercourse. However, in the unprotected sex scenario, depleted (vs. non-depleted) participants were more likely to restrain their impulses by not engaging in the potentially dangerous sexual intercourse. Moreover,

perceptions of vulnerability mediated depleted participants' decision to exert self-control when confronted with danger, lending further support for my theorizing.

Finally, study 3 sought to provide additional evidence for the proposed process by showing that manipulations of perceived vulnerability and depletion both heighten vigilance against danger. Similar to study 1, I first manipulated depletion by asking participants to cross out letters in a text. Then, I asked participants to read a message about hepatitis testing. Half of the participants read that they were at risk for hepatitis if they engaged in certain frequent behaviors, while the other half read that they were at risk if they engaged in certain infrequent behaviors (Menon et al. 2002). Finally, participants indicated their intention to get tested and the extent they believed they were at risk for hepatitis. The results revealed that participants in the frequent risk behavior condition were more likely to get tested than those in the infrequent risk behavior condition. More central to this research, depleted participants were more likely to get tested than their non-depleted counterparts. The two-way interaction was nonsignificant, suggesting that the effects of risk behavior and depletion are additive. Importantly, the effects of risk behavior and depletion were both mediated by perceived vulnerability.

This research contributes to existing literature in multiple ways. First, I show that self-regulation is not necessarily weakened by depletion—as suggested by extant research—but that it can also be strengthened. Moreover, I show that this effect is a function of whether or not the task at hand is perceived to represent a danger to the individual. Specifically, I find that depletion strengthens self-regulation when the task is perceived to be dangerous and weakens self-regulation when it is not. This suggests that depletion can be adaptive such that it not only helps individuals conserve their limited resources but that it also helps individuals strategically allocate those resources to situations that pose the greatest threat. Finally, these findings have important implications for the design and implementation of health interventions.

For more information, contact: m-lisjak@kellogg.northwestern.edu

The Motivational Effects of Product Beauty

Gratiana Pol, University of Southern California, USA*

C. W. Park, University of Southern California, USA

The power of visually attractive consumer products is undeniable. Aesthetically appealing items—such as the iconic electronics that carry the Apple logo—command significantly higher prices than their less attractive counterparts, and are often key to a company's financial success (Bloch, 1995; Miller & Adler, 2003; Patrick & Peracchio, 2010). Of course, such products would not be so successful unless consumers saw a great deal of value in owning them and were willing to 'go the extra mile' to acquire and keep them. Consistent with the notion that such products rank among consumers' most valued—or even 'sacred'—possessions (Bloch, Brunel, & Arnold, 2003), academic and anecdotal evidence suggests that consumers do indeed make substantial efforts and even sacrifices in order to acquire and own visually appealing products. They are willing to pay between 50% and three times more for a visually attractive item than for a less attractive one (Bloch et al., 2003; Sood, 2011; Townsend & Sood, 2010), drive for hours, spend hours in line, or wait for weeks for an out-of-stock item to be shipped (e.g., Whitney, 2012), if their effort is conducive to obtaining an aesthetically appealing product. After acquiring such a product, consumers will take particularly good care of it (Bloch, 1995), in some cases even refusing to use it so as to protect its pleasing appearance (Cardew, 1969).

What motivates consumers to go to such great lengths to gain and maintain ownership of good-looking products?

Despite the critical importance of visual aesthetics to the marketing discipline (Bloch, 1995; Hoegg & Alba, 2008), as

well as the increasing amount of consumer aesthetics research conducted in recent years (see Patrick & Peracchio, 2010), this rather basic question remains largely unanswered. That we are currently unable to identify the motivational factors behind the undeniable power of product attractiveness underscores the need for our field to evolve towards a more fundamental understanding of consumers' responses to visual attractiveness, as well as to engage in developing a comprehensive theory of consumer aesthetics (e.g., Kumar & Garg, 2010; Orth & Malkewitz, 2008; Patrick & Peracchio, 2010).

In light of this notable research gap, my dissertation aims to address two critical questions. First, which psychological responses explain why consumers are willing to go the extra mile in order to acquire and maintain ownership of visually attractive products? Second, can these psychological responses and their behavioral consequences be simply traced back to the hedonic character of attractiveness, or are they more strongly associated with attractiveness than with other hedonic product attributes? The latter question is particularly important in light of the fact that, while it is commonly assumed that a product's aesthetic appeal is somewhat different from other hedonic product attributes (Townsend, 1997; Wagner, 1999), we lack a clear understanding of those differences (Charters, 2006; Patrick & Peracchio, 2010).

I propose that consumers' willingness to make substantial efforts towards acquiring and maintaining attractive products is best described as a combination of Instantaneous Desire (i.e., the immediate craving induced by the sight of a visually appealing product) and Ownership Pride (i.e., the owner's feeling of pride in being associated with such a product). I show that the combination of Instantaneous Desire and Ownership Pride accounts for the link between product attractiveness and purchase-related effort (measured in terms of consumers' willingness to pay a price premium, drive to a great distance, or wait for an out-of-stock product to become available), while Ownership Pride explains the effect of product attractiveness on maintenance-related effort (measured in terms of consumers' hesitation to use an attractive product because they may damage its appearance). I further demonstrate that the explanatory power of Instantaneous Desire and Ownership Pride is superior to that of alternative constructs, such as positive mood (e.g., Norman, 2002) or the beautiful-is-good effect (e.g., Kumar Batra, Brunel, & Chandran, 2009; Page & Herr, 2002), both of which have traditionally been associated with product attractiveness in consumer research. Finally, I show that, simply substituting aesthetic appeal for a different, yet equally pleasant and vivid hedonic attribute (such as a humorous appearance) fails to elicit the same level of Instantaneous Desire, Ownership Pride, and behavioral effort as attractiveness does, which underscores the potentially unique association between these responses and beauty.

The empirical part of my dissertation examines these hypotheses in a series of five studies. Study 1 verifies that visually appealing products do indeed trigger Instantaneous Desire and (anticipated) Ownership Pride across consumers (Study 1a), while prompting them to exert effort towards acquisition and maintenance of those products (Study 1b). In Study 2, I employ a survey design to demonstrate that the two central constructs—Instantaneous Desire and Ownership Pride—explain the impact of product attractiveness on purchase and maintenance-related effort. I further compare the two constructs to alternative mediators such as mood and the beautiful-is-good effect, and show that Instantaneous Desire and Ownership Pride have greater explanatory power. In Studies 3 I examine the mediating properties of the two constructs using an experimental, rather than survey-based design. Specifically, I manipulate either Instantaneous Desire (Study 3a) or Ownership Pride (Study 3b) independently of each other, and without altering participants' mood or the beautiful-is-good effect, and measure the change in behavioral effort triggered by each manipulation. Finally, in Study 4, I show that, compared to aesthetically appealing items, humorous-looking items trigger less purchase- and maintenance-related effort, and this difference can be explained on the basis of Instantaneous Desire and Ownership Pride.

By establishing that a robust connection exists between the desire and pride and the behavioral effort directed towards aesthetically appealing products, my research aims to make a conceptual contribution to the literature on aesthetics, as well as offer a blueprint for how marketers can best harness the motivational value of product attractiveness.

For more information, contact: gratiana.pol.2012@marshall.usc.edu

3.5 Symposium: The Effect of Individual and Contextual Factors on Food Consumption

Room: Cottonwood

Chair: Nitika Garg, University of New South Wales, Australia

Does Liking or Wanting Determine Inter-stimulus Intervals in Food Intake?

Carey Morewedge, Carnegie Mellon University, USA

Baba Shiv, Stanford University, USA

Emily Garbinsky, Stanford University, USA*

The extent to which an individual likes and wants various items affects the choices that they make. While liking and wanting are similar constructs, they have typically been distinguished in the following manner: liking refers to the amount of pleasure that is derived from a stimulus while wanting refers to a desire to obtain that stimulus (Finlayson, King, & Blundell, 2007b). For this reason, liking is considered to be a hedonic or affective component while wanting has been classified in terms of motivation (Finlayson, King, & Blundell, 2007a).

Numerous studies have been conducted to show that these two constructs are indeed separable. Examples include the finding that wanting an addictive substance is not necessarily coupled with enjoyment of that substance (Robinson & Berridge, 1993) and that thwarting participants from winning a particular prize results in increased wanting of that prize (higher willingness to pay) but decreased liking (greater likelihood of switching prizes after they finally obtain it) (Litt, Khan, & Shiv, 2009). Additionally, liking and wanting have been linked to different neural substrates (Berridge, 1996) since the manipulation of dopamine has been shown to change motivated behavior (wanting) but not taste liking (Berridge & Robinson, 2003).

Knowing that liking and wanting have separate influences on behavior, the goal of this research is to investigate which construct (liking or wanting) influences the inter-stimulus interval with regard to food intake (which we define as the amount of time that passes before individuals choose to once again consume a particular food that they recently ate).

Study Method. In Study 1, participants were either assigned to the low satiety condition (where they were asked to eat 5 Nut Thins) or the high satiety condition (where they were asked to eat 15 Nut Thins). All participants were asked to provide ratings after eating each cracker regarding how much they liked the Nut Thins and the extent to which they wanted to continue eating them. The dependent variable was the number of days that each participant indicated that they would like to have a free box of Nut Thins delivered to their home. This was measured in a follow up survey that was completed the next day.

In Study 2, all procedures were identical to Study 1 with the exception that half of the participants in each satiety condition were placed under high cognitive load by completing an arithmetic task while consuming the Nut Thins. Once again, the dependent variable was the number of days that each participant indicated that they would like to have a free box of Nut Thins delivered to their home. This was measured in a follow up survey that was completed the next day.

Results. Study 1 results showed a significant effect of satiety condition on desired delivery of free boxes ($t(28) = -2.24$, $p = 0.03$) such that participants in the low satiety condition reported that they wanted their free boxes delivered sooner ($M = 8.14$) than those in the high satiety condition ($M = 19.63$). More importantly, a mediation analysis among participants in the low and high satiety conditions revealed a mediating role of decrease in liking (Baron and Kenny 1986). First, desired days until delivery was regressed on condition ($\beta = 11.48$, $t = 2.24$, $p = 0.03$). Next, decrease in liking was regressed on condition ($\beta = 1.18$, $t = 2.67$, $p = 0.01$). Then, desired days until delivery was regressed on decrease in liking ($\beta = 6.05$, $t = 4.31$, $p < 0.001$). Finally, desired days until delivery was regressed on both condition and decrease in liking and, supportive of mediation, the effect of condition became insignificant ($\beta = 4.33$, $t = 0.90$, $p = 0.37$), whereas the effect of decrease in liking remained significant ($\beta = 5.45$, $t = 3.50$, $p = 0.002$).

Study 2 results showed a significant interaction between satiety level and cognitive load ($F(1,75) = 7.23$, $p < 0.01$). Simple effects tests revealed a significant difference in days until desired delivery for participants under no load ($F(1, 34) = 8.10$, $p < 0.01$), but no significant difference for participants under high load ($F(1,41) = 0.843$, $p = 0.49$). Replicating the results of Study 1, those in the low satiety condition reported that they wanted their free boxes delivered sooner ($M = 8.46$) than those in the high satiety condition ($M = 24.91$). These results are due to the significant interaction between satiety level and cognitive load ($F(1, 79) = 7.57$, $p < 0.01$), indicating that the cognitive load manipulation was successful. Simple effects tests revealed a significant difference in the decrease in liking for participants under no load ($F(1, 35) = 41.12$, $p < 0.01$), but no significant difference for participants under high load ($F(1, 43) = 2.22$, $p = 0.14$). A mediation analysis among participants in the no load conditions replicated the mediating role of decrease in liking.

Ongoing Work and Extensions. In follow-up investigations, we plan to obtain measures of actual (instead of merely predicted) future consumption by providing participants with the opportunity to consume the stimulus again. Additionally, future studies will utilize behavioral measures of liking and wanting, such as examining the propensity to switch from one stimulus to another (liking measure) or the speed with which a stimulus is chosen (wanting measure).

Conclusions. The results provide insight into the extent to which liking and wanting influence readiness to repeat consumption experiences. Specifically, the findings suggest that the decrease in liking that accompanies increased food consumption is an important predictor for length of time until repeated consumption (Study 1) when the consumer has adequate attentional resources available while consuming (Study 2). Not only do the results highlight the important role that satiation plays in future consumption choices, but they also suggest that offering smaller portion sizes may result in more frequent consumption.

For more information, contact: garbinsky_emily@gsb.stanford.edu

Attenuating Sadness' Effect on Consumption: Helplessness, Choice, and Self-Awareness

Nitika Garg, University of New South Wales, Australia*

Jeff Inman, University of Pittsburgh, USA

From a layman's perspective, behavior and consumption are related with the affective state that a person is experiencing. Indeed, research on incidental emotion – emotion consumers imbue from their environment in isolation to the task at hand – has discovered the pervasive tendency of emotions to carry over from one situation to another, coloring behavior in unrelated tasks (for reviews, see Forgas 1995; Isen 1993; Keltner and Lerner 2010; Loewenstein and Lerner 2003; Schwarz 2000). In the domain of consumption, incidental affect has been shown to influence in-store shopping

(Woodruffe 1997), in-home food choice (Wansink, Cheney, and Chan 2003), as well as amount of food consumed (Garg, Wansink, and Inman 2007). With the nation increasingly concerned with overeating and obesity, understanding why incidental affect influences food intake and whether it can be moderated is an important topic. The implications are of interest to public policy and health professionals as well as to consumers who are interested in controlling their food intake.

One of the most curious carryover examples of emotion effects involves sadness and consumption. It is curious for at least two reasons. First, its effects depart from what one would predict based on emotional valence. The standard prediction of a valence-based model would be that any negative emotion, including sadness, should trigger generalized negative valuation. That is, a negative state should lead one to perceive the world in negative ways including consumption of a hedonic food product. While disgust, another negative emotion, fits that predicted pattern, sadness does not (Lerner et al. 2004).

A second curious aspect of sadness and consumption is that the carryover effect drives consumption behavior across diverse domains. In the domain of eating, for example, sadness (relative to happiness) leads to increased consumption of tasty, fattening food products, such as buttered popcorn and M&M candies (Garg et al. 2007). In the domain of consumer transactions, sadness (relative to a neutral state) increases the amount people spend to purchase items (Lerner et al. 2004). Sadness' effect on consumption can be understood by examining its core relational theme of loss and helplessness (Lazarus 1991) which might trigger implicit goals of reward replacement (Raghunathan and Pham 1999) and changing one's circumstances (Lerner et al. 2004). Notably, sadness is associated not with simple loss (e.g., loss of a replaceable possession) but rather with a sense of irrevocable loss (e.g., loss of a loved one). Recent research has argued that it is this combination of loss and helplessness associated with sadness that leads to compensatory tendencies (Garg and Lerner 2011).

In the present research, we hypothesize that given these underlying themes of loss and helplessness associated with sadness (Frijda, Kuipers, & ter Schure, 1989; Keltner & Lerner, 2010; Lazarus, 1991) as well as its pattern of compensatory consumption, sadness' effect on consumption can be attenuated by increasing decision makers' sense of individual control and decreasing their sense of helplessness. We focus on helplessness because it connects to the issue of control, which has proven important in guiding emotion effects, based on past investigations using the appraisal tendency framework (Garg et al. 2005; Lerner & Keltner 2000), and because it is part of sadness' core relational theme (Lazarus 1991). In the process, we also replicate and extend the existing research in the sadness-consumption domain. Specifically, we conduct a series of three studies to examine whether offering a choice of a product can attenuate sadness' influence on the amount of hedonic food consumed (Study 1) and whether the focus of decision making (for self or for others) matters in the choice context (Study 2). Further, we explore the role of self-awareness in the sadness-consumption relationship (Study 3).

Study 1 examines whether explicit choice of a hedonic (vs. a non-hedonic) good attenuates sadness' effect on hedonic food consumption. We expect that a choice will be more powerful than simple endowment because it will afford some semblance of control to individuals and might therefore alleviate the helplessness associated with sadness. To test this hypothesis, we compare participants endowed with a hedonic gift to those who are specifically asked to choose between a hedonic gift and a non-hedonic one. A 3 (emotion: sad, happy, neutral) x 2 (choice of a gift, no-choice) between-subjects design was implemented to test the hypotheses of the study. Results find that only when sad individuals are afforded an opportunity to make a choice, does it succeed in overriding the effect on consumption. Also as predicted, neutral and happy individuals are similar in consumption across choice versus no-choice conditions.

Study 2 not only wanted to validate our findings from Study 1 by replicating the results but more importantly, it wanted

to clarify whether the locus of choice - for self or others – influenced its efficacy in attenuating sadness' effect. Study 2 used a 2 (emotion: sad, happy) x 3 (choice for self, choice for others, no-choice) between-subjects design to examine this question. Results reveal that only when choice affects self, is the effect of sadness attenuated.

The final study aims to examine whether self-awareness moderates sadness' effect. Prior research has found that sadness increases self-focus and this increased self-focus increases individuals' willingness to pay more to acquire a new object (Cryder et al. 2008). However, existing research also shows that participants in the high self-awareness condition (where they could see themselves in a mirror) curtail their consumption of fatty food products (Sentryrz and Bushman 1998). Thus, Study 3 will test these alternative views and examine whether self-awareness amplifies or attenuates sadness' effect on consumption. It will implement a 3 (emotion: sad, happy, neutral) x 2 (self-awareness: low, high) between-subjects design to do so.

Overall, the current research aims to provide critical insight into the theoretical moderators and mediators underlying the sadness-consumption relationship. This will have important implications for the strategies employed to attenuate sadness' effect and for improving our understanding of sadness because of the negative consequences of unbidden consumption.

For more information, contact: n.garg@unsw.edu.au

Bite-size and Quantity of Food Consumed

Arul Mishra, University of Utah, USA

Himanshu Mishra, University of Utah, USA

Tamara Masters, University of Utah, USA*

Over-consumption, obesity and the related health problems have made food consumption the topic of much research. One stream of research has focused on how portion sizes can influence the quantity consumed. This research suggests that bigger portion sizes lead to higher consumption than smaller portions (Rolls et al 2004; Schwartz and Byrd-Bredbenner 2006; Scott et al. 2008). However, one factor of the consumption setting has received relatively less attention– the bite size (the amount of food in each mouthful). It is worth noting that most of our consumption is in the form of meals which, unlike a onetime consumption, is composed of several bites of the food items. Even with the same portion-size, people can consume different bite-sizes. Would people still consume less with a smaller versus a larger bite size (in line with past work on portion size) or would this be reversed?

In this research, we propose that when individuals have a well-defined hunger goal and invest resources to satiate their goal they will consume more when consuming smaller bite-sizes rather than larger bite-sizes. Moreover, we suggest that bite-size (operationalized through fork size in our study) becomes the medium with which one can facilitate (or not) the goal of hunger satiation. The fork size provides individuals with a means to observe their goal progress. The physiological feedback of feeling full or the satiation signal comes with a time lag (Carroll et al. 2007). Hence, in its absence individuals focus on the visual cue of whether they are making any dent on the food on their plate to assess goal progress. The smaller fork (compared to larger fork) appears to provide less satisfactory goal progress i.e., individuals feel they are not making much of a dent in consuming their food and hence satisfying their hunger goal. This in turn focuses them to put in more effort (e.g. more forkfuls) towards satiating their hunger goal. Therefore, we propose that those with smaller forks will consume more food than those using larger forks.

In order to test this proposition, we collected data in a restaurant because people visit the restaurant with a well-defined goal of satiating their hunger and in this process they invest effort and resources (e.g. time, money and choice of food

and location) to satisfy their goal in the best possible manner. A meal in a restaurant entails a continuous consumption occasion, rather than a single helping of a food, which allowed us to test the influence of bite sizes on overall consumption.

The study was conducted over two days during two lunches and two dinners in a popular, locally-owned, Italian restaurant. Two sets of forks, small and large, were used to manipulate bite size. For each meal, tables were assigned to be either “large fork” tables or “small fork” tables. After the food was prepared it was placed on the kitchen counter at which point the full plate of food was weighed on a sensitive food scale. A small sticky note was attached on the underside of each plate which noted the weight of the full plate in ounces, item name, table number and the fork-size at that table. The food was then taken to the diners. When the plate was brought back (either empty, with leftovers to be disposed of, or needing to be boxed to take home) it was again weighed and the value was recorded on the sticky note. The sticky note was then removed and stored. We also took note of the date, time, price of item, and if an alcoholic drink was ordered. The results indicated that diners consumed more with a small fork than with a large fork.

There are two components to our goal-based explanation – a well defined hunger goal, which leads to subsequent efforts at goal satiation and the role of the medium, fork size, in providing a feedback of goal progress. First, if it is true that a large fork appears to indicate better goal progress, compared to a small fork, then we should find that the effect of fork size increases as the initial quantity served increases. We find support for this proposition in the restaurant data. Diners consumed more with a small fork compared to a large fork when the portion sizes were large but this difference diminished for smaller portion sizes. When the portion sizes are large the small fork as opposed to a large fork does not give a satisfactory sense that progress is being made to satiate the hunger goal. However, even a small fork seems to provide satisfactory goal progress with a small portion size.

To test the role of having a well defined hunger goal and the resultant effort in achieving it we conducted a study in a controlled lab setting. When factors such as a well defined goal to satisfy hunger and the resultant effort investment to satiate the goal are absent from the consumption setting then people would be more likely to allow a pre-determined appropriate unit to guide their consumption and not over-ride it. In this event, we should find that the influence of fork size on consumption disappears or even reverses. Participants were offered a pre-weighted bowl of pasta salad with either a small or a large fork and a bottle of water. The same forks as in the restaurant study were used. Participants were left alone and allowed to consume as much as they wanted. When they indicated that they had had enough, the pasta bowl was again measured to get the post-meal weight. The results indicated that participants consumed more with a large fork than with a small fork. Therefore, we find that when there is no well-defined hunger goal and resultant effort invested to satiate that goal, as in the lab study, this effect reverses in pattern.

In sum, we suggest that bite-size is an important factor to be considered in the consumption setting because it becomes a critical medium that can influence quantity consumed.

For more information, contact: tamara.masters@utah.edu

3.6 Individual Papers: Money, Money, Money

Room: Mesquite 2

Chair: Tatiana Fajardo, University of Miami, USA

Periodic Pricing Revisited: Beyond Pennies-a-Day

Stephen Atlas, Columbia University, USA*

Daniel Bartels, Columbia University, USA

Marketers have considerable flexibility to reframe a single price as a series of payments over time. Yet little is known about how such periodic pricing influences how consumers represent the intangible rewards associated with payment. For example, when a nonprofit reframes a large yearly donation as a series of small payments, it is not well understood how this reframing impacts the satisfaction a donor receives from, say, providing resources to feed hungry children. On a larger scale, bankers may similarly fundamentally alter how homeowners think about homeownership when they convert a single large price into monthly payments. We explore when and how periodic pricing (such as per-day price framing) encourages consumers to inflate the benefits associated with expenditures and report results from four studies suggesting that consumers often respond better to a periodic payment plan than to an aggregate price.

Gourville (1998, 1999, 2003) suggested that reframing a cost as a series of small payments makes offers more attractive because consumers assimilate the cost with the category of trivial, recurring expenses, like a cup of coffee. In contrast, we find that periodic pricing encourages people to imagine the per-day benefits of their purchases while aggregate framing encourages them to evaluate an aggregate benefit. For example, we propose that a \$0.37/day donation request evokes thoughts about how one would impact a starving child on that day, while a \$135/year request evokes thoughts about a year of helping. In many cases, periodic pricing can magnify how consumers evaluate the anticipated benefits of each dollar spent. Importantly, this suggests a process through which periodic pricing can increase purchase intentions for non-trivial costs.

Our current work builds on theoretical insights from two streams of research. The first, the concreteness principle, holds that consumers tend to frame alternatives as presented by the decision context (Slovic, 1972; Read et al., 1999). Consequently, when evaluating decisions that frame costs narrowly or broadly, consumers tend to construe commensurate benefits according to the same frame.

The second insight is that consumers do not value benefits linearly over scale. Individuals' valuations of many goods are determined by affective response to prototypes rather than its quantity. For example, individuals are willing to pay roughly the same amount to save 2,000, 20,000 or 200,000 birds (Desvovages et al., 1992). When people respond to the presence of a stimulus but have low sensitivity to changes in its magnitude, their evaluations are scope insensitive (Hsee et al., 2005).

We propose that when narrowly-framed costs evoke narrowly-construed benefits, scope-insensitive benefits are magnified on a per-dollar basis. For example, a panda proponent presented with an opportunity to donate on a daily basis will imagine transitioning from doing nothing to helping save the pandas *a little every day*, a difference far greater than 1/365 of the equivalent yearly donation. We find convergent evidence from four studies that narrowly-bracketed prices encourage consumers to narrowly-bracket a transaction's anticipated benefits, and that this can cause consumers to prefer more payment events to fewer payment events.

Study 1 explores consumers' perception of costs and benefits in charitable giving. Subjects rated their likelihood of donating a daily amount or equivalent yearly amount to a charity. As in later studies, they were told that the actual donation would be automatically deducted from their monthly paychecks and the contract term was fixed. Subjects were more willing to donate to the cause under the daily frame, and they not only expected the payment to be less costly but also expected the donation to bring them more daily pleasure. Importantly, we found purchase likelihood is mediated more strongly by perceived benefits than by cost triviality.

If periodic pricing increases purchase intentions by magnifying the offer's benefits, then periodic pricing need not be

restricted to the domain of trivial costs. In Study 2, we find that people are more willing to pay for a luxury automobile that is priced on a daily (\$20) basis rather than on a yearly (\$7,250) basis. This result cannot be explained through the Pennies-a-Day framework because the daily cost is not trivial.¹ This suggests that something beyond assimilation with trivial costs makes periodic pricing effective. We further find that people perceive greater benefits in the daily cost condition—they think it would be “more fun” to lease the car, and this fully mediates the periodic pricing effect.

Two additional studies explore boundary conditions and, through supporting process data, provide further insight into the underlying cognitive changes when narrow costs enhance perceived benefits. Our third study finds that the donation period’s least pleasurable day of is better when a donation to Unicef is framed on a daily (\$2.50) basis than on a yearly (\$900) basis. In contrast, we find no difference in expectations about the most satisfying day. We also find, on an unrelated task, that our subjects were far more scope insensitive for (costless) donations than they were for cash equivalents. Additionally, donation scope insensitivity moderates the relationship between payment frame and willingness to pay. This study highlights that imagined rewards must have a large initial spike from the origin for periodic pricing to increase purchase intentions.

In Study 4, we manipulate, rather than measure, scope insensitivity to find further evidence that effective price partitioning requires scope insensitive benefits with a large initial onset (the big initial spike). Among other things, empathy increases scope insensitivity (Hsee, Rottenstreich and Xiao, 2005) and we find that periodic pricing increases contributions to the Komen Foundation only after reading the empathetic scenario and not the control scenario. This lends further support to the notion that periodic pricing is strongest when the transaction’s benefits possess a large initial spike.

The framework developed in this paper proposes and examines a new reason why consumers prefer to segregate, rather than integrate, costs. We find that framing a transaction’s tangible cost narrowly (e.g. per-day pricing) causes consumers to represent corresponding intangible benefits narrowly, and this often magnify the transaction’s benefits. In addition to offering a novel account of the pennies-a-day phenomenon, our model allows us to predict cases when periodic pricing fails despite having a trivial cost (i.e. benefits are too scope sensitive) as well as when periodic pricing succeeds despite non-trivial periodic payments.

¹ The daily price far exceeds the \$5 upper-bound suggested by previous work (Gourville, 2003), and we find that both price frames are considered equivalently nontrivial. We also conducted an ancillary study finding that a lease’s daily cost influences triviality perceptions much more compellingly than the car’s book value, which addresses the concern that \$20 may seem to be trivial relative to the price of the car.

For more information, contact: satlas13@gsb.columbia.edu

The Exception is the Rule: Underestimating and Overspending on Exceptional Purchases

Abigail B. Sussman, Princeton University, USA*

Adam L. Alter, New York University, USA

Purchases fall along a continuum from ordinary (common or frequent) to exceptional (unusual or infrequent), with many of the largest expenses (e.g. electronics, weddings) being the most exceptional. Across several studies, we provide evidence that, while people are fairly adept at budgeting and spending on ordinary items, they both underestimate their spending on exceptional purchases overall and overspend on each individual purchase. Based on the principles of mental accounting and choice bracketing, we show that this discrepancy arises in part because consumers categorize

exceptional expenses too narrowly, construing each purchase as a unique occurrence, and consequently overspend across a series of exceptional expenses. We conclude by situating the effect within existing literature, suggesting potential mechanisms, and proposing an intervention that diminishes this tendency.

We first ask participants to estimate how much they expect to spend on both ordinary and exceptional expenses in the upcoming week. A week later, we prompt them to recall how much they have actually spent. While participants can accurately predict their spending on ordinary purchases (\$99 predicted vs. \$84 spent), they underestimate their spending on exceptional purchases by nearly half (\$40 vs. \$78; interaction: $F(1, 63) = 11.13, p = .001$). This discrepancy shows a clear bias in planning for exceptional expenses that is distinct from planning for ordinary ones.

In addition to examining forecasts about the future, we investigate how much participants would spend in the moment on similar ordinary versus exceptional products. We hypothesize that spending on exceptional items will be malleable and situation-dependent while spending on ordinary items will be relatively stable across environments. In particular, we predict that evaluating exceptional products independently will lead to increased willingness to pay relative to simultaneous evaluation, but that willingness to pay for ordinary expenses will remain consistent regardless of how the decisions are bracketed. Indeed, participants were willing to pay significantly more for exceptional expenses when a series of four items were presented one item at a time than when the items were presented all at once (standardized means: -0.10 vs. 0.13). However, participants expressed the same willingness to pay for ordinary items (matched on price, specificity, similarity, etc.) regardless of their presentation sequence (-0.02 vs. -0.01 , Interaction: $F(1, 260) = 5.42, p = .02$). These findings suggest that participants naturally consider exceptional items as independent purchases while considering ordinary items as one of many. They also support the notion that consumers are committing a normative error by overspending on exceptional items relative to what they would pay on the same items if they were taking a broader view. The same error does not extend to ordinary purchases.

We propose that consumers categorize exceptional expenses more narrowly than they categorize ordinary expenses, and that considering a product to be part of a more narrow (and thereby exclusive) set of goods increases valuation of the product. We provide support for this claim by showing first that participants naturally group a list of exceptional expenses into more categories than a matched list of ordinary expenses (6.92 vs. $5.65, t(130) = 2.75, p = .007$), meaning that each exceptional item is in a group with fewer similar goods than the matched ordinary item. Next, we show that perceiving a product to be part of a narrower class of goods does lead to greater willingness to pay. We manipulate the construal of product category membership in two different ways—by priming small vs. large category membership and by manipulating the metacognitive retrieval process. In each case, people are willing to pay more for the same item when they perceive it to be part of a narrower class of goods.

Finally, we propose a method for debiasing consumers and show that people will spend less on exceptional items when they are reminded of additional items that are similar to the specific expense being considered, encouraging a broader categorization of the item. Participants who listed times in the prior year when they have given people presents stated that they would be willing to pay significantly less on a future gift purchase than those in a control condition ($\$37$ vs. $\$46, t(54) = 2.37, p < .03$). They also stated a greater focus on budgetary issues rather than other factors associated with the gift. Thus, encouraging people to broadly bracket the exceptional expense as part of a larger set of special purchases can mitigate overspending.

Mental accounting influences which items people purchase and how much they will spend on each item. A better understanding of how people budget for exceptional expenses, resulting biases, and remedies for these biases will have important consequences for consumer spending and welfare.

For more information, contact: asussman@princeton.edu

Price Discounting for Emotional Impact

Aylin Aydinli, London Business School, UK*

Marco Bertini, London Business School, UK

The process by which consumers evaluate and respond to price promotions is generally thought to be a cognitive process (e.g. Inman, McAlister, and Hoyer 1990; Inman, Peter, and Raghurir 1997). Emotions are seldom considered, unless they are the consequence of a process that is still deliberate (Chandon, Wansink, and Laurent 2000; Raghurir, Inman, and Grande 2004). In contrast to these views, we demonstrate that price promotions increase reliance on emotional responses, shifting consumer preferences towards goods with higher emotional content.

In our theory, consumer behavior is determined by an interaction between cognitive and affective processes (Loewenstein and O'Donoghue 2007). We propose that a price promotion is likely to influence the relative dominance of the two processes by lowering the stakes in the decision environment and therefore reducing the motivation of consumers to engage in deliberative thinking. As the relative importance of cognitions diminishes, affect takes control of behavior, and feelings are more likely to be relied on as inputs in judgments and decisions.

Consistent with our hypothesis, we found that price promotions increase the weighting of affective inputs in judgments and decisions, shifting consumers' preferences towards affectively superior options. The results of our experiments supported our conceptualization about the role of processing motivation in bringing about the observed preference shifts. When motivation to deliberate was dispositionally high or when the weight attached to cognitions was increased by explicit instructions, participants' preferences were unaffected by the price promotion. The results rule out alternative explanations including mood and justification.

In Experiment 1, we asked participants to choose between an affectively superior Snickers Chocolate Bar and a cognitively superior Nature Valley Granola Bar. The experiment manipulated a single between-subjects factor, promotion (full price vs. price discount). Participants saw the two snacks with either a full price of 80p or a reduced price of 40p (50% off). After they made their choices and paid the experimenter for their chosen snack, participants indicated the extent to which they relied on their feelings and cognitions and were asked to recall features of the two snacks that they studied before. The latter served as a cognitive elaboration measure in order to infer processing motivation. Consistent with our hypothesis, a logistic regression analysis revealed a significant main effect of price discount ($p < .01$). As such, the choice of the affectively superior Snickers Bar was higher when the snacks were offered with a price discount than when they were offered at full price. Importantly, participants rated their choices as having been driven more by affect in the presence of a price promotion than in its absence. As expected, a price discount reduced processing motivation such that participants in the price discount condition recalled less number of features than participants in the full price condition. Finally, we observed that the promotion manipulation did not influence participants' level of guilt or mood, suggesting that the observed effect operates independently from justification and elevated mood.

In Experiment 2, we wanted to replicate the results of the first experiment in a different setting and explore the underlying mechanism driving our effect. Specifically, we tested whether our effect was due to reduced processing motivation. Prior research suggests that an individual's need for cognition (NFC), one of the determinants of the motivation to process information, influences reliance on feelings. Thus, we proposed that a price promotion increases preference for the affectively superior option for low NFC individuals, while high NFC individuals' preferences would be unaffected by the promotion. The experiment employed a 2 (promotion: present vs. absent) x 2 (NFC) mixed design.

Participants were asked to indicate their preference between an affectively superior resort room and a cognitively superior resort room which were both offered either with a 30% discount or at full price. The results of a moderated regression analysis revealed the hypothesized interaction of promotion and NFC ($p < .02$). The spotlight analysis showed that the price promotion increased relative preference for the affectively superior room only for low NFC individuals (who are less motivated to engage in systematic thinking), while high NFC individuals' preferences were unaffected by the promotion.

Experiment 3 tries to clarify the underlying mechanism further by manipulating the weight attached to feelings versus cognitions. We examined whether the shifts in preferences would go away if participants were instructed to use their cognitions as basis of their decisions. As such, participants were instructed to use either a feeling-based process or a reason-based process as they were creating a list of 10 DVDs from a list of cognitively superior 'should' movies and affectively superior 'want' movies belonging to an online DVD rental service which either did or did not offer a promotion. The experiment employed a 2 (promotion: present vs. absent) x 2 (judgment process: feeling-based instructions vs. reason-based instructions) between-subjects design. The results revealed a two-way interaction between promotion and process instruction ($p < .03$). Planned contrasts showed that when instructed to rely on their feelings, participants preferred the affectively superior DVDs more strongly in the presence of a price promotion than in its absence. However, when instructed to rely on their reason and logic, their relative preferences were not different across the two promotion conditions. Further, participants' self-reported reliance on feelings versus cognitions mirrored their relative preferences, providing convergent support for our predictions.

To complement our experimental findings, we analyzed a data set from a daily deal site, which covered 846 daily deal promotions sold between May 2010 and May 2011. Based on a pretest, we scored the deal categories in our data set in terms of their hedonic content. An econometric analysis of deal purchases revealed that for deals with high hedonic ratings, sales increase in the percent discount, whereas for deals with low hedonic ratings there was no significant effect of the discount level.

Overall, these experiments demonstrate the effect of price promotions on consumers' reliance on affective vs. cognitive processing strategies and how this would influence their preferences and behaviour. Our findings highlight the importance of understanding the guts of consumers' reactions to price promotions.

For more information, contact: aaydinli.phd2008@london.edu

When Desire is Stronger than Debt Aversion: Enticing Consumers with Interest-Free Financing Deals

Johannes C. Bauer, University of St. Gallen, Switzerland*

Vicki G. Morwitz, New York University, USA

Thomas Rudolph, University of St. Gallen, Switzerland

Often when consumers tighten their belts and reduce spending, retailers and credit card companies offer special sales promotions and financing deals to stimulate buying (New York Times, 2010). In particular, interest-free financing has recently gained popularity (Los Angeles Times, 2001). By offering the possibility to pay for high-priced products with monthly installments and no interest charges, retailers hope to overcome consumers' financial and psychological barriers to buying. For example, Apple offers interest-free financing for 12 (6) months on purchases of US\$999 and above (<US\$999). Similarly, Europe's leading consumer electronics retailer Media Markt uses interest-free financing to boost sales. By advertising the aggregate selling price (e.g. "€1199⁰⁰") together with the monthly installment (e.g. "Only €49⁹⁹ per month"), Media Markt hopes to make their products appear more affordable and entice reluctant

consumers to buy (e.g. Gourville, 1998). Though interest-free deals can save money (cf. time-value-of-money-concept), they are often regarded as consumer traps (e.g. Kiplinger, 2006) because they encourage impulsive buying and because of their exorbitant penalty interest rates (up to nearly 30%) for defaults. This is dangerous for financially constrained households and may have contributed to the rise in personal bankruptcies (U.S. Congress' Joint Economic Committee, 2009). So far, however, there has been no academic research on consumers' reactions to interest-free deals.

Our research goal is to investigate the effect of interest-free deals on consumers' purchase and financing decisions. In three experiments, we show that consumers' reactions (evaluative judgments, emotions, behavioral intentions, choices) to interest-free deals depend on (1) their personal financial situation, (2) how the deal is framed, and (3) consumers' impulsivity. Using hypothetical financial scenarios (Soman & Cheema, 2002), we manipulate consumers' financial situation as either liquidity-unconstrained or constrained. Besides providing information about their monthly income and their usual monthly expenses, subjects are told that their savings account balance is either US\$3,200 (unconstrained) or US\$200 (constrained). Subjects then read a purchase situation designed to evoke a self-control dilemma about whether to buy a desired product (a HDTV) which is neither needed nor easily affordable (US\$1199⁰⁰). Rather, subjects are told that the new HDTV would be a luxury. After reading the scenario, subjects are shown one of three advertisements which provide information about the HDTV's product features and either (1) its aggregate selling price (no deal condition), or (2) its aggregate selling price and information about a 0% APR special financing promotion over 24 months (0% deal without monthly installment condition), or (3) its aggregate selling price and the corresponding monthly installment (MI) of US\$49⁹⁹ if financing the HDTV using the 0% APR special financing promotion (0% deal with advertised monthly installment condition).¹ Conceptually based on research on mental accounting (Thaler, 1985; Prelec & Loewenstein, 1998), self-control (e.g. Hoch & Loewenstein, 1991; Baumeister, 2002), impulsive behavior (e.g. Rook & Fisher, 1985; Rook, 1987; Ramanathan & Williams, 2007), and the "pain of paying" (e.g. Gourville, 1998; Soman, 2001; Morewedge et al., 2007; Thomas et al., 2011), we derive and test hypotheses concerning consumers' cognitive, emotional, and behavioral reactions to interest-free deals.

In study one, we use a 2 (financial situation: unconstrained vs. constrained) x 2 (deal: no deal vs. 0% deal with MI) between-subjects design and show that interest-free deals increase purchase intentions for constrained consumers ($p=.018$), but not for unconstrained consumers ($p=.662$; 2-way interaction $p=.049$). This study provides the first empirical evidence for public policy makers' concern that interest-free deals boost sales especially of liquidity-constrained consumers. It also shows that unconstrained consumers, who can benefit economically from these promotions, are less likely to use them.

In study two, we examine whether these results are driven by the mere presence of interest-free financing or by the salience of low monthly payments. In a 2 (financial situation: unconstrained vs. constrained) x 3 (deal: no deal vs. 0% deal without MI vs. 0% deal with MI) between-subjects design, we extend study one's findings by showing that unconstrained consumers' purchase intentions increase with interest-free financing but only when the deal does not make MI salient ($M_{\text{Unconstrained/No deal}}=4.42$ vs. $M_{\text{Unconstrained/0% deal without MI}}=5.19$; $p=.009$). They are less likely to buy when MI is salient ($M_{\text{Unconstrained/0% deal without MI}}=5.19$ vs. $M_{\text{Unconstrained/0% deal with MI}}=4.63$; $p=.057$). In contrast constrained consumers' purchase intentions significantly increase as a reaction to both interest-free financing per se and the advertised monthly installment ($M_{\text{Constrained/No deal}}=3.22$ vs. $M_{\text{Constrained/0% deal without MI}}=3.82$ vs. $M_{\text{Constrained/0% deal with MI}}=4.70$; all $p<.05$; 2-way interaction $p=.001$). Whereas making the monthly installment salient reduces the "pain of paying" of constrained consumers by emphasizing relatively small payments (Gourville, 1998), it increases unconstrained consumers' "pain of paying" by shifting their attention from promotion-related benefits to the deal's repayment obligation (Prelec & Loewenstein, 1998). Furthermore, constrained consumers have strong mixed emotions to buying with interest-free deals (joy, worry, and negative self-conscious emotions). Using (moderated) mediation analyses, we provide insights into the underlying psychological processes and show that (1) feelings of joy and (2) perceptions of

affordability are important mediators of consumers' purchase decisions.

In study three, we examine how impulsivity affects reactions to these deals. The procedure is identical to study one, except that we additionally (1) incorporate a choice task (choice between two HDTVs differing in screen size and price) and (2) measure consumers' impulsivity (Rook & Fisher, 1995). We replicate and extend the previous results by showing (with spotlight analyses; Fitzsimons, 2008) that constrained consumers' responses to interest-free deals are driven by high impulsivity individuals. Compared to their prudent counterparts, impulsive consumers in constrained financial situations were more likely to buy ($p=.002$; 3-way interaction OLS $p=.013$) and to choose the more expensive product ($p=.056$; 3-way interaction logistic regression $p=.028$).

We contribute to behavioral pricing by providing a first demonstration of consumers' reactions to interest-free deals. Our findings are also relevant to public policy because of the potential negative effects of interest-free deals on consumer welfare.

¹ For simplicity, we will refer to the three deal conditions as "no deal," "0% deal without MI," and "0% deal with MI."

For more information, contact: johannes.bauer@unisg.ch

3.7 Conversations: Feelings

Room: Mesquite 1

Aparna Labroo, University of Toronto, Canada

Michel Tuan Pham, Columbia University, USA

Patti Williams, University of Pennsylvania, USA

4.1 Symposium: Social Environment and Happiness

Room: Four Seasons Ballroom 1

Chair: Merrie Brucks, University of Arizona, USA

All Eyes on You: Public Consumption Contexts and Hedonic Adaptation to Products

Sunaina Chugani, University of Texas at Austin, USA*

Julie Irwin, University of Texas at Austin, USA

Happiness (and unhappiness) with purchases generally diminishes over time: positive purchases become less positive and negative purchases become less negative (Frederick & Loewenstein, 1999); this process is often termed “hedonic adaptation”. We examine the effect of an everyday social force on adaptation by asking how the presence of others while experiencing a product affects adaptation to that product. Four studies show that public contexts impede adaptation by inducing consumers to additionally experience products through the eyes of others, keeping the initial happiness with a product purchase fresh in consumers’ minds.

Study 1: In Study 1 participants recalled either a positive or negative product purchase (between-subject manipulation of purchase valence), reported their current happiness with the product, and provided ratings for how often the product is seen by others.

There was a significant purchase valence X public exposure interaction ($F(1,148)=4.29, p<.05$): the difference between happiness with positive versus negative products increased as the public/private ratings increased. Because adaptation translates to a moderating of happiness over time, the more extreme happiness values at high levels of public exposure suggest that hedonic adaptation is impeded when public exposure is high.

Study 2: Study 2 tracked real-time adaptation to a product rather than imputing it from current variance in happiness. Participants were either (1) out of view from each other with dividers between lab stations (private condition) or (2) allowed to be seen by others, with no dividers (public condition). We manipulated cognizance of public context by asking participants either to report on an experience where they were the center of attention (priming cognizance of public context) or to describe a picture of a mundane fish or lamp (neutral prime). We then gave participants one of 9 products and tracked adaptation by measuring initial happiness and happiness at two other subsequent points.

There was a 4-way interaction between consumption context, public context cognizance, time period, and initial happiness ($F(1,188)=7.95, p<.01$). When public context cognizance was primed, the interaction between time period, initial happiness, and consumption context was significant ($F(1,188)=6.64, p=.01$), and this interaction was not present in the neutral prime condition ($F(1,188)=2.46, NS$). For those who were primed with public context cognizance (but not for those who received the neutral prime), a public context kept those who were initially happy with their product happy for a longer period of time ($F(1,188)=6.75, p=.01$) and those who were initially unhappy with their product unhappy for a longer period of time ($F(1,188)=3.21, p=.07$) than a private context. In sum, in a public context, with a public prime, adaptation was impeded.

Study 3: Study 3 replicated the methodology of Study 2. However, rather than priming cognizance of public contexts, we measured participants’ Self Monitoring scores. High self monitors are more chronically cognizant of being observed in public than are low self-monitors (Lavine & Snyder, 1996; Snyder & DeBono, 2008). Thus, we would expect SM scores to operate similar to the prime used in Study 2, providing triangulating evidence for our public cognizance moderator. We collected happiness at two time points.

There was a significant three-way interaction between SM score, consumption context, and initial happiness with the product on happiness at Time 2 ($F(1,299)=4.23, p<.05$). Consumption context had a significant effect among high self monitors (fitting model at high SM score: consumption context X Time 1 happiness interaction, ($F(1,299)=4.25, p<.05$) but not among low self monitors (fitting model at low SM score: consumption context X Time 1 interaction, ($F(1,299)=.91, NS$). For instance, a public consumption context kept high (but not low) self monitors who were initially happy with their products happier for a longer period of time ($F(1,299)=7.27, p<.01$) than did a private context. Thus, Study 3 again showed, using a combination of our manipulated public/private variable and a measured variable, that the more consumers are cognizant of public contexts the more slowly they adapt to products.

Study 4: Study 4 tests our mechanism directly by manipulating whether participants are cued to see their products through others' eyes (others' eyes manipulation). We placed all participants in a public context and asked them to report initial happiness with one of 8 products we gave them. Then, half reported how happy they thought *others* in the room thought they were with their product (others' eyes prime), and the other half answered filler questions (neutral prime). Participants then reported their happiness with the product two more times throughout the session so that we could track adaptation.

There was a significant "others' eyes" manipulation X time period X initial happiness interaction on happiness at a given time period ($F(1,136)=5.22, p<.05$). Participants in the neutral prime condition experienced adaptation to their products over time (significant time period X initial happiness interaction, ($F(1,136)=15.44, p<.001$) but participants who were cued to look at their product through others' eyes did not exhibit adaptation at all (non-significant time period X initial happiness interaction, ($F(1,136)=.95, NS$).

Summary: Four studies provide evidence that public (vs. private) consumption contexts impede adaptation among individuals who are aware of being in a public context by causing consumers to view their products not only through their own eyes but also through the eyes of others.

For more information, contact: sunaina.chugani@phd.mcombs.utexas.edu

Can Purchases Make Us Happier? Perhaps, If We Tell Others About Them

Wilson Bastos, University of Arizona, USA*

Merrie Brucks, University of Arizona, USA

Recently, the relation between purchases and happiness has received increased attention from academics and the popular press (Flatow, 2009; Pelletier, 2009). A common finding is that experiential purchases are better than material purchases at advancing happiness (Van Boven & Gilovich, 2003). A question that deserves further attention, however, is: What mechanism(s) underlies such effect?

Aiming to address that question, we drew on the disclosure and social sharing literatures to argue that consumers of experiences (e.g., taking a kayaking trip) are more likely than consumers of objects (e.g., buying a kayak) to share (i.e., tell others about) their purchases and to, in turn, enjoy the benefits of such activity (hypothesis 1 below). To provide support for this proposition, two questions should be addressed: 1) Why would people be more inclined to share experiential than material purchases?, and 2) How beneficial is sharing?

With regards to the first question, previous research (Van Boven, Campbell & Gilovich, 2010) shows that individuals

form less favorable impressions of people associated with material (vs. experiential) purchases, and enjoy having conversations about experiential purchases more than about material purchases. Van Boven et al. thus conclude that “being associated with materialistic rather than experiential pursuits can pose a barrier to successful social relationships (p. 560).” Accordingly, we expect that people are more inclined to share their experiential (vs. material) purchases; and that such behavioral difference is driven by their expectations that sharing experiential (vs. material) purchases will lead others to form more favorable impressions about them (hypothesis 2 below).

Answering the second question, research suggests that sharing leads to far-reaching benefits. For example, sharing provides the teller with greater positive affect and well-being (Gable, Reis, Impett, & Asher, 2004). Additionally, it brings interpersonal rewards in the form of teller’s greater liking for the listener as a result of having disclosed to him/her (Collins & Miller, 1994). Lastly, sharing benefits the disclosed event itself. It helps one achieve a better understanding of the shared event (Finkenauer & Rime, 1998), “creates an opportunity for reliving and reexperiencing the event” (Gable et al. 2004, p. 229), and “make[s] the event both more memorable to oneself and to others (Langston, 1994, p. 1113).” Harrigan (2001) summed the relevance of sharing by stating, “Happiness held is the seed; happiness shared is the flower”. So, compelling evidence indicates various benefits of sharing. What remains unknown, however, is whether post-purchase sharing affects a purchase’s ability to advance happiness.

Based on the above-mentioned findings, we argue that consumers of experiential (vs. material) purchases are more inclined to share the details of their purchase with others and, in turn, more likely to draw rewards (i.e., happiness) from doing so (H1), and that those consumers’ expectations for how they will be regarded by others explain the difference in inclination to share (H2). This mediated-mediation can be formally hypothesized as:

H1: Sharing will mediate the effect of purchase type on happiness.

H2: Regard will mediate the effect of purchase type on sharing.

Experimental Design: To test our two hypotheses, we conducted an experiment with 95 participants who were randomly assigned to one of two conditions: material vs. experiential purchase. Participants were given instructions of what constitutes a material (or experiential) purchase and were asked to recall and write about a fifty-dollar personal purchase that reflected the condition they were in. Next, participants answered, on 7-point Likert scales, questions related to happiness (e.g., When you think about this purchase, how happy does it make you?), sharing behavior (e.g., I would feel excited about sharing the details of my object/experience; I would want to share with others the details of my object/experience), and regard (I think the person listening to me would regard me more highly after learning about my object/experience).

Results: Our results supported hypothesis 1. Specifically, we conducted four regressions (a-d) and a Sobel (1982) test of mediation and found that (a) experiential purchases advanced significantly more happiness than did material purchases ($F(1, 94) = 3.97, p = .04$). Further, significant effects were found when (b) the mediator (i.e., sharing) was regressed on the IV (i.e., purchase type) ($F(1, 94) = 8.73, p = .004$), and (c) the DV (i.e., happiness) was regressed on the mediator ($F(1, 94) = 18.49, p < .001$). Importantly, (d) when happiness was regressed on both purchase type and sharing the previously significant main effect of purchase type on happiness became nonsignificant ($p = .36$). In line with this, our Sobel test showed a significant result ($z = 2.34, p = .01$). As hypothesized, these results suggest that sharing mediates the effect of purchase type on happiness.

To test hypothesis 2, we conducted a similar set of analyses and found significant effects for (a) purchase type on sharing ($F(1, 94) = 8.73, p = .004$), (b) regard (i.e., the mediator) on sharing ($F(1, 94) = 10.75, p = .001$), and (c) purchase type on regard ($F(1, 94) = 3.92, p = .05$). Revealingly, when both purchase type and regard were included in the model, the relation between purchase type and sharing was attenuated ($F(1, 94) = 2.40, p = .01$). Finally, the Sobel

test indicated a marginally significant effect ($z = 1.66, p = .09$). These results support the premise that regard plays at least a partial mediating role in the effect of purchase type on sharing.

According to these analyses, the following picture emerges from our research: Experiential purchases are better than material purchases at advancing happiness (replicating Van Boven & Gilovich, 2003), and sharing mediates that effect. The difference in sharing is explained, in turn, by how people expect to be regarded as a result of their sharing. To our knowledge, this is the first research in marketing that examines the role of sharing in advancing consumer happiness. Moreover, these findings illustrate how important post-consumption events are for happiness. This is especially relevant given previous evidence suggesting that pre-consumption states (e.g., a sense of anticipation), but not post-consumption ones, are effective in generating happiness (Nawijn, Marchand, Veenhoven, & Vingerhoets, 2010).

For more information, contact: wneto@email.arizona.edu

I Am What I Do, Not What I Have: The Role of Experiential and Material Purchases in Defining the Self

Thomas Gilovich, Cornell University, USA

Travis J. Carter, University of Chicago, USA*

Can money buy happiness? Generally, the answer is thought to be no. However, it may simply be that people are not spending their money wisely. Previous research suggests that greater happiness can be found in experiential purchases (e.g. meals at restaurants, vacations, and concerts) than with material purchases (e.g. clothes, jewelry, and gadgets; Carter & Gilovich, 2010; Van Boven & Gilovich, 2003). One of the cited reasons for this difference in satisfaction is that experiences make a greater contribution to the “social self” than do material possessions. So far this has not been empirically demonstrated. The present research aims to do just that, as well as to examine whether this is qualified by trait materialism.

Why might experiential purchases form a greater part of the social self than material possessions? We believe there are several reasons, but one of the most important is that experiences, being largely intangible, exist primarily in memory, whereas possessions are largely tangible objects that persist in the physical world. It is partly because they persist in memory that experiences become more truly part of who we are, as it is our collection of memories and experiences that define us.

If experiences do form a larger part of the social self, why would they be more satisfying than possessions? First, being physical objects, material possessions are subject to the ravages of time. Clothes get dingy and torn, mp3 players become obsolete, cars break down. Experiences, on the other hand, may actually see their greatest benefit over time (Carter & Gilovich, 2010). Indeed, people tend to take the “rosy view” of experiences over time, even though the actual experience might be fraught with disappointing moments (Mitchell et al., 1997; cf. Nicolao, Irwin & Goodwin, 2009).

Second, and related to the first, as part of the social self, memories of purchased experiences can be embellished using the same sorts of motivated biases that allow people to maintain positive self-views (e.g. Dunning, 2005). Being intangible, experiences may be more open to construals or (re)interpretation than possessions, an essential part of the process of motivated reasoning (Kunda, 1990). It may be that evaluating the quality of one’s experiences is, in essence, evaluating aspects of oneself, and as a result, people are motivated to see those experiences in a positive light, particularly over time.

We first wanted to test whether people do, in an almost literal sense, think of their experiential purchases as being closer

to their social self than their material purchases. Participants were first asked to briefly describe 8 important purchases they had made, four material, and four experiential. Borrowing a page from work on the different conceptions of self in independent and interdependent cultures (Markus & Kitayama, 1991), we showed participants a sample diagram where circles representing different family members were plotted around a Self-circle such that the proximity of the family member represented the degree of overlap with the self. Participants were asked to follow a similar logic in plotting each of the eight purchases around a central Self-circle. We measured the distance from the center of each purchase's circle to the center of the Self-circle. As predicted, participants plotted their experiences closer to the Self than they did their possessions, paired $t(47) = 2.09, p < .05$. This result was not qualified by participants' trait materialism.

Next, we wanted to know if people would choose to use their experiential purchases more than their material purchases when describing themselves. Again, participants were asked to recall and briefly describe 10 purchases, five material, and five experiential. They were then asked to tell their life story, and were encouraged to incorporate into the narrative the purchases they had previously listed where appropriate. As predicted, participants included more of their experiential purchases (40%) than their material purchases (22%) into their life narrative, paired $t(89) = 5.94, p < .001$. Again, participants' level of materialism did not qualify these findings.

Most importantly, we wanted to know whether these findings could help explain why experiences tend to be more satisfying than possessions. We asked one sample of participants whether a stranger would have greater insight into their "true self" as a result of knowing about their experiential or material purchase history. As predicted, participants believed that knowledge of a their experiences was the clearer window to their self, $t(120) = 4.08, p < .001$. This belief was also significantly correlated with participants' greater satisfaction with a specific experience over a specific possession ($r = .19, p < .05$).

One consequence of experiences being a greater part of the self is that people would be less willing to give up those memories, as it would mean deleting a part of the self (Gilovich, 1991). In a final study, participants were asked to recall and briefly describe either a material or experiential purchase, and then to imagine that they could go back in time and swap out their memories of that purchase for memories of a different purchase. Participants were more satisfied with their purchases in the experiential than in the material condition. Participants in the material condition were both less satisfied with their purchases, $t(58) = 2.22, p < .04$, and more willing to exchange their memories than participants in the experiential condition, $t(58) = 2.88, p < .01$. This difference in how closely participants clung to the memories of their purchase mediated the difference in satisfaction between conditions, Sobel $z = 1.99, p < .05$.

These results, taken together, suggest that people do indeed hold their experiences more closely to their social self than their possessions, and that this tendency helps to explain why, ultimately, experiences tend to be more satisfying than possessions. What's more, it was not only those low in materialism who show this tendency, suggesting that there may be a disconnect between what materialists believe will be meaningful to them, and what actually is. Indeed, from many angles, it seems that purchasing experiences will ultimately prove a better investment for one's well-being.

For more information, contact: travis.carter@chicagobooth.edu

It's the Company that Counts: Enhancing the Value of Experiential and Material Possessions through Social Consumption

Peter A. Caprariello, University of Rochester, USA*

Harry T. Reis, University of Rochester, USA

One reliable way to elevate happiness appears to be spending money on life experiences over material possessions (Van Boven & Gilovich, 2003). Van Boven and Gilovich defined experiential purchases as “events or series of events that a person lives through” (2003, p. 1194). In a series of studies, they found that people reported greater happiness by spending their discretionary money – money spent with the intention of increasing happiness – on experiences rather than on material possessions. Importantly, this effect replicated in a nationally representative sample and has been documented in retrospective, concurrent, and longitudinal reports of well-being (Howell & Hill, 2009; Nicolao, Irwin, & Goodman, 2009).

The present research proposes that distinguishing spending along a materialism-experientialism dimension overlooks another important difference between life experiences and material possessions: Typically, experiences are more likely than material things to involve other persons. Extensive research shows that social relations, especially those that foster feelings of connectedness, are influential sources of happiness (e.g., Argyle, 1999; Berscheid & Reis, 1998; Baumeister & Leary, 1995; Reis, Clark, & Holmes, 2004). We suggest that the social interaction involved in experiences is central to their benefits relative to material possessions. If correct, happiness would be obtained indirectly from experiential activities, and directly from engaging in interpersonal activities.

On the other hand, material possessions tend to be associated with self-oriented motives, such as a desire to signal uniqueness (Berger & Heath, 2007), status (Griskevicius, Tybur, Sundie, Cialdini, Miller, & Kenrick, 2007), and identity (Belk, 1988), or to bolster self-esteem (Escalas & Bettman, 2003). Thus material possessions in and of themselves tend to lack the central quality of experiences that make them amenable to improving happiness – the involvement of others.

In Study 1, we tested how the happiness benefits of experiential buying varied as a function of social involvement. Here, 327 participants were randomly assigned to pick between 1 of 2 kinds of purchases – between material objects and social experiences, material objects and solitary experiences, and solitary and social experiences. When comparing material purchases to social experiences, participants were significantly more likely to indicate that social experience would make them happier, $M = .70$, $\chi^2(1) = 151.36$, $p < .001$. When comparing material purchases to solitary experiences, participants were significantly *less* likely to indicate that solitary experiences would make them happier, $M = .38$, $\chi^2(1) = 54.22$, $p < .001$. Finally, when comparing solitary to social experiences, participants were significantly more likely to indicate that social experiences would make them happier, $M = .85$, $\chi^2(1) = 465.08$, $p < .001$. These results make clear that having experiences with others, rather than alone, is necessary for deriving happiness from the experience. In fact, when presented with the option of a material possession or an experience *without* others, participants favored the material good over the experience.

Nevertheless, these results raise the question: Can the value of material possessions be enhanced by involving others? Some material possessions can certainly *facilitate* social interactions (e.g., board games, sports equipment, and stereo systems for family rooms). Furthermore, people strategically act on this knowledge by spending money for this purpose (e.g., to re-affiliate following rejection; Mead, Baumeister, Stillman, Rawn, & Vohs, 2011). If social interactions are as critical to happiness as research suggests, then material possessions obtained in the service of enhancing social interaction may make people happier than material objects obtained primarily for personal use. From this reasoning, we propose that proper understanding of the happiness benefits of life experiences versus material possessions requires consideration of whether one’s purchases are meant to be social or solitary. Crossing these two dimensions results in four possibilities: Social experiences, social possessions, solitary experiences, and solitary possessions. We hypothesize that the social-solitary dimension better predicts anticipated happiness from spending than the materialism-experientialism dimension.

In this study, 308 participants were given definitions of discretionary spending and were asked to think about the last time they spent their discretionary money to further their happiness. No other leading instructions were given. After describing the purchase and rating their happiness with it, participants self-coded the purchases into experiential-material and social-solitary categories. Based on this four-category conceptualization, we found evidence for the effects of social involvement on happiness but not for the effects of experientialism. In other words, we found that, collapsing across self-coded material and experiential purchases, the effect of socially experiencing purchases on happiness was significant, $F(1, 295) = 10.76, p < .001$, such that social purchases were recalled as making people happier ($M = 3.89$) than purchases for solitary consumption ($M = 3.45$). Neither the main effect of experiential-material consumption nor the interaction was significant $F < 1.0, F(1, 295) = 2.11, ns$, respectively.

To ensure that our results were not biased by participants rating themselves, three coders, blind to conditions, rated every purchase along the same two dimensions as before. We found the same results with coder ratings as we had found with participant ratings, $F_{social-solitary}(1, 297) = 6.29, p = .01$, all other F s < 1.0 , with social experiences ($M = 3.77$) trumping solitary experiences ($M = 3.45$). In this study, therefore, we extended prior research by showing that the happiness benefits of social involvement, whether for experiential or materialistic purchasing, trump the happiness benefits of experiential buying per se. Furthermore, these results cannot be explained by socially desirable responding, because participants were not led to think about the potential value or drawbacks of presenting themselves either experientially or materialistically (Van Boven, Campbell, & Gilovich, 2010).

Overall, these results are consistent with recent findings that spending money on others makes people happier than spending money on oneself (Dunn et al., 2008). Although evidence suggests that merely reminding people of money distances the self from others (Vohs, Mead, & Goode, 2006), overcoming a self-reliant mindset to spend money to do or have things with others, rather than to do or have things strictly for oneself, may be an important outlet for promoting sustainable happiness (Lyubomirsky, Sheldon, & Schkade, 2005).

For more information, contact: peter.caprariello@rochester.edu

4.2 Individual Papers: My Way: The Consumer's Self

Room: Four Seasons Ballroom 2

Chair: Jesse Itzkowitz, Yeshiva University, USA

Of the Bold and the Beautiful: Feeling Beautiful Leads to Bolder Choices

Zixi Jiang, Peking University, China*

Margarita Gorlin, Yale University, USA

Jing Xu, Peking University, China

Ravi Dhar, Yale University, USA

Beauty has been universally prized throughout history. It has been associated with a host of positive qualities: beautiful people are believed to be more socially competent and more intelligent, to possess more favorable personality traits, and to have more successful life outcomes (Dion, Berscheid, and Walster 1972; Eagly et al. 1991). Despite the societal notion that “beautiful is good,” the question of how people’s perceptions of their *own* physical attractiveness impact their decision making has been relatively unexplored. We propose that boosting people’s perception of their own physical attractiveness through priming can make people more confident, which will in turn lead people to make more self-expressive choices.

Previous literature in choice theory suggests that people tend to gravitate to compromise (options that have intermediate values on both dimensions) and all-average options (options that are average on all dimensions) when they are experiencing choice difficulty and cannot express a clear preference (Dhar and Simonson 2003; Simonson and Tversky 1992). Additionally, compromise options are perceived to be more conventional (Briley, Morris, and Simonson 2000) and less likely to be criticized (Maimaran and Simonson 2011; Simonson 1989), so choosing these options indicates the decision-makers' inability to declare a preference and take a stand. Combining the literature on choice with our prediction that priming people with beauty will boost their confidence, we propose that a feeling of enhanced physical attractiveness will provide decision makers with the confidence to express their preferences, leading them to make self-expressive, less conventional choices. People who feel more beautiful should be more likely to choose enriched over all-average options and extreme over compromise options. Additionally, we extend self-expressive choice to the domain of defaults, hypothesizing that people who feel more beautiful will be more likely to move away from the default than control participants.

We tested our predictions in a series of four studies. In study 1 we investigated the effect of one's own perceived physical attractiveness on choice of enriched versus all-average options. We boosted the feeling of physical attractiveness through a mindset prime. Participants in the beauty condition listed three objects or situations that make them feel physically attractive and then elaborated on two of those items, whereas control participants listed three things they did during the past week and elaborated on two. Participants then faced two all-average/enriched scenarios, a vacation and a roommate scenario (adapted with changes from Shafir 1993). Those primed with beauty were more likely than control participants to choose the enriched over the all-average option (69.7% vs. 40.6% in the vacation and 51.5% vs. 25.0% in the roommate scenario, both $p < .05$). Additionally, participants primed with beauty perceived themselves as more physically attractive on a 9-point scale than control participants, indicating that the beauty manipulation was successful.

In study 2 we used another method of priming beauty and extended our findings to the compromise effect. We induced feelings of enhanced attractiveness by asking participants to look at unattractive faces, under the cover story of judging familiarity. Control participants, on the other hand, evaluated the familiarity of city scenes (manipulation based on Cash, Cash, and Butters 1983). Following the prime, participants chose among three options in two compromise scenarios: a class and a roommate scenario. Participants exposed to unattractive faces both rated themselves as more attractive than control participants and, as predicted, were less likely to choose the compromise option both in the class (13.9% vs. 43.8%, $p < .01$) and in the roommate (27.8% vs. 65.6%, $p < .01$) scenarios.

In study 3 we replicated the results of Study 2 and tested the mechanism behind the effect. Students completed the same priming manipulation as in Study 1 and then made choices in the two compromise scenarios used in Study 2. Participants also rated their self-efficacy on an 8-item, 7-point generalized self-efficacy scale (Bandura 1982). Those primed with beauty were less likely to choose the compromise option in both the class (19.4% vs. 41.7%, $p < .05$) and roommate (44.8% vs. 63.3%, $p < .05$) scenarios and also reported higher self-confidence than control participants ($M = 5.99$ vs. $M = 4.84$, $p < .01$), indicating greater confidence in the ability to achieve their goals. Most important, self-confidence fully mediated the effect of the beauty prime on choice, indicating that participants who felt more physically attractive made bolder choices because of their increased confidence in their abilities.

Finally, in study 4 we extended the results of the previous studies to the domain of default choices and replicated our mediation finding in this domain. Participants first completed the same mindset prime as in Study 1, then faced two choices that tested their tendency to choose the default option, a highway safety funds allocation choice and an investment decision choice (adapted with changes from Samuelson and Zeckhauser 1988), and finally completed a 3-item self-efficacy scale. Participants primed with beauty were less likely to choose the default option in both the

highway (48% vs. 68%, $p < .05$) and the investment (37.8% vs. 56.1%, $p < .05$) scenarios. Once again, self-confidence fully mediated the observed effect of the beauty mindset prime on choice.

We demonstrate that making people feel more beautiful increases their confidence and their ability to express themselves, leading to increased preference for enriched over all-average options, extreme over compromise options, and for departure from the status-quo. In sum, temporarily boosting beauty leads to greater choice of self-assertive options.

For more information, contact: margarita.gorlin@yale.edu

Choosing Differently But in the Same Way: How Self Impacts Beliefs About Others

Yesim Orhun, University of Michigan, USA

Oleg Urminsky, University of Chicago, USA*

Research on belief formation has argued that people's beliefs about others are strongly affected by their own choices (e.g. false consensus, Ross, Greene and House 1977). The literature on social projection has generally demonstrated that endorsement of an attitude correlates with higher estimation of the degree of endorsement in a population, particularly when perceived similarity to the reference population is high (e.g. Ames 2004). This literature has largely concluded that there is little or no projection of own attitudes when making estimates for an out-group population (e.g. meta-analysis by Robbins and Krueger 2005).

In contrast, we argue that, while people do not directly project their own evaluations onto out-groups (e.g. supporters of the opposing candidate in an election), they do in fact utilize their own decision process in making these evaluations, when they can draw a parallel between their own preferences and those of others. Specifically, in thinking about an out-group defined as others who have made the opposing choice, people's own evaluations of a given candidates will influence their beliefs about the opposite-choosers' evaluation the corresponding candidate. This notion of *conditional preference projection* implies that the more a voter likes their own candidate, the more they will infer that supporters of the opposing candidate like *their* own candidate.

We present data from two studies conducted during the 2008 presidential election: a two-wave national poll conducted directly before and after the first presidential debate and an incentive-compatible lab study conducted in the week before the election. We also extend our findings to more general contexts and rule out alternative accounts in four additional studies of consumers' choices and beliefs.

Across these studies, people project their evaluations (separate ratings of the choice options) in estimating the ratings of those who have made the same choice. More importantly, in estimates of the out-group of people who have chosen the opposite option of what the participant has chosen, our studies consistently demonstrate a novel effect of projecting one's evaluations onto others' corresponding evaluations. Thus, for example, we find that the higher voters rated their preferred candidate, the more they believed that supporters of the opposing candidate would rate that opposing candidate highly. Importantly, we find no consistent effect on same-candidate evaluations: the degree of liking of one's own candidate (e.g. Obama among Obama-voters) did not affect the estimated liking of that candidate in the out-group (e.g. Obama among McCain-voters). This is inconsistent with mere projection of polarization and supports our argument that the inference that occurs is a higher-level projection based on establishing a parallel between oneself and others (e.g. they support their candidate in the same way I support mine). Likewise, our findings are inconsistent with the processes proposed to account for social projection, particularly the anchoring hypothesis, which assumes that

projection does not extend to the out-group.

In Study 2, we replicate our findings for choices between consumer products which do not have negatively correlated evaluations. Specifically, participants chose between the Nintendo Wii and the Sony PS3, rated both consoles and then estimated the ratings of Wii choosers and PS3 choosers. We replicate our results, showing that a person's rating for their chosen [rejected] console affected their estimated ratings of both same-choosers' and opposite-choosers' respective chosen [rejected] console. We also confirm that the findings do not vary with consumers' category knowledge.

In Study 3, we use a similar design for consumers' ratings of posters, except that participants were randomly assigned to only make estimates for either same-choosers or opposite-choosers. We replicate our findings using this between-subjected design, and also confirm that our predicted relationships between own and others' evaluations are not moderated by people's beliefs as to others correlations between the evaluations.

In Study 4, we manipulate the salience of missing information for digital cameras (while holding the available information constant), in order to experimentally induce a difference in participants' evaluations. We replicate our results, finding that the manipulation in people's evaluations in turn affected people's beliefs about the corresponding evaluations of same and opposite-choosers. We also confirm that people characterize the evaluations of opposite-choosers as analogous to their own, that similarity in how choices are made moderates the degree of projection, and that beliefs in others' negative correlations do not moderate the results. More importantly, this study provides causal evidence for the effect of own evaluations on beliefs about others, ruling out an alternative account in which people's beliefs about others influence their own evaluations of the options.

Lastly, in Study 5, we again use digital cameras, and we track people's preferences and beliefs in two waves of surveys, a week apart. We find that changes in own evaluations, in general, relate to changes in beliefs about same and opposite-choosers' corresponding evaluations. By making information less salient in Wave 2, we also induce a systematic shift in evaluations for one of the brands, which provides another causal test of our hypotheses. We find that this within-subjects manipulation induces corresponding changes in beliefs about same and opposite-choosers' evaluations, as predicted. The repeated measures findings in this study (and in Study 1) also help rule out alternative explanations including scale bias and general lay theories of other's evaluations.

For more information, contact: oleg.urminsky@chicagobooth.edu

"What Doesn't Kill You, Makes You Stronger": Positive Effects of Self-Discrepancy on Consumer Decision Making

Kamila Sobol, York University, Canada*

Peter Darke, York University, Canada

The literature generally supports the idea that comparing oneself to idealized self-standards, such as those portrayed in marketing images, has a detrimental effect on consumer well-being and may lead to such maladaptive behaviors as eating disorders (Richins 1991; Strauman et al 1991). Self-discrepancy theory posits that when consumers become aware of an inconsistency between their actual and ideal self-concepts they experience psychological distress and negative emotions (Higgins 1987; Moretti and Higgins 1990). Other studies have shown that self-discrepancy can motivate behavior by either approaching a desired end-state or avoiding an undesired end-state (Tykocinski et al. 1994). However, no existing studies have examined how these motivated orientations influence consumer decision making.

The present research attempts to expand the self-discrepancy literature by providing evidence that while heightened

awareness of one's self-discrepancies can produce negative outcomes in the form of psychological distress, it can nonetheless improve consumer decision outcomes in other ways. Specifically, across four studies, we demonstrate that even though self-discrepancies (either self-generated or externally primed) do lower self-esteem, such perceptions nonetheless lead to stronger tendencies to self-regulate when exposed to indulgent products, encourage consumers to make consistent risk preferences for risky choices framed as gains versus losses, as well as stimulate the use of more elaborate compensatory decision rules leading to the selection of more optimal alternatives across choice sets.

In the first study, we used the Selves Questionnaire (Higgins et al. 1985), a common measure of self-discrepancy, to demonstrate that individuals who reported greater levels of inconsistency between their actual self-concept and their idealized self-standards experienced lower self-esteem ($t(72) = -2.469$; $p < .05$), but at the same time had a stronger tendency to select less indulgent options ($t(72) = 1.680$; $p < .10$) in choice sets that included deciding between a more pragmatic item versus a more indulgent option (e.g. fruit salad versus chocolate cake).

A second study using the same measure of self-discrepancy examined its effects on the consistency of risk preferences across gain/loss decision frames using a standard set of risky prospects. These prospects varied the probability of winning (or losing) money while controlling for the expected utility of the options. Consistency in risk preference is a classic means of assessing the rationality of decision making (Kahneman and Tversky 1979). Expected utility theory suggests that choices between probabilistic options with the same expected outcomes should depend purely on the individual's risk preference and should not be affected by inconsequential changes in the decision frame used, such as whether the alternatives are stated in terms of gains versus losses. However, the existing empirical literature suggests that people generally prefer risky options when dealing with potential losses and certain options when the same prospects are framed as gains (Kahneman and Tversky 1979). Study 2 showed that while this pattern of preference reversal was true for those who reported low self-discrepancies ($F(1,72) = 14.85$; $p < .01$), higher self-discrepancy led to risk preferences that did not vary across gain/loss frames ($F(1,72) = 1.65$; $p > .20$). Other findings again showed that increased self-discrepancies led to lower self-esteem ($F(1,72) = 9.770$; $p < .05$). Overall, this evidence suggests that higher self-discrepancy was associated with more rational decision making in the form of more consistent risk preferences, despite its negative effects on self-esteem.

The third study manipulated self-discrepancy rather than measuring it. Specifically, an experimental group was asked to reflect on their self-discrepancies, while a control group reflected on their morning routines. The effects of this manipulation largely replicated the findings for the same choice task describe in Study 1 ($F(1,62) = 3.01$; $p < .10$), in this case providing causal evidence for the effects of self-discrepancy on indulgent choices. A second choice task included in the same study presented subjects with a set of product choices that described comparable features for each product. The results showed that the self-discrepancy manipulation also increased the likelihood that consumers selected the more optimal alternatives from various choice sets ($F(1,62) = 2.95$; $p < .10$), and additional analyses revealed that this was due to the greater use of a weighted additive decision rule (Sobel test: $p = 0.10$). Lastly, consistent with past findings, participants primed with self-discrepancy exhibited lower self-esteem than the control group ($F(1,62) = 2.760$; $p = .10$).

Finally, the fourth study was aimed at verifying the generalizability and relevance of our initial findings by employing a more realistic and marketing-related prime. We exposed our experimental group to pictures of ideal images (i.e. men and women wearing business suits in various business contexts), while our control group was exposed to pictures of typical students representing their actual self-concept. The "successful career" self-concept prime was adopted here because it was the most reported ideal self-concept in studies 1 and 2. Consistent with our other findings, those primed with ideal images exhibited a greater tendency to make optimal choices ($F(1,148) = 3.99$; $p < .05$) via the use of more effortful decision rules (Sobel test: $p = .05$). In this case, self-discrepancy did not have a significant effect on self-esteem ($p > .20$), perhaps suggesting that the internally generated self-discrepancies examined in the earlier studies were more

likely to stimulate negative psychological reactions than the marketing images used here.

These findings contribute to the literature by firstly providing evidence that even though exposure to idealized images may harm consumers' self-esteem, it can also benefit consumers by motivating them to make better decisions in various consumption contexts. While the self-discrepancy literature has generally focused on the psychological and emotional outcomes, we know of no research that has investigated the effects self-discrepancy has on consumer decision making. Also, past research has primarily focused on examining the effects of ideal beauty standards (especially among women) on self-esteem and behavior, whereas we explore how different domains of one's self-concept (including educational and career success) can also elicit a sense of self-discrepancy and lead to better consumer decision making.

For more information, contact: ksobol08@schulich.yorku.ca

The Impact of Incidental Ownership of Objects on Subsequent Behavior

Liad Weiss, Columbia University, USA*

Gita V. Johar, Columbia University, USA

Ownership is defined as a legal relationship between a person and an object that allows people to "have power or mastery over" their objects (Miriam-Webster Dictionary). However, can ownership also allow objects to have mastery over their owners by systematically affecting their behavior? Indeed, the notion that 'we are what we have' is deeply rooted in theories of the "self" (Belk 1988). Previous research has portrayed a motivational process of identity-construction, where people acquire products in order to manage their identity (e.g., Reed 2004). Such research (implicitly) assumes that *wanting* an "identity update" and *choosing* to achieve it via product ownership are necessary conditions for people's identity to be affected by products they own. Extending that research, we suggest that these conditions are not necessary, namely that a product can affect people's identity and subsequent behavior even when it was incidentally obtained (e.g., a gift) and the owners have no desire to "update" their identity. We predict that people will behave consistently with product characteristics when they are assigned to own it (assimilation), but contradictory to them when they interact with the product but are not assigned to own it (contrast). We propose that this is expected because people often categorize owned and non-owned objects in terms of the category "self" similarly to the way they categorize in-group and out-group members in terms of that category. Thus, just like people behave in assimilation to characteristics of 'in-groups' but in contrast to characteristics of 'out-groups,' we suggest that they may behave in assimilation to characteristics of owned objects but in contrast to characteristics of non-owned ones they interact with.

We predict that ownership affects behavior through its effect on how people see the self; hence, if people do not "refresh" their self-evaluation after interacting with a product their subsequent behavior cannot reflect product characteristics. People who are low on self-awareness (the state) or private self-consciousness (the trait) tend to reevaluate the self less frequently and their behavior is generally less correlated with their internal states (Gibbons 1990). Therefore, we predict that changes in behavior as a consequence of product ownership are less likely among individuals with lower self-awareness or self-consciousness.

We tested these predictions across three experiments in the domain of ethical behavior, examining the extent that people generously give others or unfaithfully take from them. In all experiments the cover story was a product evaluation study. Experiment 1 looked at ethicality in giving behavior. It examined whether a pen described as more (vs. less) generous, namely dispenses ink plentifully and lavishly (vs. economically and prudently), increases people's generosity when they own it (assimilation), but decreases their generosity when they do not to own it (contrast). Participants evaluated a pen that was described as either more or less generous¹. They were assigned to receive either the pen they evaluated

("ownership" condition) or another set ("no-ownership" condition). Then, participants' self-awareness was increased by asking them to describe their mirror-image. Subsequently, participant's generosity was examined in an ostensibly different study, using an incentive compatible dictator game paradigm: participants decided how much of an actual sum of money they received to give an anonymous person (they kept the rest for themselves). To examine the underlying process, participants responded to an original six-item scale that measured the extent that they classify owned (not-owned) products as part of (external to) the self. Results show that the three-way interaction between ownership, pen description and the continuous scale was significant. A spotlight analysis at one standard deviation above the mean of the scale, namely among people who classify owned products as part of the self, revealed a significant interaction between ownership and pen description. In particular, participants in the "ownership" condition acted with *greater* generosity when the product was described as more (vs. less) generous. That is, they adjusted their behavior to align with the perceived characteristics of a pen they were randomly assigned *to own*. By contrast, participants in the "no-ownership" condition acted with *lower* generosity when the product was described as more (vs. less) generous. That is, they contrasted their behavior to the perceived characteristics of the pen they were randomly assigned *not to own*. Finally, in support of a categorization process, a spotlight analysis one standard deviation below the mean of the scale revealed that among people who do not classify owned products as part of the self, there was no interaction between ownership and product description.

To examine the generalizability and robustness of the results, Experiments 2 and 3 looked at ethicality in unfaithful taking behavior. Experiment 2 examined whether headphones that are described as high (vs. low) on fidelity, namely reproduce the sound exactly as it was recorded (vs. improve the original sound) increase people's fidelity when they own them (assimilation), but decrease their fidelity when they do not own them (contrast). Participants evaluated a headphones-set that was described as either high or low on fidelity. They were assigned to receive either the set they evaluated ("ownership" condition) or another set ("no-ownership" condition). Subsequently, participants' self-awareness was increased by asking them to describe their mirror-image. Finally, in an ostensibly separate study, participants' cheating behavior was surreptitiously documented in a trivia knowledge quiz that incentivized good performance (participation in a \$50 lottery) and provided an opportunity to artificially improve one's score by self-reporting their performance. The results show that, the interaction between ownership and fidelity description on ethical behavior was significant in the predicted direction. In particular, participants in the "ownership" condition acted with *greater* fidelity when the perceived product fidelity was high (vs. low). That is, they adjusted their behavior to align with the perceived characteristics of headphones they were randomly assigned *to own*. By contrast, participants in the "no-ownership" condition acted with *lower* fidelity when perceived product fidelity was high (vs. low). That is, they contrasted their behavior to the perceived characteristics of the headphones they were randomly assigned *not to own*. Experiment 3 measured self-consciousness (vs. manipulating self-awareness). It showed that, consistent with our account that product characteristics affect behavior through an effect on people's self, the predicted assimilation and contrast are apparent mainly among self-conscious individuals.

¹ Extensive pretesting verified that product descriptions in all studies do not vary on other dimensions, such as quality or desirability

For more information, contact: lw2296@columbia.edu

4.3 Symposium: Directed by The "Outer Brain": Haptic Experience in Consumer Judgment and Decision Making

Room: Desert Willow

Chair: Chen Wang, University of British Columbia, Canada

Haptic Roughness Promotes Empathy and Helping Behaviors

Chen Wang, University of British Columbia, Canada*

Rui (Juliet) Zhu, University of British Columbia, Canada

Todd Handy, University of British Columbia, Canada

The haptic sensation is an important yet the least studied sense in consumer behavior. The limited research on haptics primarily focuses on the presence versus absence of haptic information (Peck and Childers 2003), without investigating specific haptic attribute while touch is always present. Also, the dependent measures are mostly product evaluations (Krishna and Morrin 2008), rather than actual behaviors. Thus, this research advances our understanding by studying the impact of one specific haptic attribute (i.e., rough versus smooth texture) on people's prosocial behaviors.

According to embodied cognition (Barsalou 2008), sensory data is stored together in memory with associated mental concepts. Once the sensory data is experienced, the corresponding conceptual experiences may be activated. As such, haptic roughness might trigger concepts related to rough time or hardship. Prior research has shown that similar experiences enhance empathy (Batson et al. 1996; Banissy and Ward 2007). Thus, individuals who are reminded of their own rough times by haptic roughness might experience heightened empathy towards the needy others, and subsequently engage in helping behaviors. Therefore, we hypothesize that haptic roughness versus smoothness promotes empathy and subsequently enhances helping behaviors. Furthermore, we posit that such main effect is moderated by target familiarity. People in general are more likely to help familiar than unfamiliar targets (Small and Simonsohn 2008), because we empathize more towards the former. Thus, towards familiar targets, the already heightened empathy is likely to override any empathy induced by haptic roughness, resulting in comparable high level of helping regardless of the haptic experience. However, towards unfamiliar targets, the haptic sensation is likely to determine the eventual helping behavior.

Study 1 demonstrated the basic main effect that haptic roughness versus smoothness leads to greater willingness to help. To manipulate the haptic sensation, we used a moisturizing hand wash in the smooth condition, and a scrub hand wash in the rough condition, under the cover story of product evaluation. The dependent variable was participants' willingness to donate towards two fictitious non-profit organizations in a subsequent donation task. As predicted, those in the rough (vs. smooth) condition showed higher willingness to donate.

Study 2 used direct measures of brain activity to test our hypothesis that exposure to haptic roughness may promote empathy. Adopting Fan and Han (2008)'s paradigm, participants observed cartoon images of hands in painful or neutral situations as their brain's electrical responses were recorded via event-related potentials (ERPs). The task required participants to decide if the picture appeared painful or non-painful. Participants performed half trials holding a rough-bottomed response device and the other half with a smooth-bottomed device. By analyzing ERP waveforms, we found that the painful images elicited a greater mean amplitude relative to the neutral images. More importantly, this empathy effect was amplified only in the later time windows in the rough condition. These results demonstrated that haptic roughness (vs. smoothness) promotes empathy, and this effect appears to be a later deliberate cognitive process.

Study 3 tested the boundary condition that such main effect only exists towards unfamiliar targets. We again manipulated the haptic sensation by using the two different hand washes. The dependent variable was again willingness to donate, but towards familiar and unfamiliar charities, respectively. A 2x2 ANOVA revealed a significant interaction between the haptics and familiarity. Specifically, for the unfamiliar charities, those in the rough (vs. smooth) condition showed higher willingness to donate. However, for familiar charities, no such difference occurred.

Study 4 demonstrated that empathy mediates the interaction of haptics and familiarity on helping behavior. Participant

came to the lab individually with a confederate arriving at the same time. To induce familiarity, the dyad chatted with each other as per Relationship Closeness Induction Task (Sedikides et al. 1999). Those in the unfamiliar condition did not perform this task. The haptic manipulation was the same as before. In the main study, the participant had an opportunity to help the confederate to perform a problem-solving task. We measured whether the participant offered help or not. Finally, the participant's situational empathy level was assessed. Data revealed a significant interaction between haptics and familiarity. Specifically, towards an unfamiliar confederate, the participant was more likely to help in the rough (vs. smooth) condition, whereas towards a familiar confederate, the participant was equally likely to help regardless of the haptics. More importantly, we found that empathy mediates this interaction effect.

Study 5 provided further support for the mediating role of empathy by measuring individuals' dispositional empathy. The study employed a 2 (familiarity) X 2 (haptics) X empathy (continuous) design. The familiarity manipulation was conducted by using RCIT, but between the participant and the experimenter. The hand wash was used again as the haptic manipulation. After that, the participant was asked to 1) indicate whether (s)he was willing to help the experimenter with further studies for her alleged dissertation, and 2) complete a dispositional empathy measure (Caruso and Mayer 1998). Data revealed a significant three-way interaction. Specifically, low-empathizers replicated findings observed in study 4, whereas higher empathizers were equally likely to help across four conditions.

Study 6 aimed to test whether our lab findings can be replicated in the field. We created a street fundraising event involving pedestrians as participants, by using a 2 (haptics) X 2 (familiarity) between-subjects design. To manipulate the haptic sensation, we attached either a projection sheet or a piece of sandpaper on a clipboard that a participant had to hold while completing the survey. Familiarity was manipulated by using either a familiar or an unfamiliar charity. In the survey, participants were asked to indicate whether they would donate, and if so, how much. The results replicated our lab study findings. Specifically, for the unfamiliar charity, people were more likely to donate if they were holding a rough (vs. smooth) clipboard, whereas for the familiar charity, people were equally likely to donate regardless of the clipboard type.

Across six experiments, including laboratory, neuroscience, and field data, we demonstrate that haptic roughness promotes empathy and helping behavior, but only towards unfamiliar targets. Findings from this research provide important theoretical and practical implications.

For more information, contact: chen.wang@sauder.ubc.ca

I'm There, Therefore I am – Self Touch and Self Tangibility in Consumption

Ann Kronrod, MIT, USA*

Joshua Ackerman, MIT, USA

The current research explores a novel notion of the effect of self-touch (touching one's own body parts) on thought and behavior. Touch is an important form of social interaction, and one that can have powerful emotional consequences. Research on the effects of touch by other people suggests that touch is comforting and people who are touched feel less lonely and happier (Wilhelm, Kochar, Roth and Gross 2000). It was previously found that positive attitudes towards recalled childhood touch as well as active engagement in touch behavior are important elements in social competence and confidence (Jones and Brown 1996).

In research of the effects of interpersonal touch on behavior, it was demonstrated that in situations of request, when a female confederate lightly touched the addressee, her requests were more readily complied with (Remland and Jones

1994), compared to no touch situation. In medical care situations too, light touch of a practitioner on the patient's arm while asking for a verbal promise to take a prescribed antibiotic medication ended up in elevated patient compliance a week later (Gueguen and Vion 2009). Levav and Argo (2010) show that even minimal physical contact, such as light comforting pat on the shoulder, can elevate feeling of security and consequently increase risk-taking behavior, such as taking financial risks. Importantly, the effect was attenuated when the pat was replaced with a handshake. This suggests that not any touch has the comforting effect that may influence behavior and decision making. Overall, the results suggest that physical contact can be strongly influential in decision making and the willingness to take risks.

However, very little attention was directed towards research of the effects of self-touch on emotion and behavior. A unique aspect of self-touch is the simultaneous sense of touching and being touched. This sense was previously shown to affect body structure representation (Schuetz-Bosbach, Musil and Haggard, 2009) and may potentially affect self-tangibility – the feeling of one's actual physical existence. Experiments involving the rubber hand paradigm (when a rubber hand is used to simulate self-touch, e.g. Longo, Cardozo and Haggard 2008; White, Davies, Halleen and Davies, 2010), as well as experiments comparing self- versus other-skin touch (Guest et al 2009) indicate biased awareness to self-touch, potentially elevating the importance of the possible effects of self-touch. To the best of our knowledge, no previous work investigated the emotional and behavioral effects of self-touch.

Hung and Wyer (2011) demonstrate that self-focused attention increases participants' disposition to imagine themselves using the products they evaluate, and in turn, these imaginings increase both their evaluations of these products and their likelihood of choosing these products as a gift for taking part in the experiment. It is possible that self-touch elevates one's self-tangibility, and it is plausible that this may cause elevated self-focus, which in turn positively affects product evaluation.

In this pioneer work on the emotional and behavioral effects of self-touch, we explore the effects of self-touch on perceived threat, on emotions such as calmness and alertness and on basic product evaluation. Unlike others-touch, which was shown to be comforting and calming, we suggest that self-touch may have different effects, such as elevated self-tangibility, which in turn may elevate perceived self-threat in threatening situations, but at the same time the touch may positively affect self-confidence, which would result in elevated determination and alertness in the face of threat. Self-confidence may also affect product evaluation towards more criticizing reaction to innovation, which would result in lower evaluation.

In Study 1 participants seated at library tables were approached by an experimenter who asked them to rate their liking of three innovative products and the degree to which they evaluated the usability of the products. Participants were either asked to remove their hands from the table, which made them naturally place their hands in their lap, or to hold the page with the picture of the product with both hands, which eliminated the chance for self-touch. Results indicate more criticizing evaluation of the products when participants held their hands in their lap, as well as lower liking rating for the products and higher self-confidence.

Study 2 was conducted in the lab. Participants were asked to put both hands on the table or in their lap. Then they watched a series of four pictures of natural disasters (house on fire, a tornado passing through a village, a tsunami wave rolling over a coastal street and an earthquake breaking a highway into two). Then participants answered questions pertaining to their emotions and attitudes towards the pictures. Specifically, participants filled an adapted version of the PANAS questionnaire, pertaining to alertness, determination and security and calmness. After that, participants answered questions about their perceptions of threat and their evaluation of the chances they would survive the situations depicted in the pictures. Our results suggest that self-touch elevates self-tangibility, as participants could visualize themselves more clearly in the situations depicted in the pictures, and reported higher perceived threat and

lower calmness. Importantly, however, self-touch was found to elevate determination, as participants evaluated higher survival chances in self-touch condition and scored higher on alertness and determination PANAS items.

Self-touch may elevate self-tangibility, i.e. the attention to one's existence in the real world. Elevated self-tangibility may bear various effects on perception of the surrounding world. For example, perceived threat of life-threatening situations may be elevated. But self-touch also bears a self-assuring effect. Facing threatening situations, self-touching individuals may be more self-confident and determined to survive the situation, and evaluation of products or other consumption situations is more critical and demanding. Future research on the effects of self-touch on consumption experiences may include experiential products, which are all about perception of oneself in a situation. It was previously shown that social anxiety is accompanied by heightened aversion towards social situations that involve other's touch (Wilhelm, Kochar, Roth and Gross 2000). It is possible that self-touch differently interacts with anxiety. Further research may contribute to our understanding of the elevating or attenuating effect of self-touch on prosocial behavior. Additional research which would focus on self-touch and prosocial behavior may shed light on the effects of self-touch on consumer sharing of information about consumption experiences.

For more information, contact: kronrod@mit.edu

Protection from Disease Attenuates Contamination-Related Biases

Julie Huang, University of Toronto, Canada*

Joshua Ackerman, MIT, USA

Alexandra Sedlovskaya, Harvard Business School, USA

Contemporary biases are partially derived from psychological mechanisms that evolved to protect people against the threat of contagious disease. This 'behavioral immune system' promotes effective disease avoidance but also results in over-generalized biases and negative attitudes towards people and other stimuli which are not necessarily legitimate carriers of disease. Four studies test whether experiences with disease protection (getting vaccinations, washing hands) can attenuate the negative biases associated with disease concerns in two domains: outgroup attitudes and product valuation.

Recent consumer behavior research highlights how people's concerns regarding group membership are capable of affecting their subsequent consumption decisions (e.g., Mead et al., 2010). The first two studies examine how disease threats impact people's intergroup attitudes with a particular focus on developing methods to ameliorate their resulting biases. Previous research suggests that people exposed to disease threats were more negative about and less willing to endorse immigration of foreigners (Faulkner, Schaller, Park, and Duncan 2004). Studies 1 and 2 examine how two modern forms of disease protection (receiving vaccines and cleaning one's hands) attenuate this relationship between disease concerns and prejudice. In Study 1, all participants either read a passage which made the threat of swine flu salient, or they did not read a passage. Afterwards, they rated how effective they perceived the swine flu vaccine to be, and reported their attitudes towards immigrants in the United States. Importantly, participants also reported whether or not they had received their swine flu vaccine as part of a background questionnaire; on the basis of this last question, participants were split into two naturally-occurring groups: protected (vaccinated) or unprotected (unvaccinated) conditions. We predicted that a) when disease threat is salient, people who are protected from that disease (by being vaccinated) will hold less negative attitudes towards immigrants compared to people who are not protected from that disease; b) protection will not influence people's anti-immigrant attitudes when they are not exposed to a disease-related threat; and c) perceptions of vaccine effectiveness will mediate the relationship between disease threat and negative attitudes. The data support these predictions.

In Study 2, we directly manipulate disease protection and measure its effects on people's negative attitudes towards outgroups in general. Research suggests that when a disease threat is salient, people who are chronically sensitive to disease are particularly prejudiced against outgroups (e.g., Faulkner et al., 2004; Mortensen et al., 2010). Study 2 tested whether experiences with hand washing could attenuate this relationship between individual sensitivity to disease and negative outgroup attitudes. Participants were primed with disease threat before either washing their hands with an antiseptic wipe or not. Next, they rated various social outgroups (e.g., heroin users) and ingroups (e.g., undergraduates) using a feelings thermometer scale. As part of the background questionnaire, participants also completed a germ aversion scale (Duncan, Schaller, and Park 2009). The data suggest that when participants did not wash their hands, individual germ aversion scores predicted their negative outgroup attitudes, which is consistent with previous studies. When participants washed their hands, however, this relationship disappeared. Moreover, this effect occurred when participants were rating outgroup but not ingroup members.

In Studies 3 and 4, we extend our findings about the effects of disease protection into the domain of product valuation. Research suggests that contamination concerns drive people's valuation of goods; for instance, contagion beliefs drive how consumers value objects once owned by moral and immoral celebrities (Newman, Diesendruck, and Bloom 2011). Study 3 tests whether experiences with hand washing are capable of affecting people's valuation of previously-owned goods. Participants were primed with disease threat before either washing their hands or not with an antibacterial wipe. Next, in an ostensibly unrelated experiment, they were asked to imagine being at a yard sale. Participants were given the original prices of four various objects typically found at yard sales (e.g., DVD player, lamp, microwave), and reported how much they would be willing to pay for those objects. As part of a background questionnaire, participants reported how effective they perceived the wipe to be. The data reveal a significant interaction of hand washing condition with perceived effectiveness. Specifically, for participants who did not wash their hands, wipe effectiveness ratings did not predict willingness to pay for previously-owned products. For participants who washed their hands however, increased effectiveness ratings marginally predicted increased willingness to pay for previously-owned products.

The results from Study 3 supported our prediction that hand washing affects how people rate products owned by others; but how might hand washing affect how people rate their own possessions? Previous research suggests that priming people with disgust (which activates contamination concerns) increases willingness to sell their own possessions (Lerner, Small, and Loewenstein 2004). Study 4 tests whether hand washing is capable of interrupting this contamination-driven devaluation. First, participants were primed with disease threat. Afterwards, they either washed their hands or they did not. Participants were given a new pen and afterwards, asked their selling price for the recently acquired object; they also reported their current concerns with contamination. Consistent with previous research, the data from this study suggest that for participants who did not wash their hands, concern with contamination predicted their willingness to sell the pen for a lower price. Prompting participants to wash their hands, however, effectively erased this link between contamination concerns and selling price.

Taken together, this research suggests that physical experiences with disease protection have implications for both outgroup attitudes and product evaluation.

For more information, contact: julie.huang@rotman.utoronto.ca

4.4 Individual Papers: Can't Buy Me Love: Pricing

Room: Palo Verde

Chair: Atul Kulkarni, University of Missouri-KC, USA

Secrets and Lies: Gender Differences in Concealing Consumption Information

Christine Kang, University of Michigan, USA*

Grant Packard, University of Michigan, USA*

David Wooten, University of Michigan, USA

Previous research suggests that consumers react negatively to price disparities (Feinberg, Krishna and Zhang 2002), view policies that produce them as unfair (Xia, Monroe and Cox 2004) and the prospect of facing them as threatening to the self (Argo, White and Dahl 2006). In response, they are willing to lie about the prices they have paid to minimize the ego threat of having been “taken” (Argo et al. 2006; Sengupta, Dahl and Gorn 2002). Moreover, those who empathize with victims of price disparities are willing to misrepresent price information to prevent victims from looking foolish (Argo, Dahl and White 2009).

Despite findings of predictable patterns of lying to minimize threats of price disparities, these studies also report levels of lying intentions suggesting a general reluctance to lie. Across four studies presented by Argo et al. (2006), the mean score on the lying index exceeded the scale midpoint in only two of 16 experimental conditions. That is, on average, participants were unlikely to lie. Are there alternative tactics individuals might employ to escape such ego-threatening situations? If so, then what factors influence the use of these tactics? For example, prior research on price disparities and lying has not considered a strong moderator of deceptive behavior – the gender(s) of the interaction pair. In many interactions, women deceive more than men, motivated by their desire to maintain positive social relationships (e.g., Tyler and Feldman 2004; DePaulo, Epstein and Wyer 1993).

In this research, we address these questions by: (1) considering evasion (e.g., Leary 1995; Wooten and Reed 2000) or concealment (Larson and Chastain 1990) as an alternative to deception as a means of avoiding the disclosure of ego-threatening consumption information, (2) exploring gender differences in efforts to conceal this information, and (3) examining situational discomfort as a mediator of the effects of price disparities and the use of secrets (evasion) and lies (deception) to protect the self and others.

We report the results of a laboratory experiment designed to support three distinct analyses. The experiment involves a hypothetical scenario in which participants learned that they paid more, less, or the same amount as a friend for an identical product (a television set). The three scenarios correspond to self-threatening, other-threatening, and control conditions, respectively. Each scenario includes excerpts of a dialog with a same sex friend in order to control for mixed-gender effects in deception (Tyler and Feldman 2004). The dialog format is used to manipulate information about relative prices paid by participants versus the friend and to prompt open-ended responses from participants (i.e., participants were asked to provide the next line of a dialog indicating their response to the friend’s direct inquiry about the price they paid for the TV).

Our first analysis compared participants’ open-ended responses to this price inquiry. Three independent judges were instructed to code responses as either “truthful”, “deceptive”, or “evasive”. “Evasive” responses were those in which the participant concealed the price they paid by making no mention of actual or relative price, or by being vague, equivocal or ambiguous about price. Replicating prior research, Chi-square and Fisher’s exact tests revealed that, relative to control, participants were less likely to reveal price information when they paid more than their friend (self-threat). For

the full sample, people were no less likely to reveal the price they paid when their friend paid more (other-threat) than in control. However, response patterns differed along gender lines. In comparison to the control condition, women were significantly less likely to reveal price information in both price disparity conditions. When the friend got a better deal (self-threat), women were significantly more likely to evade and marginally more likely to deceive than were their counterparts in the control condition. Their response patterns differed when the friend got a worse deal (other-threat). Here, they were significantly more likely to deceive, but no more likely to evade than their counterparts in the control condition. In short, women evaded to protect the self, but deceived to protect another. Men, on the other hand, did not differ from control on either response tactic or in either condition.

In our second analysis, we sought to shed additional light on the pattern of findings that emerged in the first analysis—that women evade to protect the self, but lie to protect others. We used slopes analysis (Aiken and West 1991) on scale-based measures of evasion and deception intentions to assess whether the perceived size of the price disparity moderated the relative preference for evasion over deception. Among women who paid more than their friend (self-threat), the preference for evasion over deception increased with the perceived size of the price disparity. We observed the opposite pattern among women who paid less than their friend (other-threat); as the price disparity increased, so too did the preference for deception over evasion.

For our third analysis, we examined situational discomfort as a mediator of the relationship between direction of price disparity and response tactic. Bootstrap analysis of condition contrasts (IV), the discomfort index (mediator), and deception and evasion intention scales (DVs) supported full (indirect-only) mediation. However, this full sample effect was moderated by gender (model 5; Preacher, Rucker and Hayes 2007). For women, situational discomfort mediated the effects of price disparities on both deception and evasion under both disparity conditions (self-, other-threat). In contrast, men's responses to price disparities were mediated by situational discomfort only when they (but not their friend) overpaid and intended to lie about (but not conceal) price information.

Our research extends findings on self-presentation and consumer deception (e.g., Argo et al. 2006; Sengupta et al. 2002) by broadening our understanding of the repertoire of tactics available to those who are motivated to avoid revealing consumption information. Lying may not be the only, or even the preferred, method of avoiding inconvenient truths. In addition, our exploration of gender differences in perceiving and responding to threatening situations has the potential to yield novel insights about an important factor that is often overlooked in consumer psychology, despite the gendered nature of many consumption activities (Fischer and Arnold 1994).

For more information, contact: gpackard@umich.edu

When Small Differences Loom Large: The Effects of Small Price Differences on Choice Difficulty and Deferral

Jongmin Kim, Yale University, USA*

Nathan Novemsky, Yale University, USA

Ravi Dhar, Yale University, USA

Imagine a consumer who is choosing between two different flavors of cereals. In one case, the prices of both cereals are the same. In the other case, the prices of each cereal are slightly different. Will the consumer feel these choices are equally difficult and be equally likely to actually make a choice? Perhaps small price differences should not influence consumer preferences or should even complicate decisions by adding one more attribute to think about. However, we suggest that minor price differences can actually reduce choice difficulty and choice deferral as compared to holding price constant across alternatives.

This research builds on the idea that certain types of attributes draw more attention than others in comparison between alternatives. Specifically, attributes that are different across alternatives become more salient than attributes that are identical (e.g. Houston and Sherman, 1995). Thus, when prices are the same and do not have discriminative value across alternatives, consumers are likely to ignore prices and draw their attention to comparisons between other attributes. When prices are different, however, consumers will pay attention to price information. What is interesting here is that, in the case where prices are just slightly different (i.e. very similar), the focused attention on similarity in price can increase the overall similarity of the options.

When alternatives are seen as similar to each other, choices become easier because consumers anticipate less regret compared to a choice with less similar options. This reduction in anticipated regret arises because consumers realize that the decision outcome would not have been very different had they chosen the forgone alternative (Sagi and Friedman, 2007). As a result, consumers experience less difficulty in choosing when prices of options are slightly different than when prices are same. We demonstrate this effect across a series of studies.

Study 1 examines the effect of small difference in price on choice difficulty. Participants imagined that they wanted to buy some cereal and were presented with two options (Whole Wheat and Oats vs. Brown Rice and Corn cereal) either identically priced (\$4.23) or differently priced (\$4.15 vs. \$4.23 or vice versa). They were asked to choose one of the two cereal options. Results show that participants in the same-price condition felt more difficulty in choosing than people in the different-price conditions. However, there was no difference in choice share across the conditions. We replicated this finding in a multiple options setting where people chose one option among 5 entrées on a menu.

While study 1 demonstrates that people experience difficulty in choosing among identically priced options, study 2 tests whether consumers have correct intuitions about this effect. All the participants were presented with either two identically priced (\$17) or two differently priced (\$17 vs. \$18 or vice versa) entrees (Tomato Seafood pasta vs. Chili Shrimp pasta). Participants in the experience conditions chose between the two entrees. Participants in the prediction condition compared the two scenarios (choosing between identically priced entrees vs. choosing between differently priced entrées), and indicated when they would experience more difficulty in choosing between the two situations. The results show that experienced choice difficulty increased when the prices for both options were the same replicating study 1. However, participants did not predict this trend. Most consumers believed that a very small price difference would not affect their choice difficulty.

We propose that the effect of price difference on choice difficulty operates through changes in perceived similarity or substitutability. When the prices of options are different, consumers attend to price and the focused attention on minor price differences can lead to increased perceived similarity across available options. We test this hypothesis in study 3. Participants chose between two entrees (Tomato Seafood pasta vs. Chili Shrimp pasta) either identically priced (\$17) or differently priced (\$17 vs. \$18 or vice versa), and indicated perceived similarity between the two options. The results showed that participants perceived less similarity when the options have the same price than when the options have different prices. Ironically, people perceived the options to be less similar when they share the same price. Building on this finding, we examine whether perceived similarity or substitutability of alternatives mediates the effect of price differences on choice difficulty in study 4. Participants in study 4 chose one among 6 cereal options either with same price or with different prices. We replicated the pattern of previous studies that participants who are given options with the same price experienced more difficulty in choosing and perceived the options to be less substitutable than those who are given options with different prices. Furthermore, perceived substitutability mediated the effect of price differences on choice difficulty.

While previous studies directly measured choice difficulty, study 5 focused on one crucial consequence of choice difficulty. Dhar (1997) demonstrated that when consumers confront difficult choices, they often defer making a choice. Therefore, choosing from the identically priced options will increase the likelihood of choice deferral. To examine the price difference effect on deferral, study 5 was conducted in actual purchase environments at one Korean university. Participants were given ₩1,000 (approximately \$1) as shopping money and were presented with two different kinds of gum either identically priced (₩ 630) or differently priced (₩620 vs. ₩640 or vice versa). Participants could purchase one option, but they were also offered a no-choice option (i.e. purchase neither). The results demonstrated that participants in the same price condition show higher likelihood of choice deferral and indicate less perceived similarity among options than participants who purchased among the options with different prices. This result suggests that changes in price can manifest themselves not only in choice difficulty, but also in the choice outcome.

In summary, we find that having slightly different prices leads to less choice difficulty and deferral. When choosing between alternatives, a negligible difference in prices shifts attention to price. Minor price differences increase the perceived similarity between the choice options and induce lower choice difficulty and lower choice deferral.

For more information, contact: jongmin.kim@yale.edu

The Effect of Payment Method on Object Perception

Bernadette Kamleitner, Queen Mary, University of London, UK*

Berna Erki, Queen Mary, University of London, UK

On top of traditional cash payments a majority of vendors also accepts credit and debit cards. How people pay has been shown to matter. Existing research suggests that payment by card alleviates salience and, in turn, pain of payment, hampers price recall, and leads to an underestimation of actual expenses incurred (e.g., Prelec and Simester 2001; Soman 2001; 2003; Srivastava and Raghuram 2002).

Taken together existing literature primarily argues for an effect of payment method on cost perception. Whether payment method also affects the perception of the acquired good remains an open question. We tap into this gap in the literature and investigate in particular whether payment method influences psychological object ownership. Psychological ownership has been defined as the extent to which an object is perceived as “MINE” (Pierce, Kostova et al. 2003). Findings to date suggest that the construct is an important driver of consumer behavior (e.g., Reb and Connolly 2007; Feuchtl and Kamleitner 2009; Peck and Shu 2009). Psychological ownership is decoupled from factual ownership status and can vary in strength in response to factors other than entitlement. Payment method may constitute one such factor because it may influence the extent to which a payment is perceived as personal investment in an object; a known route to psychological ownership (Pierce et al., 2003). Consequently, we expect those paying in cash to experience higher immediate levels of psychological ownership than those paying by card. This prediction hinges on the assumption that the cultural meaning associated with credit card payment signifies convenience and lack of personal investment. Consumers in a culture in which credit cards signify important investments should not exhibit the effect.

Study 1

Study 1 was conducted in a field setting in the form of an exit survey.

Participants and Design

208 participants (98 female; aged between 18 and 55 years) were randomly addressed upon having made a purchase in several apparel stores. Participants were asked to pick a special piece of clothing that they just bought for themselves and to answer some questions on this item. Variables assessed included an item asking for payment method and a 4-item measure ($\alpha = .79$) of psychological ownership that was adapted from Peck and Shu (2009). Pain of payment and actual price were assessed by one item each. Participants were asked to provide their email address and to participate in a follow up study.

Two weeks later participants were emailed a short questionnaire that reminded participants of the item picked in study 1 and re-assessed psychological ownership. Demographics of and payment methods used by the 72 people responding did not differ from the participant profile in the initial survey.

Results and Discussion

A between subject ANOVA revealed significant differences in psychological ownership across payment methods. Planned contrasts showed that cash payers experienced stronger psychological ownership than card payers; the type of card used (credit vs. debit) made no difference. Although pain of payment varied across payment methods it was unrelated to the extent of psychological ownership experienced. Similarly, the price paid did not influence results.

Comparing the degree of psychological ownership across time in a 2 (between: card vs. cash) x 2 (within: time 1 vs time 2) repeated measures design yielded main effects of time and payment method qualified by their interaction. Whereas there was an increase in psychological object ownership for those paying by card, those paying in cash experienced no further increase in psychological ownership with use. As a result of the differential development of psychological ownership, the initially observed difference in psychological ownership across payment methods disappeared two weeks after the acquisition.

Study 2

Study 2 was an experiment that systematically manipulated payment method and ensured causality. Moreover, it aimed to establish the cultural sensitivity of the effect. Prior interviews indicated that second generation Asian students associate credit card payment with important, meaningful investments. We hence expected that Asian students would respond differently to credit card payments.

Participants and Design

60 UK students (mainly undergraduate, 32 female; mean age 21, 33 students with Asian background) agreed to participate in an experiment simulating the first day of work. Participants received a wallet containing play money and a credit card (including pin). After completing unrelated questionnaires, they were asked to buy a pen and crisps on their way to the experimental HR office. The stand selling pens systematically varied the accepted method of payment (cash versus card only). At the very end of the experimental simulations participants were asked to fill in a final questionnaire assessing psychological ownership for the pen ($\alpha = .89$).

Results and Discussion

A 2 (card vs. cash) x 2 (Asian vs. non-Asian) ANOVA revealed no main effects but a significant interaction effect. Whereas non-Asian students experienced a stronger sense of ownership for the pen if they had paid by cash, payment

method did not affect Asian students' extent of psychological ownership.

Conclusion

We find evidence that payment method may not only influence the perception of cost but also the perception of the acquired object; i.e. the extent to which it feels like mine. This effect occurs instantaneously upon acquisition but it seems dependent on the cultural understanding of credit card use as a means of convenience (Study 2). Moreover, the effect dissipates over time when card payers develop equal levels of psychological ownership through interaction with the product. Practical implications may involve effects on immediate object care and use (e.g. acquisition of care products). Theoretical implications point towards a broader conceptualization of consequences of payment methods; qualified by the observation that the effect of payment methods which has usually been established in Western societies may not be universally observed.

For more information, contact: bernadette.kamleitner@gmail.com

The Devil You (Don't) Know: Bidder Ambiguity and Consumer Aggressiveness in Auction Contexts

David Norton, University of South Carolina, USA*

Cait Lambertson, University of Pittsburgh, USA

Rebecca Naylor, Ohio State University, USA

In contrast to past research that focuses on seller reputation as the driver of auction outcomes (e.g., Cheema, 2008; Houser & Wooders, 2006; Zeithammer, 2006), we argue that the identity of competing bidders plays a crucial role in determining bidding aggressiveness and final sales prices. Research on how consumers respond to similar/dissimilar others (Brock, 1965; Brown & Reingen, 1987; Eagly, Wood, & Chaiken, 1978) can help predict that if a competing bidder's profile identifies them as similar to a consumer, the perception of similarity with the competing bidder creates affinity, resulting in decreased bidding aggressiveness and, hence, lower prices. However, past research does not make a clear prediction on how aggressively consumers will compete against bidders who are ambiguous, that is, whose identity is unknown. Following Naylor, Lambertson, and Norton (2011), we define an ambiguous other as a person about whom no identifying demographic information is provided.

We predict that auction consumers will infer that ambiguous others are dissimilar to the self because they approach the inferential task with a competitive mindset. Past research suggests that competitive contexts cue individuals to adopt cognitive patterns that distance their self-view from others in their environment (Stapel & Koomen, 2005). Thus, when no contextual cues signal a competing bidder's identity, consumers use the competition-generated differentiating mindset to make inferences of dissimilarity. Recent work in interpersonal perception parallels this argument, suggesting that individuals in competitive (vs. cooperative) situations tend to project fewer of their own personality traits to unidentified others (Toma, Yzerbyt, & Corneille, 2010). Having made an inference of dissimilarity, individuals are free to take an adversarial stance toward other bidders. They no longer feel the need to create harmony, maintain relationships with, or protect other bidders, as they would if competing against similar others (Zizzo & Tan, 2007). The inference of dissimilarity leads to greater bidding aggressiveness. Thus, we predict:

- H1:** Consumers in auctions are likely to bid more aggressively against ambiguous and identified dissimilar others than against identified similar others.

Given that consumers make inferences that distance an ambiguous other from themselves only when (1) contextual cues

are not present that would allow them to infer an ambiguous bidder's identity and (2) in the presence of competition, providing contextual cues that guide inferences towards similarity or weakening a competitive mindset should moderate the effects predicted in hypothesis 1.

The competitive mindset generated by auctions can be externally weakened in two ways. First, external influences (e.g., priming) may heighten or attenuate the accessibility of competition-related cognitions. Therefore, we predict that if unrelated stimuli activate a cooperative mindset prior to entering an auction (an inherently competitive environment), the tendency to infer dissimilarity when faced with ambiguity will be attenuated. As a result, aggressive bidding will also decrease, given that bidding aggressiveness is driven by the inference of how similar the ambiguous bidder is to the consumer.

An alternate way that a competitive mindset may be weakened is by altering the format of the auction. Multi-item auctions produce a reduced sense of competition compared to single-item auctions. Realistic conflict theory (Sherif, 1966) suggests that it is primarily in situations of competition over *scarce* resources that individuals will distance themselves from competitors. Thus, we propose that a multiple-item auction will generate inferential patterns like those generated in a cooperative setting (e.g., Naylor et al., 2011), in which ambiguous others are inferred to be similar to the self.

We therefore propose three ways in which the aggressiveness with which consumers bid against ambiguous bidders can be modified:

- H2:** The tendency to bid as aggressively against ambiguous others as against identified dissimilar others will be attenuated when:
- a. A cooperative as opposed to competitive mindset is activated,
 - b. Contextual cues indicate that other bidders are likely to be similar to the self (vs. when contextual cues provide no information about likely competitor similarity), or
 - c. Multiple copies of an item are available in the auction (vs. when only a single item is available).
- H3:** Effects of identification or ambiguity on bidding aggressiveness are mediated by inferences of similarity between the consumer and other bidders.

Three experiments were designed to test our hypotheses. In study 1, results reveal that ambiguous others are interpreted differently when consumers are in a cooperative versus competitive mindset. Participants compete as aggressively against an ambiguous bidder as they do against a dissimilar bidder (and significantly more aggressively than they do against a similar bidder) when in a competitive mindset. In contrast, participants compete significantly less aggressively against an ambiguous bidder than they do a dissimilar bidder when in a cooperative mindset.

Study 2 demonstrates that participants bid less aggressively against an ambiguous competitor when contextual cues indicate that other bidders are likely to be similar to the self (vs. when contextual cues provide no information about competitor similarity). These effects are mediated by similarity inferences. Specifically, we find that if an auction website name indicates that competing bidders are likely to be similar to the self by referencing a shared membership group, participants bid less aggressively against ambiguous others.

The results of study 3 reveal that ambiguous others are inferred to be similar to the self in a low scarcity multiple-item auction but are inferred to be dissimilar to the self in a high scarcity single-item auction. The difference in inferred similarity mediates bidding aggressiveness, such that consumers compete as aggressively against an ambiguous other as

they do a dissimilar other in a single-item auction. In contrast, in a multiple-item auction, participants compete less aggressively against an ambiguous other than a dissimilar other since ambiguous others are inferred to be like similar others in this resource-abundant context. Theoretically, we offer an empirical framework for understanding the effect of social influence on auction behavior. In addition, we demonstrate a boundary condition for the egocentric anchoring mechanism and false consensus effects seen in past research (e.g., Naylor et al., 2011; Ross, Greene, & House, 1977). Importantly, we show that not only do consumers infer dissimilarity under competition, these inferences drive aggressiveness and financial decision-making.

For more information, contact: david.norton@grad.moore.sc.edu

4.5 Individual Papers: All That Meat and No Potatoes: Self-Regulation

Room: Cottonwood

Chair: Hee-Kyung Ahn, Hanyang University, Korea

Environmental Disorder Leads to Self-Regulatory Failure

Boyoun (Grace) Chae, University of British Columbia, Canada*

Rui (Juliet) Zhu, University of British Columbia, Canada

A common theme in many popular home organization TV shows is that environmental disorganization is associated with a number of negative outcomes, such as deteriorating health and self-regulatory failures. As such, better organization or de-cluttering can improve life quality. Despite these beliefs in practice, our theoretical understanding of how environmental organization or orderliness can affect cognition and behavior remains limited (Keizer, Lindenberg, and Steg 2008). We address this question in this research by focusing on the impact of environmental orderliness on self-regulation.

Our conceptual framework is based on two lines of research: the personal control literature (Kelly 1963) and the resource depletion theory (Baumeister et al. 1998). Humans have a fundamental need to control their environment (Kelly 1963; White 1959) and the characteristics of a physical environment such as physical confinement can threaten individuals' sense of personal control and people react to the threat (Baum, Singer, and Baum 1981; Edney and Buda 1976; Levav and Zhu 2009). Extending on this line of research, we suggest that environmental orderliness can also threaten individuals' sense of personal control, because people in messy homes often feel that their lives are also out of control (Belk, Seo, and Li 2007; Cwerner and Metcalfe 2003) and people tend to attribute a messy home to the person's lack of ability to manage her time and life (Bitner 1990). Furthermore, findings in the resource depletion theory showed that coping with a threat demands cognitive resources, and subsequently increases self-regulatory failures (Glass, Singer, and Friedman 1969; Inzlicht and Kang 2010). Combining the above theorizing, we propose that a disorganized environment threatens individuals' sense of personal control, causing them to spend substantial cognitive resources to cope with this threat. As a result, these people are resource depleted and exhibit more self-regulatory failures in subsequent tasks.

Across four studies, we show that individuals who were exposed to a disorganized (vs. organized) environment exhibited more self-regulatory failures in subsequent tasks, such as impulsive buying, less persistence on challenging tasks, and unhealthy eating. We also validate our process explanation by showing that: (1) the negative impact of environmental disorder on self-regulation is more acute for people who are more likely to react to threats to one's control (study 2), (2) the control motivation mediates the relationship between environmental orderliness and self-regulation (study 3), and (3) self-affirmation, which helps recoup cognitive resources, moderates the relationship

between environmental orderliness and self-regulation (study 4a and 4b).

Study 1 showed that a disorganized (vs. organized) environment leads to poorer performance on a challenging task. The study was run with one participant at a time. Upon arrival, the participant was guided to the room where environmental orderliness was manipulated. Specifically, she was exposed to either an organized or a disorganized environment. In the disorganized environment condition, office supplies (e.g., paper, file folders, and paper cups) were scattered all over the place in a cluttered manner. In contrast, in the organized environment condition, the same amount of items was placed in a very structured and ordered manner. Then, the participant was escorted to the second room where no orderliness manipulation was present and was asked to complete an unsolvable puzzle (Baumeister et al. 1998). The result showed that participants who were exposed to the disorganized (vs. organized) environment earlier gave up sooner on the unsolvable puzzle in the second room.

Study 2 provided a theoretical replication in an impulsive buying context, and illuminated the process by showing that this effect is more salient among individuals who are chronically motivated to react to threats to one's personal control. The environmental orderliness manipulation and the procedure were similar to those in the study 1. After exposure to either an organized environment or a disorganized environment, participants were asked to indicate Willingness-To-Pay (WTP) for a number of products (Vohs and Faber 2007). Individuals' chronic reactance were assessed via the Hong Psychological Reactance Scale (Hong and Faedda 1996). The result provided the replication on impulsive buying: participants in the disorganized environment indicated higher WTP than those in the organized environment. Furthermore, the impact of environmental orderliness on WTP was only salient among participants who were chronically high in reactance.

Study 3 tested the proposed process explanation by demonstrating that the control motivation mediates the effect of environmental orderliness on unhealthy eating behavior. Adopting a lexical decision task to assess the implicit activation of control motivation, we showed that people in a disorganized (vs. organized) environment responded faster to control-related words, indicating the increased activation of control motivation (as measured by response time to control-related words) mediated the effect of environmental orderliness on chocolate consumption.

Finally, Study 4 provided further evidence for the underlying process. Based on the finding that self-affirmation counteracts this resource depletion and facilitates subsequent self-control behaviors (Schmeichel and Vohs 2009), we expected that self-affirmation will counteract the resource depletion induced by a disorganized environment, and thus attenuate self-regulatory failures in subsequent tasks. Supporting this prediction, the result showed that self-affirmation (i.e. writing an short essay about an important value in their life) mitigated the self-regulatory failures in unhealthy eating (4a) and impulsive buying (4b).

The current research makes several contributions. First, it adds to the growing environmental psychology literature. We focus on an under-researched aspect of the physical environment and provide a comprehensive model to explain why environmental orderliness can affect cognition and behavior. Second, it enriches the resource depletion theory by showing the mere exposure to a disorganized environment can lead to resource depletion. It is important because it implies that resource depletion can occur without effortful and explicit cognitive activities. Third, this research also enriches the Broken Window Theory (Wilson and Kelling 1982). Previous research has primarily used the social influence to explain why minor environmental disorders (e.g., broken windows, graffiti etc.) increase vandalism and petty crimes. Findings from this research suggest another explanation by providing a resource-based process. In addition to the above theoretical contributions, this research offers crucial practical implications concerning public health and consumer well-being, especially to compulsive hoarding problems.

For more information, contact: boyoun.chae@sauder.ubc.ca

What's the Point of Temptation if You Don't Give in to it? The Positive Impact of Indulgence on Vitality and Creativity

Fangyuan Chen, HKUST, Hong Kong*

Jaideep Sengupta, HKUST, Hong Kong

Indulgent, impulsive behaviors are characterized by immediate pleasures, which have negative later consequences (Rook 1987). Therefore, such behaviors, e.g., eating a rich but fattening piece of cake, or buying an expensive sweater that one can't quite afford – are typically viewed as being normatively “bad”. This research takes a different tack: we examine how indulging can actually have beneficial effects – specifically, by increasing subjective vitality and creativity.

Arising from self-determination theory (Deci and Ryan 1991), subjective vitality refers to the positive experience of having energy (Nix et al., 1999). Vitality arises from the feeling of behaving according to one's wishes in fulfillment of intrinsic motivations rather than norm-based rewards and punishments (Deci and Ryan 1991; Ryan and Frederick, 1997). This view of subjective vitality has implications for the possible beneficial consequences of engaging in impulsive behaviors. Such behaviors have been conceptualized as a struggle between the intrinsic motivation to indulge oneself and deterrents that at least partly derive from social norms (Rook and Hoch 1985). Giving in to temptation thus involves freeing oneself from norms and satisfying intrinsic motivations – consequently, experiences of vitality should receive a boost.

However, there is a counteracting force for the strengthening effect of indulgence on vitality: namely, guilt. Indulgent behavior is usually accompanied by guilt (e.g., Puri 1996). Given that vitality is marked by the feelings of “being alive” and “fully functional” (Ryan and Bernstein 2004), one would expect guilt to dampen vitality. Indeed, empirical evidence documents a negative correlation between guilt and vitality (Ryan and Frederick 1997). We argue, therefore, that indulgence will enhance vitality only when the accompanying guilt can be reduced by justifying the indulgence. Such justification may be externally provided (e.g., being instructed to eat a cake by the experimenter) or internally generated (e.g., justifying an expensive purchase by telling oneself that it may be viewed as a gift from another person).

Apart from documenting the vitalizing effect of indulgence, another goal of this research is to examine an important downstream consequence of this relationship. We propose that enhancing vitality should lead to an increase in creativity. Thinking creatively is essential to consumers' life and work, and the last few years have witnessed much research on consumer creativity (e.g., Burroughs and Mick 2004). Creativity involves new ways of thinking, which can manifest in the ability to see relationships between normally unrelated stimuli (Moreau and Dahl 2004). Creativity has been found to be enhanced both by positive affect (Isen et al. 1987) and moderate levels of arousal (Toplyn and Maguire 1991). Of interest, vitality is marked by both of these facets. People high in vitality tend to feel capable and energetic, producing both positive affect and arousal (Nix et al. 1999). Thus, we propose that vitality should lead to enhanced creativity.

Results from four studies provide convergent support for these arguments. In Experiment 1a, participants were instructed to sample either a chocolate bar (indulgent behavior) or a carrot (non-indulgent behavior), and vitality was measured using a standard scale (Ryan and Frederick, 1997). Higher scores were obtained for the former ($M_{chocolate} = 4.46$ vs. $M_{carrot} = 3.74$, $F(1, 82) = 11.92$, $p = .001$). A corresponding effect was obtained for creativity (8.73 vs. 6.96, respectively, $F = 38.78$, $p < .0001$), as measured on an alien-drawing task (Ward 1994). While this study involved an external justification (experimenter instructions) in both conditions, Experiment 1B manipulated the presence of an

internal justification. Participants were asked to consider buying a nice but out-of-budget sweater (Puri, 1996). Half of them were also told to imagine that it could be mentally accounted for as a gift from one's spouse (justified); the other half had no such justification. Using the same measures as before, vitality was directionally superior in the former group (M's: 4.25 vs. 3.67; $F(1, 34) = 2.28, p < .10$, one-tailed) and creativity was significantly so (M's: 7.28 vs. 5.19, respectively, $F(1, 34) = 26.50, p < .0001$).

Experiment 2 presents a more complete picture by looking at the interaction between type of behavior (indulgent vs. non-indulgent - sampling chocolate vs. carrot) and justification (yes/no). Participants were instructed to either sample the snack as part of the experiment (thus, in both the chocolate and carrot conditions, the eating was justified as compliance with instructions) or by asking them to choose between the snack and an aversive task, writing a 100-word essay (thus, indulging was less justified, since participants in either snack condition could have written the essay instead). The vitality benefit accruing from eating a chocolate (vs. a carrot) was greater in the justified condition (M's: 4.69 vs. 3.79, $F(1, 34) = 13.71, p < .01$) than in the non-justified condition (M's: 3.95 vs. 3.70, $F(1, 31) = 0.57, p = .45$); Guilt was also measured in this study, and as expected, indulgent behavior led to higher guilt in the no-justification condition ($M_{chocolate} = 5.06$ vs. $M_{carrot} = 2.93, F(1, 31) = 3.34, p = .07$), but not in the justification condition (M's: 2.89 vs. 2.89). Experiment 3 replicated these results using a different operationalization of indulgent vs. non-indulgent behaviors (buying a hedonic vs. a utilitarian product), and a different manipulation of justification (accounting the purchase as a gift from another person vs. not). Exactly the same significant pattern of results was obtained as in Experiment 2 (not detailed here for reasons of space). This last study also included a new measure of creativity, as manifested in advertising slogans generated by participants. The creativity of these slogans was greater for indulgent behaviors in the justified (vs. non-justified) condition (M's: 7.10 vs. 5.35, $F(1, 32) = 8.74, p < .01$), whereas justification made no difference for non-indulgent behaviors (M's: 5.50 vs. 5.85, $F(1, 32) = 0.87, p = .36$).

These results contribute to a deeper understanding of indulgent behaviors. Traditionally, it is believed that such behaviors are irrational, sinful, and impair our long-term self-regulation goal (Baumeister 2002). We find some evidence for the beneficial effects of indulging; in so doing, we also contribute to knowledge on subjective vitality, by identifying novel antecedents (indulgent behavior) and consequences (enhanced creativity) of this construct.

For more information, contact: chen.fangyuan1029@gmail.com

For whom is there a Debt Snowball? How the Order of Debt Repayment Affects Low Self-Control Individuals

Keri Kettle, University of Miami, USA*

Remi Trudel, Boston University, USA

Gerald Haubl, University of Alberta, Canada

It is well-established that consumer debt is a problem (Amar et al. 2011); what is less clear is how to appropriately motivate consumers to pay off their debts. Consumers with debt tend to have their financial liabilities segregated into multiple accounts, with the typical US citizen possessing 3.5 credit cards, a mortgage, and an automobile loan (Ramsey, 2005). Indebted consumers can choose from among several strategies to pay down their debt accounts; for instance, they can allocate an equal amount of money to each debt account (Benartzi and Thaler 2001; Amar et al., 2011), or they can pay down the accounts one-at-a-time, either in order of interest rate (from highest to lowest; see Sethi, 2005), or in order of account size (from smallest to largest, see Ramsey, 2005). In this article, we examine how the order in which one pays off debt accounts influences one's motivation to get out of debt.

We adopt a goal framework (Locke and Latham 2002) and build on literature that examines the dynamics of

self-regulation (Fishbach and Dhar 2005; Wertenbroch 1998). For a superordinate goal, such as becoming debt-free, individuals may choose to interpret action in terms of making partial progress through the completion of subgoals, like paying off individual debt accounts (Bandura 1991; Fishbach et al. 2006; 2009). For instance, recent work suggests that consumers with multiple debt accounts prefer to pay off the debt account with the smallest balance first (Amar et al., 2011), regardless of the credit terms, in order to make partial progress toward achieving their superordinate goal of getting out of debt. However, individuals differ in their conscientiousness and ability to override and exercise control over one's thoughts and impulses to attain preferred long-term goals (Baumeister et al. 2007). Research suggests that individual differences in self-control is a key predictor of consumer debt (Moffitt et al., 2011; Norvilitis et al., 2006), such that individuals with low self-control tend to have greater debt problems than those with high self-control (Baumeister et al. 2007). Given that those low in self-control have more myopic tendencies, are less able to delay gratification, and behave less consciously (e.g., they are less likely to complete assignments and meet commitments), we propose that consumers who are low in self-control would benefit the most from setting specific, smaller, more proximal goals (e.g., paying off one account at a time). Thus, we predict that low self-control individuals will benefit motivationally from paying off individual debt accounts sequentially.

Study 1 provides an initial demonstration of the contrasting effect of debt repayment scheme on consumers with low versus high self-control. The focal task was to generate as many words (minimum length of 4 letters) as possible from a string of 8 letters in one minute. This was done for a total of 10 minutes, divided into ten rounds of one minute each, with a different letter string presented in each round. Participants earned a small monetary reward for each word. All participants began the task in a debt position, with the debt divided into 5 accounts of equal value, and they were required to pay off their debt first before they were able to keep any earnings. Participants were randomly assigned to one of two conditions: simultaneous repayment (their earnings were allocated equally across accounts) and sequential repayment (their earnings were allocated to accounts one-at-a-time). Self-control was measured using the Brief Self-Control Scale (Tangney et al., 2004). The results indicate that the performance of individuals with low self-control, but not those with high self-control, was influenced by the debt repayment scheme, such that low self-control participants performed significantly better when paying off their debt accounts one-at-a-time.

Beyond one's beliefs about their own capabilities to succeed, in the domain of debt repayment, whether or not one has the resources to succeed is equally as important. Study 2 was designed to examine whether goal attainability affects the interplay between self-control and debt repayment scheme. In addition to whether individuals repaid their debt sequentially or simultaneously, we manipulated the amount that individuals could earn for generating words, such that individuals in the low-reward treatment would find it nearly impossible to pay off their debt. As predicted, among individuals in the high-reward condition (i.e., who were able to pay off their debt), low self-control individuals performed better when paying off their debts sequentially rather than simultaneously; by contrast, this interaction between self-control and debt repayment scheme was not present in the low-reward condition (i.e., when participants could not become debt-free).

Depending on the financial advice book that one chooses, a consumer might be influenced to pay off their debts in a different order. Study 3 was designed to examine how expert recommendations affect the interplay between debt repayment scheme and self-control. To do so, we manipulated whether or not participants received a recommendation and, for those who did, we manipulated whether the recommendation was to pay off debts simultaneously or sequentially. Participants who received a recommendation then chose a debt repayment scheme. In the control condition and the sequential-payment-recommended condition, low self-control individuals performed better when paying off their debts sequentially rather than simultaneously; however this pattern was reversed when simultaneous payment was recommended. By contrast, high self-control individuals were not affected, which suggests that the effect of debt repayment scheme on the motivation of low self-control individuals can be changed by changing their beliefs in which

repayment scheme is more motivating.

This research is the first to examine how the order in which one repays debt accounts can influence their motivation to get out of debt. Although prior work has shown that consumers prefer to close off debt accounts one at a time (Amar et al. 2011), it has not investigated the motivational consequence of doing so. This work marks an important step in answering the question that is of particular interest to academics and policy makers; how should consumers pay off their debts?

For more information, contact: rtrudel@bu.edu

Hot and Impulsive: A Metaphor Gone Literal

Hee-Kyung Ahn, Hanyang University, Korea*

Nina Mazar, University of Toronto, Canada

Temperature-related words such as “hot” and “heat” are often used to describe impulsive behaviors in everyday life (e.g., ‘hot-headed, impulsive murder’) as well as in judgment and decision making (“hot system”). In these expressions, “hot” is understood metaphorically rather than literally. That is, the terms ‘hot-headed’ and ‘impulsive’ are regarded as interchangeable and lexically synonymous. Interestingly, recent research suggests that metaphoric associations can influence perceptions and behavior (see e.g., Nelson and Simmons 2009; Zhong and Liljenquist 2006). For example, because the cardinal directions north and south are generally associated with the vertical positions up and down, and going uphill is considered more difficult than going downhill, people actually think of northbound travel as more effortful, more difficult, and costlier than southbound travel (Nelson and Simmons 2009). These observations raise the question whether the association between ‘hot’ and impulsivity is more than just metaphorical. That is, given that temperature is an ever-present stimulus in our daily lives, do hot temperature and temperature related concepts systematically affect consumer wants, their risk-seeking, or myopia? Across one pilot study and three laboratory experiments with differing, cross-modal temperature-priming manipulations as well as various operationalizations of impulsivity, this paper demonstrates causal effects of hot temperature on impulsive judgments and decision making.

To explore the link between temperature and impulsivity and see whether hot temperature (vs. cold) is likely to trigger impulsive behavioral tendencies, we conducted a field study at a spa. The spa had rooms of varying temperatures, and we selected one cold and one hot room that were considered to be equally (un)pleasant. In particular, participants were asked to make a choice between a more impulsive smaller sooner (SS) reward and a less impulsive larger later (LL) reward and to indicate their willingness to pay for a hedonic product, a home theater system. We found that the majority of participants in the hot room choose the SS reward over the LL reward, whereas the majority of participants in the cold room showed the opposite pattern. In addition, participants in the hot room indicated a higher willingness to pay for the home theater system than participants in the cold room. These effects did not seem to be driven by differences in mood.

Experiment 1 was designed to replicate the effect of real temperature in a more controlled setting but this time with a localized rather than ambient temperature manipulation (i.e., wearing hot and/or cold therapeutic packs on one’s arms). In addition, we used a different operationalization of impulsivity by measuring the error rate for a question that evokes an intuitive wrong answer: the “bat and baseball” question (Frederick 2005). We found that hot temperature (vs. cold, hot&cold, and no packs-control) increased the error rate for answers to the bat and baseball question but not so for filler questions. The findings from Experiment 1 demonstrated that there is a hot-impulsivity link and that this link is less likely dependent on people’s global body temperature-experiences. Instead, simply experiencing physical temperature

locally is enough. This observation suggested the possibility of a conceptual priming effect of temperature on impulsivity.

Experiment 2 tested whether conceptually priming hot temperature (i.e., through a scrambled sentence test) would lead to similar increases in impulsivity as real temperature-primers did. In addition, we wanted to examine yet other operationalizations of impulsivity: the ability to delay gratification and the desire to purchase wanted items. As expected, in the hot priming condition, the majority of participants chose a more impulsive one-year bank term deposit option over a less impulsive three-year bank term deposit. In contrast, in the cold priming condition, the majority of participants chose the three-year bank term deposit over the one-year bank term deposit. Second, participants in the hot priming condition were willing to pay significantly more for a birthday dinner than those in the cold priming condition.

Experiment 3 expanded the temperature manipulation to a visual prime (i.e., summer vs. winter scenic pictures). In addition, aside from testing effects on the delay of gratification and willingness to pay as operationalizations of impulsivity we also added a measure of risk-taking (i.e. choosing between two gambles of equal expected value but different risk-levels). Similar to Experiment 2, for the bank term deposit decision we found that the majority of participants, who were primed with the summer pictures, chose the more impulsive one-year bank term deposit over the less impulsive three-year bank term deposit, whereas the majority of participants primed with the winter pictures chose the less impulsive three-year bank term deposit over the more impulsive one-year bank term deposit. Also, participants primed with the summer pictures had a higher willingness to pay for three products than participants primed with the winter pictures. Finally, participants primed with the summer pictures were more likely to choose a more impulsive low probability–high payoff (i.e. riskier) option over the less impulsive high probability-low payoff (less risky) option than those primed with the winter pictures.

Across one pilot-study in the field and three laboratory experiments, we find that physical hot temperature (ambient temperature in a spa and locally experiences temperature through therapeutic packs) as well as conceptual hot temperature-primers (words and pictures) increase impulsive judgment and decision-making in comparison to cold temperature primers. In particular, participants in our hot (vs. cold) conditions generally indicated a higher willingness to pay for products, were more likely to choose smaller–sooner rewards, were more risk-seeking, and were more likely to give an incorrect answer to a question with an intuitive but wrong answer. Furthermore, we found that our observed effects were neither mediated by individuals actually feeling hot nor by changes in self-reported mood or arousal.

Collectively our findings contribute to the literature on embodied cognition. In addition, our findings suggest that marketers could make systematic use of various temperature-primers (e.g., through color, words, or pictures in ads or on packaging) to promote, for example, higher willingness to pay as well as shortsighted and risky decisions – ranging from substantive decisions about investment products to more trivial decisions about everyday household products.

For more information, contact: hkahn@hanyang.ac.kr

4.6 Individual Papers: Any Dream Will Do: Judgment and Decision Making

Room: Mesquite 2

Chair: Elanor Williams, University of Florida, USA

The Influence of Rankings on Attribute Weights in Multi-Attribute Decision Tasks

Simon Quaschnig, University College Ghent - Ghent University, Belgium*

Mario Pandelaere, Ghent University, Belgium

Iris Vermeir, University College Ghent - Ghent University, Belgium

Rankings have become a part of our everyday life and are an ever more popular decision aid (Hakanen 2002). Nevertheless, little is known about their effect on consumers' decision making. One important aspect pertains to the influence rankings have on the weight consumers give to the different attributes. While it is generally believed that ranking options on one attribute will cause an increase in the weight of that attribute (Cai and Xu 2008; Russo 1977), the underlying process is not yet clear. The current paper investigates two alternative mechanisms through which rankings may influence attribute weights: the conversational norms mechanism and the processing fluency.

The *conversational norms mechanism* (cf. Schwarz 1994; Sperber and Wilson 1986) proposes consumers may infer from the choice of attribute the ranking is sorted on, that this attribute is considered as important by many consumers and therefore focus mainly on this attribute in their decision. The conversational norms mechanism implies that more attention leads to higher weights (MacKenzie 1986).

The *processing fluency mechanism* proposes that consumers' perception of attribute importance may be caused by the perceived ease or difficulty of information processing (Schwarz 2004). One important aspect hereof is the comparability of choice options (Nowlis and Simonson 1997). Sorting several options on one particular attribute makes it easier to compare the options on that attribute, and hence makes it easier to grasp the true value of some attribute level. People may misinterpret this ease of processing as indicative of attribute importance and, hence, may consider the sorting attribute as more important.

The fluency mechanism implies a specific boundary condition. While a ranking may facilitate the interpretation of attribute levels by making comparison easier, some attributes are inherently easy to interpret and require little to no comparison (because people have more information on the range of this attribute). Such interpretable attributes (as further called in this paper) are associated with faster and less complex processing (Reber, Schwarz and Winkielman 2004). One example is price information. People are often able to compare prices even without sorting. Thus while the choice of sorting attribute may have an effect on the weight of attributes that require comparison, we expect that this effect will not occur for interpretable attributes.

Three experiments examine the mechanism through which rankings influence attribute weights. In all three experiments, participants indicated how attractive they found 10 choice options, with two uncorrelated attributes. They evaluated ten internet subscriptions sorted on either the subscription costs (interpretable attribute) or the download speed (less interpretable attribute according to pretesting). Attribute weights were estimated by multilevel regression analysis. Study 1 demonstrated the main effect of the choice of sorting attribute on attribute weights. The results revealed that the choice of sorting attribute partly had an effect on the attribute weights in consumers' product evaluation. The weight of the less interpretable attribute was higher when options were sorted on this attribute. The weight of the interpretable attribute, in contrast, was unaffected by the choice of sorting attribute.

In the second experiment we investigated the role of attention in the relationship between sorting and attribute weights. This study also helped us to pit the two proposed mechanisms against one another. While the conversational norms mechanism implies an increase of attention toward an attribute when chosen as sorting attribute, attention toward the sorting attribute will decrease when the fluency explanation holds. After all, ranking enables consumers to process this attribute faster as it makes option comparison for the attribute easier (Viswanathan and Narayanan 1994). We repeated the first study in an eye-tracking setting. The results replicate those of the first study, since only the weight of the less interpretable attribute was affected by the choice of sorting attribute. Interestingly, the eye-movement data indicated that attention towards the less interpretable attribute decreased when the ranking was sorted on this attribute, while attention towards the interpretable attribute was always low, independent of the sorting (figure 1). These findings rule out the conversational norms mechanism. A mediation analysis could not confirm that the decrease in attention explains the effect of sorting on attribute weights. Instead, the results showed a suppression effect. While we found a positive attention-importance relationship, another, larger, factor is associated with an increase in attribute weights for the sorting attribute. A probability analysis revealed that consumers engage in more comparisons among the less interpretable attribute when it was chosen as sorting variable, despite paying less attention to the attribute overall. Consequently, we propose the ease of comparison as an explaining variable. This will be tested in the last experiment.

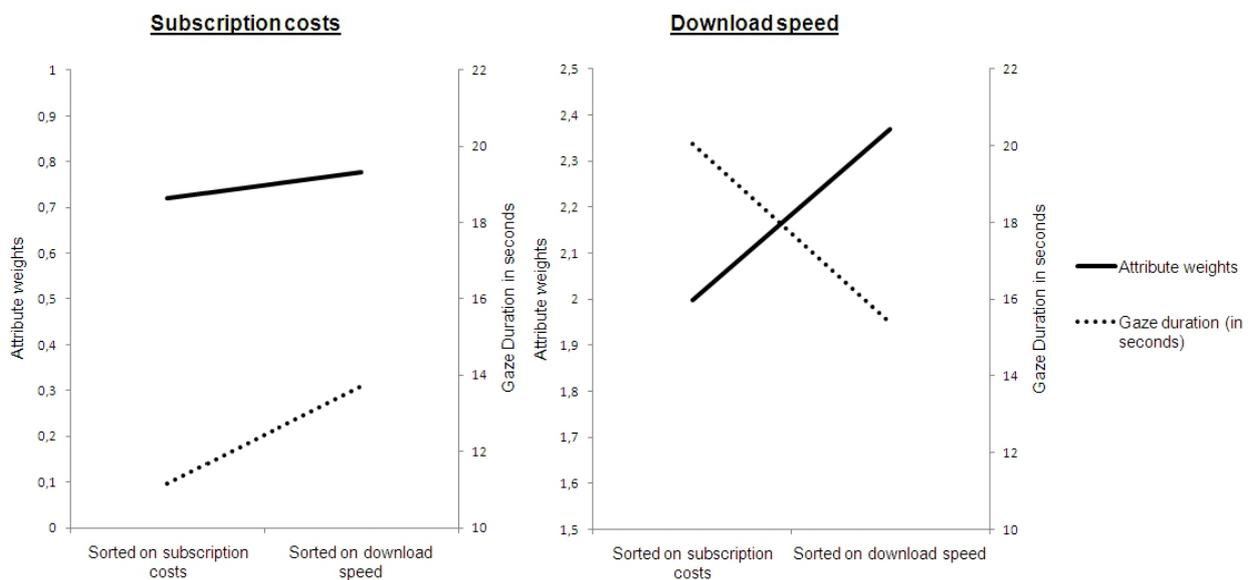


Fig. 1. Effect of sorting on attribute weights and gaze duration (study 2)

In study 3 we used a cognitive load manipulation. According to Winkielman et al. (2003), the fluency effect should increase under cognitive resource limitations, since the integration of additional product information is hindered. This would also provide evidence for the ease of comparison proposition. A high cognitive load impedes the comparison of non-sorted attributes, even for interpretable attributes. Only the sorting attribute will lend itself to comparisons. In a 2x2 design, participants were given the task of the previous studies, but now they had to additionally remember a 7-digit number or a 2-digit number (respectively the high and low cognitive load manipulation, Shiv and Fedorikhin 1999). While the results under the low cognitive load manipulation replicate those of the first two studies, the sorting effect is accentuated when the cognitive load is high (figure 2). Confirming our expectations, both the more and less interpretable attributes are positively influenced by the choice of sorting attribute under low processing resources.

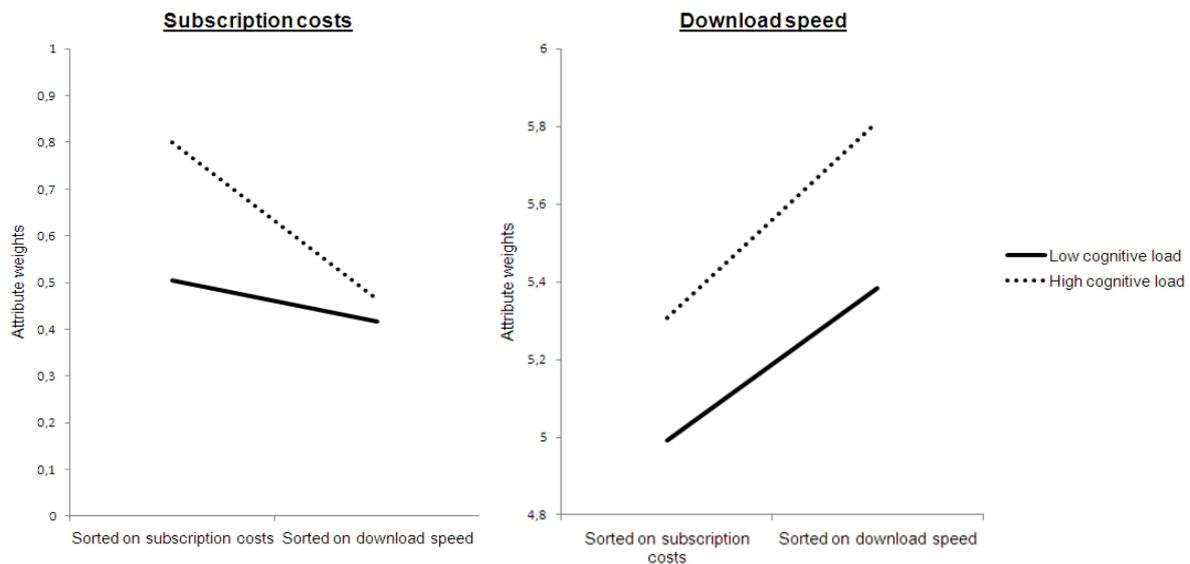


Fig. 2. Effect of sorting on attribute weights under low and high cognitive load (study 3)

The present research sheds light on a very under-researched, yet interesting topic. Rankings play an important role in various multi-attribute choice situations. Nevertheless, their impact on the importance of involved attributes is not yet clear. The results of this paper confirm the proposed effect of rankings on attribute weights and deliver a conclusive explanation. The current research shows that the decision how to present options in a ranking may not be without consequences.

For more information, contact: simon.quaschnig@hogent.be

Are All Units Created Equal? The Effect Of Default Units On Product Evaluations

Christophe Lembregts, Ghent University, Belgium*

Mario Pandelaere, Ghent University, Belgium

Prior research on numerosity effects has yielded converging evidence that consumers often infer bigger quantity from bigger numbers (e.g. Pandelaere, Briers, and Lembregts 2011). For instance, an attribute difference looms larger when it is expressed in large numbers (i.e. small units) rather than small numbers (i.e. large units). However, past research seems to be based on the assumption that the units in which information is conveyed do not differ in evoked meaning. Consequently, the choice of specific unit in which attribute levels may be expressed seems arbitrary. In contrast with this assumption, we argue that for many attribute levels default units exist. For instance, consumers are probably more accustomed to see battery life expressed in days rather than in hours; days then constitutes their default unit for battery life. This raises the question whether consumers would still infer longer battery life if it is specified in hours (i.e. in larger numbers) rather than in days (i.e. in smaller numbers).

We offer converging evidence that this is not the case. In general, we propose that attributes expressed in default units typically generate more positive product evaluations due to enhanced ease of processing (i.e. fluency; Schwarz 2004), irrespective of the nominal value of the attribute.

Drawing on the stream of literature on numerical cognition, we suggest that the existence of default units is in many cases rooted in the way numbers are represented in the human brain (Cohen Kadosh, Tzelgov, and Henik 2008). Specifically, precision of number representation declines rapidly with increasing number size. Given that smaller

natural numbers are represented more precisely in the human brain, we argue that units which provide information in smaller numbers are often preferred and therefore more frequently used as defaults. This notion is consistent with research examining frequency of numbers in language. This research confirms that smaller numbers are used more often than larger numbers in daily communication (Dehaene and Mehler 1992). In the case of battery length, people prefer a low score on this attribute to be expressed in minutes or hours. For a higher score, people prefer days.

In a pilot study, we asked 50 participants to imagine a new product attribute. We told participants that this new product attribute did not yet have a scale onto which information was mapped. Participants were then asked to choose a range of numbers out of which the scale should consist. Participants could choose between three scales: the first scale contained numbers ranging from 10 to 100, the second ranged from 0,1 to 1 and the third had a 100 to 1000 range. In line with our theorizing, 70% of the participants preferred the scale containing smaller natural numbers (i.e. 10-100).

In study 1, 74 participants were randomly assigned to one of two conditions and all were presented with an advertisement for a smartphone. The smartphone was described on one attribute: warranty. In the *high numbers – non default* condition, warranty was specified in weeks (80 weeks). Here, the attribute was specified in rather small units (i.e. in large numbers). In the *low numbers – default* condition, information was presented in years (1,5 years). In this case, warranty was presented in rather large units (i.e. in small numbers). A pilot study showed that for warranty 1,5 years was rated as more familiar than 80 weeks.

In line with our hypotheses, a smartphone described in default units generated a higher willingness to pay ($M_{\text{default}} = €161$) than when it was specified in non-default units ($(M_{\text{non-default highnum}} = €128; F(1,74) = 4.79, p < .05)$).

In experiment 2, we wished to unravel the mechanism behind this effect. To achieve this, we utilized a misattribution paradigm (Schwarz et al. 1991). Background music was playing during the session. In the *non-diagnostic music* conditions, participants were informed that they were invited to evaluate a cell phone and answer some additional questions afterwards. Here, no specific information was given about the background music. In the *diagnostic music conditions*, we told participants that the experiment dealt with the influence of music on product evaluations. Moreover, we told them that previous research had shown that music has an influence on experienced feelings. Next, all participants were shown a cell phone for which warranty was displayed. In the *default unit* condition, warranty was expressed in years. In the *non-default unit* condition, warranty was specified in days. Note that, relative to the former condition, the face value of the latter condition was substantially higher.

In the non-diagnostic music conditions, planned contrasts showed a significant difference in attractiveness ratings between default and non-default unit conditions ($F(1,85) = 8.17, p < .05$). That is, the cell phone was rated more attractive when warranty was specified in years (default unit) than when it was specified in days (non-default unit) ($M_{\text{default}} = 6.28$ vs. $M_{\text{non-default}} = 4.47$). This pattern replicates the key finding of experiment 1. Further, consistent with our hypothesis, in the diagnostic music conditions, this difference in attractiveness was not significant ($M_{\text{default}} = 5.30$ vs. $M_{\text{non-default}} = 5.72; F(1,85) = .50, p = .48$). In these conditions, participants discounted the metacognitive cues generated by the attribute information.

In study 3, we draw on the finding that people who habitually engage in abstract thinking are less influenced by metacognitive cues (Tsai and Thomas 2011). Participants' prevailing construal style was administered by a modified version of the Behavioral Identification Form (Vallacher and Wegner 1989). Analyses revealed an interaction between attribute frame and prevailing construal style ($F(1,154) = 4.03, p < .05$). Participants with a prevailing concrete mindset were willing to pay more when a cell phone was described in default units ($\beta = 1.17, t(154) = 2.21, p < .05$). For participants with a prevailing abstract mindset, however, no differences were found between the two attribute frames (p

= .53).

In sum, the present work offers a more nuanced understanding of how specifying attributes in an alternative unit influences consumer's evaluations. Specifying attribute information in alternative units alters metacognitive experiences and thereby affects product evaluations.

For more information, contact: christophe.lembregts@ugent.be

Power, Regret, and Choice Deferral

Mehdi Mourali, University of Calgary, Canada*

Frank Pons, University Laval, Canada

Derek Hassay, University of Calgary, Canada

A basic property of our social world is that some individuals and groups possess more power than others. A company's CEO, for example, is typically more powerful than the company's janitor, a journal editor has more power than a submitting author, and a majority group is usually more powerful than a minority group. Furthermore, people regularly experience feelings of being both powerful and powerless, regardless of where they stand in the social hierarchy. Being asked for one's expert advice, for example, may induce a psychological state of feeling powerful (even if one is not a CEO), whereas being evaluated by one's peers may evoke a sense of powerlessness. This research examines how these subjective feelings of power influence consumers' tendency to postpone certain decisions.

Consumers often defer a choice when presented with several attractive alternatives (Dhar, 1997; Tversky & Shafir, 1992), even when each alternative on its own is seen as sufficiently attractive (Iyengar & Lepper, 2000). This paper proposes that a high sense of power can both increase and decrease consumers' propensity to defer choice. More specifically, it is argued that power reduces the ability to anticipate future regret, which, in turn, may lead to either more or less choice deferral, depending on whether choosing or deferring is the more justifiable decision.

Three experimental studies using different manipulations of power and regret provide consistent support for the proposed effects and their underlying mechanism, while ruling out alternative mechanisms. For instance, previous research on choice deferral (Dhar, 1997; Luce, 1998; Tversky & Shafir, 1992) suggests that difficulty in deciding amongst the available options is the main reason why consumers elect to postpone a choice. Thus, it is possible that the effect of power on choice deferral is due to differences in perceived decision difficulty rather than anticipated regret. It could be argued that powerful individuals perceive the choice task as less difficult, and hence are less likely to defer choice than powerless individuals.

In study 1, participants' sense of power was manipulated by varying their capacity to influence a company's marketing decisions. When asked to choose one of three products or defer their choice to a later time, high power participants were significantly less likely to defer (19.7%) than low power participants (52.5%) ($\chi^2_{(1)} = 14.22, p < .01$). Furthermore, the effect of power on deferral was mediated by anticipated regret. Finally, power had no effect on perceived decision difficulty.

Study 2 was designed to further clarify the regret-based mechanism. We reasoned that powerful individuals are less likely to consider the possibility of a bad decision, and thus less likely to anticipate regret. This is different from the idea that power reduces the influence of anticipated regret on choice deferral (i.e., the powerful are just as likely as the powerless to anticipate regret but they ignore it when making a decision). In other words, we argued for differences in

the accessibility of anticipated regret but not necessarily in its diagnosticity. Accordingly, we predicted that when regret is made salient, powerful consumers would be at least as likely to defer as consumers with less power. Study 2 tested these predictions in a 2 (high power vs. low power) X 2 (salient regret vs. control) between-subjects design. Power was primed using a scrambled sentence task (Smith & Trope, 2006). Participants were presented with three purchase scenarios (bike helmets, cordless phones, and printers) in which they could choose one of two options or defer their choice to a later time. Before indicating their choice in each product category, participants in the salient regret condition, but not those in the control condition, were prompted to think about how much regret they would feel if they made the wrong choice.

In the control condition, the choice patterns mirrored those found in study 1. Across all three scenarios, participants in the high power group were less likely to defer their choices (21.5%) than those in the low power group (45.2%), ($\chi^2_{(1)} = 11.71, p < .01$). In contrast, and consistent with predictions, high power participants in the salient regret condition, were slightly more likely to defer their choices (61.3%) than low power participants (52.7%), though the difference was not statistically significant ($\chi^2_{(1)} = 1.40, p = .24$).

In the first two studies, we focused on purchase situations in which consumers generally associate more regret with a decision to choose than with a decision to defer. In study 3, we examined a purchase situation in which greater regret is associated with delaying one's decision than with choosing now. Here, we found that low power consumers, who are more inclined to anticipate regret, were significantly less likely to defer choice (24.7%) than high power consumers (43.2%), ($\chi^2_{(1)} = 12.39, p < .01$). However, when regret was made salient, the effect of power on deferral disappeared (16.7% vs. 17.3%), ($\chi^2_{(1)} = .02, p = .88$).

These findings have important implications for the current power literature. One of the key tenets of the approach/inhibition theory of power (Keltner et al., 2003; Galinsky et al., 2003) is that elevated power promotes action whereas powerlessness leads to inaction and avoidance behavior. Our results, however, suggest that the power/action relationship may not always operate in the same direction. This is because anticipation of regret mediates the relationship between power and action/inaction. In other words, to accurately predict the effect of power on action/inaction, one must understand the nature of the relationship between regret and action/inaction.

For more information, contact: mehdi.mourali@haskayne.ucalgary.ca

Forceful Phantom Firsts: Framing Experiences as Firsts Amplifies their Influence on Judgment

Robyn LeBoeuf, University of Florida, USA

Elanor Williams, University of Florida, USA*

Lyle Brenner, University of Florida, USA

First impressions matter. Indeed, first experiences often reasonably receive more weight than later encounters: for example, people likely draw stronger inferences from a bad restaurant experience if it is their first experience at that restaurant than if it is their 20th experience at the same (otherwise good) restaurant. However, we suggest that whether an experience is coded as a first can be subjective and that framing manipulations may be able to make information seem like first information even when it is not. We further suggest that, because people generally associate "being first" with "being important," people may treat information that is merely framed as first information as more important than they would otherwise.

In our studies, all participants considered the same sequence of information. In one condition, we framed one piece of

that information as a first. For example, in study 1, all participants read about a week in Paris during which Sunday through Thursday were sunny and warm, but Friday was cool and rainy. Some participants read that they arrived in Paris on Sunday, making Friday their sixth day in Paris. Others read that they arrived on Friday, making Friday their first day in Paris. (Friday's weather was still the sixth piece of information that they saw; Sunday through Thursday corresponded to weather before the trip.) Participants then predicted the weather for the next day (Saturday) and beyond. Consistent with information being more influential when it is framed as a first, participants whose first day in Paris was Friday predicted cooler, rainier future weather than did those for whom Friday was their sixth day. Even though the information and its sequencing were held constant, information was more influential when it was connected to a first.

Study 2 involved an even more arbitrary first. Participants read six reviews of a hotel: the first five were positive and the sixth (from a December 21 visit) was negative. Some read that this negative review was submitted December 30, whereas others read that it was submitted January 2 (making it the first review of the year). Participants then rated their impression of the hotel on several dimensions. When the negative review was framed as a first, participants had worse impressions of the hotel and were less inclined to stay there.

Study 3 highlighted an important boundary condition of these phantom-first effects: framing information as a first only enhances its impact if that information offers something new, distinctive, and potentially important. Applying first framing to a good experience at a usually good coffee shop did not improve the shop's evaluations, but applying it to a negative, surprising experience substantially increased that experience's impact. Study 3 also found that first framing did not improve memory for the framed information, suggesting that phantom-first effects are not primarily driven by people paying extra attention to information when it is framed as a first.

Whereas study 3 suggested that phantom-first manipulations may not increase the attention paid to first-framed information, studies 4 and 5 suggested that phantom-first effects may instead arise because first-framed information seems more important and receives extra weight in judgment. In study 4, participants considered both sets of weather reports from study 1. They compared the series where the rainy day (which appeared sixth in the sequence) was the first day in Paris to the series where it was the sixth. Even though participants could see that the two series were objectively the same and had to attend to both to compare them, they rated the rainy day as a more important predictor of future weather (and rated future weather as worse) when the rainy day was first-framed. In study 5, participants considered study 2's hotel reviews, reading either the series where the bad review was the first of 2010 or where it was the last of 2009. Participants were more likely to choose that bad review as one of the most important reviews for a traveler to read when it was framed as a first.

Thus, the degree to which impressions seem like first impressions is malleable. Experiences that merely *seem* like firsts are more influential and are given more weight in judgment, apparently because phantom firsts (like actual firsts) seem more important. This finding emphasizes the sensitivity of judgment to framing and context, and it sheds an interesting light on primacy effects in impression formation (e.g., Anderson 1965). Our data suggest the existence of "pseudoprimacy effects," in which non-first information can arbitrarily be given the status of first information and thus affect judgment more heavily than before.

This work suggests intriguing practical and managerial applications. For example, imagine someone who made a negative first impression on a colleague. Might she be able to reset that impression by later highlighting an irrelevant first (e.g., "Welcome to our first team meeting of the new year")? Similarly, imagine a restaurateur who is about to introduce a tasty new summer menu: might he foster more favorable impressions by inviting people to sample a "first taste of the summer?" Of course, people's tendencies to form strong impressions when they are experiencing firsts may not be uniformly beneficial for targets: the restaurant that has a bad day while many of its customers are experiencing

novelty, as on the first day of the semester, may be especially penalized. Still, we take a more optimistic view: it seems that, despite what the old adage says, you can indeed get a second chance to make a first impression.

For more information, contact: leboeuf@ufl.edu

4.7 Conversations: Helping Consumers

Room: Mesquite 1

Lisa E. Bolton, Pennsylvania State University, USA

Alexander Chernev, Northwestern University, USA

Deborah Small, University of Pennsylvania, USA

Working Papers: Working Paper Session 2

1. ***Sharing Stupidity: The Effect of Gift-Cards on the Willingness to Share Negative Word-of-Mouth***

Matthew Philp, Queens University, Canada*

Laurence Ashworth, Queens University, Canada

Results of previous research would predict that a dissatisfying consumer experience would result in a high motivation to share negative word-of-mouth (NWOM). However, this current research shows that these effects are reduced when the sharing of NWOM portrays an image as an incompetent consumer but drastically increases when these concerns are not present. By manipulating perceived consumer competence by controlling for the responsibility of store selection (with the use of gift-card or cash) and by driving negative post-purchase feelings by altering the consumer performance of a relevant social target, the amount of NWOM subsequently shared is measured.

For more information, contact: mphilp@business.queensu.ca

2. ***When Brands Flatter, Personality Matters***

Amelie Guevremont, Concordia University, Canada*

Bianca Grohmann, Concordia University, Canada

The current research focuses on the impact of flattery from a brand in the context of an ongoing relationship with that brand. In addition to looking at different effects of flattery depending on the personality of the brand—and revealing that a sincere brand is hurt by a flattery whereas an exciting one is helped by this action—, it explores in a second study the potential explanations for these effects, for example the role of brand trust. This research is built on personality literature, as consumers interact with brands in a similar way than they do with humans, attributing them distinct personalities (Aaker, 1997), developing strong and long-lasting relationships (Fournier, 1998), and reacting differently depending on the partner's personality (Aaker, Fournier & Brasel, 2004). The results of two studies extend prior knowledge on brand personality and flattery, two topics studied together for the first time, and opens the door for future researches.

For more information, contact: a_guevr@jmsb.concordia.ca

3. ***The Impact of Phonetic Symbolism on Stock Performance***

L. J. Shrum, University of Texas at San Antonio, USA

Tina M. Lowrey, University of Texas at San Antonio, USA

Mark Nespoli, University of Texas at San Antonio, USA*

Victor J. Cook, Jr., Tulane University, USA

The processing fluency of stock ticker symbols (reflected by their pronounceability) has been shown to be positively related to stock price movements (Alter & Oppenheimer, 2006). This study investigated another factor that may predict stock prices, phonetic symbolism (the notion that the mere sound of the name conveys meaning). Using Alter and Oppenheimer's set of pronounceable ticker symbols, we coded the extent to which the ticker symbol name exhibited front vs. back vowel sounds. Results indicated the back vowel sound names performed better than front vowel sound names after one day, after six months, and after one year of trading.

For more information, contact: mark.nespoli@utsa.edu

4. ***No Fever for Bieber: Fear of Rejection from One's Ingroup as a Consequence of the Stereotype Threat Created by Dissociative Groups***

Mohammed El Hazzouri, University of Manitoba, Canada*

Sergio Carvalho, University of Manitoba, Canada

Kelley Main, University of Manitoba, Canada

Across two experiments, we show that demonstrating competence in a domain related to dissociative groups impairs performance and creates fears of being rejected by one's own group. Specifically, consumers exhibited poor performance in assembling a puzzle of Justin Bieber when they believed that high performance would suggest they were associated with his fan base. More interesting, our results also show that priming money reduces those threatening effects of stereotypes linked to dissociative groups.

For more information, contact: umelhazz@cc.umanitoba.ca

5. ***I Take Therefore I Choose? Antecedents & Consequences of Embodied Choice***

Rhonda Hadi, City University of New York, USA*

Lauren Block, City University of New York, USA

This research investigates the consequences of either physically taking an item (active embodiment) vs. being given an item (passive embodiment). We suggest that physically performing such active vs. passive activities can alter an individual's perception of choice, and thus have consequences on an individual's evaluation and purchase intention of a product (Study 1), as well as impact an individual's evaluation of a task (Study 2). We further suggest that these relationships are moderated by an individual's trait reactance.

For more information, contact: Rhonda.Hadi@baruch.cuny.edu

6. ***Does Practice Make Perfect? An Analysis of Experiential Learning Performance in Seniors vs. Young Adults***

Ashley Goerke, Temple University, USA*

Dr. Eric Eisenstein, Temple University

Dr. Ayalla Ruvio, Temple University

Consumers are constantly expected to make inferences (about fair market price, product quality etc.) and develop product knowledge based on repeatedly observed, but relatively undefined constructs. This research examines the differences in developing price referent knowledge, based on the repeat exposure to multi-attribute product profiles, between senior citizens and traditionally studied undergraduate students. It is hypothesized, and subsequently corroborated through empirical research, that a lifetime full of experiential learning may lend itself to the honing of certain cognitive skills, and therefore results in an expertise which enhances elderly respondents' abilities to learn in an experiential context.

For more information, contact: a.goerke@temple.edu

7. ***The Effect of Sleep Deprivation on Imagery Appeals***

Ashley Rae Arsena, University of Texas at San Antonio, USA*

Tim Böttger, University of St. Gallen, Switzerland

Sleep Deprivation (SD) is a widespread phenomenon. This research investigates the effect of SD on imagery appeals. Imagery appeals urge consumers to imagine additional information to support the target advertisement message and are an influential part of persuasion. Study 1 found that low SD individuals have increased brand attitudes after exposure to an imagery appeal relative to a non-imagery appeal. However, the opposite result was found for high SD individuals. High SD individuals showed increased brand evaluations after exposure to a non-imagery appeal relative to an imagery appeal. Potential underlying mechanisms are discussed.

For more information, contact: Ashley.Arsena@gmail.com

8. ***Why do We Like What We Like? How Choice Shapes Preferences***

Chenyang Tang, Emory University, USA*

Modern economic theories have long asserted that choice simply reflects an individual's preferences, whereas a psychological phenomenon called 'cognitive dissonance' suggests that choice may also shape preferences. Cognitive dissonance theory states that making a choice between two equally preferred items creates a psychological discomfort called 'cognitive dissonance', which is then reduced by decreasing preference for the rejected item. There is, however, a serious methodological problem with the measurement of preferences in previous studies, which casts a doubt on the very existence of this choice-induced preference change. Here, we propose an experimental approach that distinguishes choice from the measurement of preferences, thus eliminating the possibility that choice merely yields information about any measurement error of preferences. Further, we will investigate how this choice-induced preference change is modulated by the exercise of control over choice. We hypothesize that only self-generated choices will increase preferences, as evidenced by the overvaluation of the chosen items and the devaluation of the non-chosen ones.

For more information, contact: ctang7@emory.edu

9. ***Exploring the Influences of Self-Construal and Shopping Values on Behaviors and Emotions of Self-Gift Giving***

Chih-Ping Wang, National Chengchi University, Taiwan*

Increasing evidence suggests that it is more common for consumers to buy products/services as gifts for themselves to celebrate personal achievements or cheer themselves up to eliminate minor depression. However, different self-construal tendencies (i.e., interdependence/independence) and shopping values (i.e., hedonic/utilitarian) may cause distinct shopping behaviors and emotions at different purchase stages while consumers are engaged in self gift-giving. The results of 17 in-depth interviews conducted in Taiwan show that people of these 2 different self-construal and shopping values have distinct information-seeking behaviors, product types, and emotions. Relevant advertising strategies and marketing inferences are developed.

For more information, contact: 93355508@nccu.edu.tw

10. ***The Dark Side of Brand Identification: Schadenfreude Toward Rival Brands***

Joanna Phillips Melancon, Western Kentucky University, USA

Vassilis Dalakas, California State University San Marcos, USA*

Few studies have explored the negative effects of company and brand identification on consumers. A survey of 160 users of Apple products suggests that high brand identification leads to schadenfreude (taking pleasure at another's misfortune) towards entities associated with a rival brand (Microsoft). Additionally, this study revealed that individuals

were more apt to have higher levels of schadenfreude towards nonpersonal targets (the rival company in general) than when the target was named (i.e. the CEO). Findings also suggest that schadenfraude is more pronounced in users of some of a company's products than others.

For more information, contact: joanna.phillips@wku.edu

11. ***The Impact of Mortality Salience on Emotional Persuasion***

Priyamvada Rangan, University of Kansas, USA*

Surendra N. Singh, University of Kansas, USA

Mark J. Landau, University of Kansas, USA

Socioemotional selectivity theory suggests that older adults prioritize emotional goals over rational goals, due to their awareness that they have little time left to live. Research based on terror management theory, suggests that conscious rumination on death serves as a reminder that life is a limited and valuable commodity. We propose that quotidian death-related television programming will differentially influence the evaluation of ensuing commercials that are relatively more emotional or rational in nature. Further, this effect will be mediated by the cognitive accessibility of death-related thoughts. The findings suggest that preference for emotional information is not unique just to older adult populations.

For more information, contact: priyam@ku.edu

12. ***Ironic Effects of Food Commercials on Cognitions and Intentions***

Carolina O.C. Werle, Grenoble Ecole de Management CERAG, France*

Jennifer S. Coelho, University of Savoie, France

Food advertisements are designed to induce cravings and increase consumption; however, it is possible that in food advertisement, imagining eating high-caloric foods may increase feelings of fatness, and induce perceptions of weight gain; a phenomenon known as thought-shape fusion (TSF). The current study investigated if TSF is induced by exposure to food advertisement. Results indicated that female participants reported higher levels of TSF after viewing a food advertisement than did those who viewed a control advertisement, and these women had corresponding intentions to monitor their food intake. Possible implications of these results in advertising are discussed.

For more information, contact: cwerle@gmail.com

13. ***Unmasking Path Model Fit in Consumer and Marketing Research***

William Jones, Wayne State University, USA*

Andrea Tangari, Wayne State University, USA

Larry Williams, Wayne State University, USA

In this paper we examine fit statistics used in structural equation modeling (SEM) analyses. We reassessed SEM models for articles in premiere consumer and marketing journals for a recent ten-year period (2000-2010). Some authors state a preference for the use of the SRMR statistic over RMSEA. We argue that it would be advantageous for researchers to use the RMSEA-P value as a part of their tools to measure model fit. Results indicate that researchers may want to examine using other measures to assess model fit that take into account the path model fit.

For more information, contact: andrea.tangari@wayne.edu

14. *The Determinants of Online Social Identity*

Donna Hoffman, UC Riverside, USA

Thomas Novak, UC Riverside, USA

Randy Stein, UC Riverside, USA*

We evaluate the determinants of online social identity (OSI), the extent to which one's online social graph is seen as critical to one's self-concept. A moderated mediation analysis based on data collected from 193 participants revealed that, consistent with our predictions, OSI increases with greater levels of interdependence, but the effect is moderated by overall life satisfaction. Lower levels of life satisfaction lead to a stronger relationship between interdependence and OSI. Further, this moderated effect is mediated by the tendency to engage in connection-seeking behaviors online. These results further understanding of when online interactions may result in positive outcomes.

For more information, contact: donna.hoffman@ucr.edu

15. *When Consumers' Revenge Proves to be Beneficial*

Inés López, Miguel Hernández University, Spain*

Salvador Ruiz, University of Murcia, Spain

Luk Warlop, K.U. Leuven, Belgium

When a severe service failure takes place, many consumers feel revengeful towards the company. A common way to take revenge is to tell many other customers about the episode. In this paper we do not adopt the usual focus on the detrimental effects of revenge on the company. Instead we focus on the possible beneficial effects of revenge on the consumer. Telling others may serve as a catharsis, reduce dissatisfaction, and thereby reduce the negative effect of the service failure. We conduct an experiment where we analyze the effectiveness of two recovery strategies depending on the possibility of catharsis and consumers' regulatory focus. Results show that catharsis is beneficial for promotion-focused individuals but detrimental for prevention-focused individuals. A follow-up study analyses whether rumination about the compensation qualifies the findings.

For more information, contact: i.lopez@umh.es

16. *The Impact of Culture on Price Cognition*

Lingjiang Tu, University of Texas at San Antonio, USA*

Previous research assumes a universal left-digit effect on price cognition, that is, people tend to perceive nine-ending prices smaller than a price one cent higher. Recent discovery in cultural neuroscience revealed that the assumed universal neural processes involving quantity comparison are actually culture specific. English speakers perceive numbers as words whereas Chinese speakers conceive them with symbolic and spatial freight. Results of the present research argue against the universality of the nine-ending price effect and suggest an impact of culture on consumers' processing of price information. More specifically, the results suggest that thinking styles (i.e. analytic vs. holistic) and information processing sequence (i.e. from-left-to-right vs. from-right-to-left) affect consumers' perception of price magnitude.

For more information, contact: lingjiang.tu@utsa.edu

17. *Affect or Fact: The Role of Factuality and Similarity in Online Reviews*

Martin K. J. Waiguny, Alpen-Adria-University at Klagenfurt, Austria*
 Sonja Grabner-Kräuter, Alpen-Adria-University at Klagenfurt, Austria

The paper examines the influence of message style on the evaluation of online reviews for holiday decision-making. We assume that factual reviews are perceived as more trustworthy, useful, and also increase the intention to follow the reviewer's advice. However, as our research demonstrates this is more likely to be the case for consumers who are demographically dissimilar to the review's source. On the other hand more emotionally written reviews are more appealing to consumers who are similar to the writer of the review.

For more information, contact: martin.waiguny@uni-klu.ac.at

18. ***The Art of Influencing: How a Trip to the Museum Can Make You Eat Less***

Thomas A. Brunner, ETH Zurich, Switzerland*
 Michael Siegrist, ETH Zurich, Switzerland

In the present research, participants were invited for a chocolate tasting. Unobtrusively, a screensaver, depicting three of Giacometti's famous, skinny human-like sculptures, appeared on a computer screen in the room. It was found that participants in this condition consumed less chocolate than when they were exposed to a more neutral work of art by Rothko. After the tasting, participants stated that they did not believe they were influenced by the artwork. Therefore, it is concluded that participants are not aware of the extent to which they are influenced by external cues.

For more information, contact: tbrunner@ethz.ch

19. ***Should Firms Apologize After a Crisis? The Moderating Role of Negative Publicity***

Zack Mendenhall, McGill University, Canada*
 Ashesh Mukherjee, McGill University, Canada

Firms often apologize to consumers after product crises. Prior work suggests that such apologies generally improve the firm's image in customer's eyes. Our research qualifies this finding, by showing that apologies work only when negative publicity is low; when negative publicity surrounding the crisis is high, firm apologies are no longer effective as a crisis management tool. We also show that the moderating role of negative publicity is driven by consumer inferences about the firm's sincerity.

For more information, contact: zachary.mendenhall@mail.mcgill.ca

20. ***The "Oprah Effect": Examining Antecedents and Consequences of Consumers' Attachment to a Human Brand***

Peggy Sue Loro, Gonzaga University, USA*
 Bridgette M. Braig, Braig Consulting, USA

Although "Brand Oprah" has received considerable attention in the business press, the underlying dimensions of the brand's market power have remained relatively unexplored by academic researchers to date. This research expands the existing model of human brand attachment to include antecedents (i.e., autonomy, relatedness, and competence), consequences (i.e., brand loyalty and purchase intentions), and an important moderating factor, namely brand personality appeal (comprised of favorability, originality, and clarity). This model is tested in relation to Oprah Winfrey as a powerful human brand noted for her clarity and consistency and for her focus on fostering consumer competence.

Qualitative and quantitative data are presented.

For more information, contact: loroz@jepson.gonzaga.edu

21. ***Visceral Vigor: The Effects of Disgust on Self-control***

Sachin Banker, MIT, USA*

Joshua Ackerman, MIT, USA

These studies aim to understand how visceral states can actually improve self-control. While commonly considered visceral states like hunger, thirst, and sexual arousal have been shown to induce impulsive behaviors, there is reason to believe, based on shared underlying neural structures involved in both the representation of disgust and in behavioral inhibition, that certain other visceral states can actually improve the ability to control impulses. It is shown that the induction of visceral states such as mild forms of disgust allows consumers to make more controlled choices, better in line with their long term goals.

For more information, contact: banker@mit.edu

22. ***"It Tasted Great, but also Gross": Consumption Memory Alteration With Persistence (But De Facto Contradiction) of Conflicting Consolidated Memories***

Troy Campbell, Duke University, USA*

Ab Litt, Stanford University, USA

Consumers often receive post-consumption valenced information about products, which can alter experience memories (Braun, 1999). In two studies we find that when consumers have explicitly consolidated memories regarding specific experiential aspects, these memories may persist even when non-consolidated memories are prone to alteration by post-consumption information inducing motivated memory distortion. In particular, consumers' memories of non-consolidated attributes can be altered to differ highly in valence from persisting consolidated memories. Thus, altered non-consolidated memories may de facto contradict persistent consolidated memories, without actually changing those consolidated memories. We show that this can lead to surprising counterposed states of valence-conflicting consumer memories.

For more information, contact: thc10@duke.edu

23. ***Hyperreality, the Sign Economy, and the Place for Authenticity in a Post-Modern World***

G. David Shows, Louisiana Tech University, USA*

The age of Post-Modernism is highlighted by two important conditions; the sign economy, where words and mental images associated with a referent are exchanged between individuals and consumption is semiotic, and hyperreality, where consumers engage in realities they create, where the environments are both real and imaginary, and are constantly being constructed and consumed. In such a world, where do consumers determine the value of an experience? This paper explores authenticity, its importance as a psychological marker of value, and a definition of authenticity based on post-modern concepts.

For more information, contact: david.shows@yahoo.com

24. ***Individual Differences in the Effect of Evaluative Conditioning: The Influence of Self-Regulatory Focus***

Katrien Meert, Ghent University, Belgium*

Mario Pandelaere, Ghent University, Belgium

Previous research has widely investigated the effects of and processes underlying evaluative conditioning (EC), but has ignored the potential existence of interpersonal differences. In this paper, we investigate whether people's self-regulatory focus moderates a robust learning effect, like EC. Two studies demonstrate that evaluative conditioning of positive valence is moderated by self-regulatory focus. In particular, promotion-oriented individuals exhibit an increased attention for positive stimuli and an improved learning of positive valence. Evaluative conditioning of negative valence, however, was not moderated by self-regulatory focus.

For more information, contact: katrimee.meert@ugent.be

25. ***Embodied Regulation of Purchase Quantity Decisions: Can a Cart's Handlebar Make the Difference?***

Mathias C. Streicher, University of Innsbruck, Austria*

The psychology of consumers' purchase quantity decisions has become a thriving field of consumer research not least owing to its economic importance to managers. Research thus far has focuses largely on product or promotion-related variables. Embodiment studies show that sensorimotor stimulation can influence quantity decisions in consumption settings. We address the question if sensorimotor stimulation can influence quantity decisions in a shopping situation that precedes consumption. Three experiments show how sensorimotor primes from a shopping cart's handlebar influence quantity decisions in a shopping situation, suggesting an embodied regulatory focus to be the causal mechanisms.

For more information, contact: mathias.streicher@uibk.ac.at

26. ***Is the Preference for Improving Sequence Universal? – Exploring the Effect of Option Valence***

Min Liu, University of Texas at San Antonio, USA*

L. J. Shrum, University of Texas at San Antonio, USA

Previous research has demonstrated that people have a preference for improving sequence when they are presented with multiple choices and the frame of sequence is salient. Most of these experiments have used a mixture of positive and negative choices as the stimuli. Two experiments tested the proposition that sequence preferences depend on the valence of the choices. When only negative or both negative and positive choices are considered, people choose an improving sequence, consistent with prior research. However, when all the choices are positive, people tend to choose a declining sequence, and choose their more preferred option first.

For more information, contact: Min.Liu@utsa.edu

27. ***Red Cola or Blue Cola: The Effect of Package Color on Food Calorie Judgment***

Ping Dong, The Chinese University of Hong Kong, Hong Kong*

Robert S. Wyer, Jr., The Chinese University of Hong Kong, Hong Kong

Jinghui Qian, The Chinese University of Hong Kong, Hong Kong

Both a field study and a laboratory experiment examined the effects of a package's color (red vs. blue) on estimates of caloric content and purchase behavior. Participants are less inclined to purchase a product in a red package when they are hot (e.g., after exercising) than when they are not. On the other hand they are more inclined to estimate that a

product contains more calories when it is in a red package than when it is in a blue package, particularly if they are high in health-consciousness.

For more information, contact: pingdong@baf.msmail.cuhk.edu.hk

28. ***Basking in Reflected Glory (BIRG): An Investigation of Sports Consumers' Attitude Formation Process***

Rajdeep Chakraborti, IBS, Hyderabad, India*

Pratyush Banerjee, IUD, India

This paper tries to identify the reasons behind the sports fan's basking in reflected glory (BIRG) and cutting off reflected failure (CORF) behaviors. This paper also tries to develop a deeper understanding of the various contextual factors which influence supporters to get involved into BIRG or CORF behaviors by conducting a longitudinal exploration using grounded theory with Indian cricket fans and to investigate how these factors influence such attitude formation. An attempt is also made to understand the impact of such associations on the overall psychological health of the fans by measuring psychological factors such as stress, depression, life satisfaction and happiness of the fans.

For more information, contact: pikluchakra@gmail.com

29. ***Goodwill or Greed? The Role of Signals and Reciprocity in Corporate Societal Marketing Initiatives***

Ryan Langan, University of South Florida, USA*

This research explores the role of consumer skepticism in the formation of motive attributions for corporate societal marketing initiatives. A model is proposed to account for the signals consumers use to ascribe motives towards CSM initiatives. To test the model we propose two experiments. In the first experiment, we incorporate signaling theory and PKM to investigate the influence of signals common to most CSM advertisements; namely brand reputation, donation type and perceived fit on consumer skepticism and motive attributions. In the second longitudinal study, we draw on Indirect Reciprocity theory to test the influence of motive attributions in time period one on consumer skepticism in time period two.

For more information, contact: langan@mail.usf.edu

30. ***Effects of Spatial Construal on Retail Price Perception***

Tarique Hossain, California State Polytechnic University, USA*

Jae Min Jung, California State Polytechnic University, USA*

Using construal level theory (CLT), we posit that the level of construal affects how consumers evaluate a pricing format (odd-ending or rounded figures). Results from two experiments conducted show that when low level of construal is activated with a spatially near stimulus, subjects more often used precise, non-round numbers to represent perceived selling price. Conversely, under a high level construal triggered by a spatially far stimulus, subjects evaluated price using round numbers more often than precise numbers. We also propose an additional hypothesis to test the effect of construal level on perceived price fairness in a forthcoming study.

For more information, contact: tmhossain@csupomona.edu

31. ***In the Aftermath of an Earthquake: The Interactive Role of Self-construal and Victim Group-Status in Charitable Behavior***

Alixandra Barasch, University of Pennsylvania, USA*

Rod Duclos, HKUST, Hong Kong*

Building on self-construal theory, this research examines the conditions under which interdependent individuals are more or less charitable than independent individuals. Doing so, we identify the moderating influence of victim group-status (in-group vs. out-group) on likelihood to donate time or money to earthquake victims from different parts of the world. Furthermore, we investigate the role of lay beliefs versus affect, and find that donation decisions are mediated by the extent to which individuals believe helping others promotes happiness.

For more information, contact: alix.barasch@gmail.com

32. ***My Pick is Better than Yours: Exploring the Overestimation Phenomena in Skill-based Gaming Situations***

Dae Hee Kwak, University of Michigan, USA*

This study examines the effects of skill-relevant factors (i.e., knowledge perception, task enjoyment) and individual factor (i.e. identification) on inflated winning expectancy in a sports gambling context (NCAA men's basketball championship tournament). Participants (N = 193) made their predictions for the 2011 March Madness tournament and actual scores were calculated based on the number of correct predictions. The results showed that fan identification, perceived basketball knowledge, and task enjoyment were all significant in predicting winning confidence. Interestingly, however, none of the variables were significant in predicting participants' actual performance, suggesting that winning confidence is biased and erroneous beliefs leading to greater risk-taking.

For more information, contact: Kwakd@umich.edu

33. ***Moral Budgeting: Domain-Specific Self-Regulation through Compensatory Consumption***

Daniele Mathras, Arizona State University, USA*

Naomi Mandel, Arizona State University, USA

Andrea Morales, Arizona State University, USA

In this research, we conceptualize and test a theory of moral budgeting, in which people act as if they are maintaining mental moral accounts and tracking debits and credits to those accounts. We hypothesize that after a threat to one's moral identity, one will take steps to restore homeostasis by making a moral consumption choice. More specifically, we examine whether choosing a compensation option in the threatened domain restores more moral credits than choosing a non-domain-specific, indirect compensation option.

For more information, contact: dmathras@asu.edu

34. ***The Influence of Materialism, Overall Life Goals and Intrinsic Play Motivation on Children's Reason for Playing***

Dieneke Van de Sompel, Ghent University, Belgium*

Mario Pandelaere, Ghent University, Belgium

Iris Vermeir, Ghent University, Belgium

Play behavior can be seen as a goal-directed consumer behavior children put forth. The current paper finds that materialism, overall life goals and intrinsic play motivation influence children's reasons to play. Study 1 and 2 show that materialism accounts for differences in reasons to play (process or outcome orientation). Materialism also

influences how children perceive several play characteristics (such as the intention to play in the future). Study 3 shows that outcome and process orientation are shaped by different life goals (extrinsic versus intrinsic) and are each formed by intrinsic play motivation.

For more information, contact: dieneke.vandesompeel@hogent.be

35. ***"To Imagine is to Feel!": The Role of Mental Simulation on the Effectiveness of Charity Appeals***

Diogo Hildebrand, City University of New York, USA*

Sankar Sen, City University of New York, USA

This paper proposes that the effectiveness of positive and negative emotional appeals on charity advertisements is dependent on the perspective people are taking when simulating the feelings and sensations of those portrayed in the advertisement. In two studies we demonstrate that positive emotional appeals are more effective when people are imagining themselves in the situation, but negative emotional appeal is more effective when people are imagining how the victims are feeling. Our findings challenge prior beliefs that negative emotional appeals are necessarily more compelling than positive emotional appeals and discuss contributions for both theory and practice in social advertisements.

For more information, contact: diogo.hildebrand@baruch.cuny.edu

36. ***The Influence of Information Sidedness on the Anticipation of Negative Reactions: The Role of Attitudinal Ambivalence***

Ineke Uyttersprot, Ghent University, Belgium*

Iris Vermeir, Ghent University, Belgium

Maggie Geuens, Ghent University, Belgium

One- and two-sided messages are claimed to be equally effective in enhancing attitude favorability, when receivers have a positive prior attitude and are already aware of the negative features conveyed in the two-sided message. We argue that one- and two-sided messages generate diverging effects on another important attitudinal characteristic, the anticipation of negative reactions, depending on the ambivalence level of the initial attitude. When ambivalence is low/high, two-sided information increases/decreases the number of anticipated negative reactions compared to one-sided information. Results also show that, regardless of attitude favorability, more anticipated negative reactions decrease the attitude-intention correspondence.

For more information, contact: ineke.uyttersprot@hogent.be

37. ***Seen from the Mind's Eye: A Competitive Approach to Consumer Based Brand Equity***

James Mead, University of Kentucky, USA*

Josh Blagg, University of Kentucky, USA*

Jonathan Hasford, University of Kentucky, USA

Consumer-based brand equity is traditionally measured with Likert scale attitude measures toward various brand attributes. In this research, a competitive methodology for measuring brand equity is proposed. This approach is supported conceptually by research in memory and information processing. Furthermore, one field study empirically supports the predictive ability of the competitive measure of consumer-based brand equity beyond traditional metrics. These findings demonstrate the importance of measuring consumer-based brand equity with a competitive metric that

more closely mirrors actual consumer decision making.

For more information, contact: james.mead@uky.edu

38. ***When Do (and Don't) Normative Appeals: Best Influence Consumer Conservation Behaviors?***

Bonnie Simpson, University of Calgary, Canada*

Katherine White, University of British Columbia, Canada

This research explores how to encourage consumers to engage in a relatively unfamiliar conservation behavior, grasscycling. The effectiveness of different types of appeals, including self-benefit, descriptive norm, and injunctive norm, depends on the level of self activated. Across one laboratory study and one field study examining real conservation activities the effectiveness of the appeal depended on the activation of either an individual or group level mindset. In particular, when the individual level of self was activated injunctive appeals were least effective, whereas when a collective level of self was activated, benefit appeals were least effective.

For more information, contact: whitk@ucalgary.ca

39. ***The Effects of Perceived Product-Association Incongruity on Consumption Experiences***

Sarah Clemente, Brock University, Canada*

Eric Dolansky, Brock University, Canada

Antonia Mantonakis, Brock University, Canada*

Katherine White, University of British Columbia, Canada

The level of congruity between an object and its associated attribute is determined by the degree of match or mismatch. Product evaluations are positively influenced when there is moderate incongruity between a product and its association; this finding has been termed the moderate schema incongruity effect (MSIE; Mandler 1982). We investigate the influence of extrinsic cue-focal product incongruity on consumers' product evaluations. For example, will participants perceive a product to taste better when its sponsor or co-brand (e.g., wine paired with an athlete or a consumer product good) is a good, moderate, or bad match?

For more information, contact: sc09oi@brocku.ca

40. ***For Unsuspicious Eyes Only! The Detrimental Effects of a General Suspicious Mindset on Persuasion Knowledge Activation***

Tina Tessitore, Ghent University, Belgium*

Maggie Geuens, Ghent University, Belgium

This study investigates the effect of three levels of general suspicion (no vs. high vs. resolved suspicion) on persuasion knowledge activation. Persuasion knowledge activation is measured in the context of product placement. Results show that high suspicion leads to lower persuasion knowledge activation than no suspicion. This effect is explained by the fact that highly suspicious people narrow down their attention on aspects which made them suspicious, having no attention left to notice unrelated manipulative intent and to activate persuasion knowledge. Further, persuasion knowledge mediates the effect of suspicion on product placement recognition and brand recall.

For more information, contact: tina.tessitore@ugent.be

41. ***When Analogical Ad Backfires: The Effect of Expertise on the Persuasiveness of an Analogy***

Xingbo Li, University of Washington, USA*

Research has shown that experts are better persuaded by analogical ads (Roehm and Sternthal 2001). I argue that analogy is a continuum that varies in the degree of abstractness and expertise may not always have an advantage. The current research shows that expertise has a disadvantage when it comes to understanding highly abstract analogy. It is because experts' accentuated accessibility of subordinate level of knowledge hinders the analogical reasoning that takes place in a basic level (vs. subordinate level). Reducing the accessibility of subordinate level of knowledge eliminates the disadvantage of expertise. The effects are demonstrated across two studies.

For more information, contact: xingbo@uw.edu

42. ***Power and Patience: Feeling of Powerfulness as a Moderator of Intertemporal Preferences***

Christine Kang, University of Michigan, USA*

Carolyn Yoon, University of Michigan, USA

This research extends literature on power and information processing to delineate the effect of power on intertemporal preferences of consumer choices. Across two studies, we find that powerful individuals convey a greater degree of impatience through increased action-oriented behaviors. When primed with power, individuals show greater desire to receive the product early and more reluctant to delay the shipment of the product. Moreover, we investigate the interplay between power and the mindset abstraction to suggest that it is the fit between the state of power and the mindset that motivates individuals to become more patient.

For more information, contact: christine.s.kang@gmail.com

43. ***The Side Effects of Recession: Exploring the Impact of Negative Economic News on Consumers' Responses to Advertising***

Cuauhtemoc Luna-Nevarez, New Mexico State University, USA*

Jennifer Zarzosa, New Mexico State University, USA*

The economic recession has radically affected the lifestyle and purchasing patterns of consumers. The negative sentiment generated by the recession and the exacerbated coverage of its effects on media news, is affecting the attitudes of consumers toward firms' advertising efforts. Drawing upon the negativity effect and self-regulatory focus theory, we developed an experiment to test the impact of economic news and self-regulatory focus on consumer attitudes toward advertisements. Two variables were measured: ad likeability and ad persuasion. Preliminary evidence revealed a significant two-way interaction between economic news and self-regulatory focus but no main effects of economic news on ad evaluations.

For more information, contact: cluna@nmsu.edu

44. ***Menstrual Cycle Effects on Gift-Giving Proclivities***

Eric Stenstrom, Concordia University, Canada*

Gad Saad, Concordia University, Canada

Using a 35-day panel study, we investigate if women's gift-giving propensity is influenced by the menstrual cycle in a sample of 35 normally-cycling women. In a shopping scenario, we asked women to choose between spending their

money on buying a gift for a loved one versus spending money on themselves. Our results indicate that women allocated significantly more money towards gift-giving during the luteal phase than during the fertile phase. Given that gift-giving is often used to build and maintain social ties, our results suggest that women's affiliative goals fluctuate across the menstrual cycle.

For more information, contact: e_stenst@jmsb.concordia.ca

45. ***"Yes I Take Rejection Personally": The Impact of Brand and Consumer Rejection on Brand Evaluations***

Fang Wan, University of Manitoba, Canada*

Namita Bhatnagar, University of Manitoba, Canada

Daniel Sun, University of Manitoba, Canada

Niche branding is about targeting a particular consumer segment whose identity and values are tied to the offerings of a focal brand. However, the ultimate challenge of niche brands such as Apple, Harley, or Abercrombie and Fitch is the growth beyond core consumer segments. Yet, little research has been done to address whether consumers who fall outside the target segment of niche brands may aspire to these brands and whether the exclusive brand positioning creates a sense of rejection. This research sets out to study two types of brand rejection to address this focal issue: rejection by the executive management of the brand and rejection by peer consumers.

For more information, contact: wanf@ms.umanitoba.ca

46. ***Conspicuous Consumption Through the Eyes of a Low Materialist***

Karolien Driesmans, K.U. Leuven, Belgium*

Inge Lens, K.U. Leuven, Belgium

Luk Warlop, K.U. Leuven, Belgium

Our research adds to existing literature on the use of luxury products as a means to signal status. Our results indicate that low materialists react negatively to an interaction partner who engages in conspicuous consumption. We propose that this is caused by low materialists' assumption that people often use products as an easy way to attain status instead of being truly knowledgeable and successful. We expected and find a decrease in attention to luxury products for low materialists who feel successful, presumably because they do not want to be perceived (incorrectly) as deceptive and less competent/successful than they really are.

For more information, contact: karolien.driesmans@econ.kuleuven.be

47. ***The Impact of Feedback from Acquaintances, Friends & Experts on the Repurchase Intentions of Sustainable Products***

Mark Mulder, Washington State University, USA*

Jeff Radighieri, University of Houston-Victoria, USA

Jeff Joireman, Washington State University, USA

Given their increasing presence in the marketplace, understanding factors that influence consumers' willingness to purchase (and repurchase) sustainable products is important. The present research addresses how consumers' willingness to repurchase sustainable products is affected by the valence of others' feedback about the product (positive, negative) and the source of that feedback (friend, acquaintance, expert). Our results show that source effects exist, though contrary to previous research, experts have a much stronger effect than friends/acquaintances, but only when the

feedback is negative; when feedback was positive, the three sources did not differ in their impact on repurchase intentions.

For more information, contact: mulder@wsu.edu

48. ***Product Rating: How Rating Certainty Affects Post-Rating WOM Likelihood***

Yu-Jen Chen, University of Maryland, USA*

David Godes, University of Maryland, USA

We propose a new marketing construct- rating certainty which describes consumers' certainty belief about the rating score they assign in a product rating task. We make conceptual, measurement, and managerial contributions to this rating certainty construct. Conceptually, we define rating certainty and differentiate it from attitude certainty. From a measurement perspective, we develop and validate the measure of rating certainty. Managerially speaking, we first show how rating certainty could be affected by rating scale design. Next, we demonstrate how rating certainty may increase or decrease post-rating WOM behavior.

(*The first author is a PhD student.)

For more information, contact: ychen@rhsmith.umd.edu

49. ***Behavior Change: Why Action Advertising Works Harder Than Passive Advertising***

Adam Ferrier, Naked Communications, Australia*

Brooke Ward, Naked Communications, Australia*

Josephine Palermo, Deakin University, Australia

Advertising that involves the consumer by requiring them to perform an action, rather than constructing them as passive recipients of a message, represents a new approach to communications. Based on the theory of experiential learning (Kolb, 1984), a field experiment to investigate the hypothesised effectiveness of consumer involvement in brand communications on behavior change was conducted. Participants (N = 181) were exposed to one of four conditions: passive (low-involvement) /rational messaging (Condition 1); passive (low-involvement) / emotional messaging (Condition 2); active (high-involvement) / neutral messaging (Condition 3); and active (low-involvement) / neutral messaging (Condition 4). Results were in the predicted direction, providing support for further research.

For more information, contact: brooke@nakedcomms.com.au

50. ***Don't Put All Your Green Eggs in One Basket: Examining Self-monitoring and Environmentally Friendly Sub-branding Strategy***

Jayoung Koo, University of Minnesota, USA*

Barbara Loken, University of Minnesota, USA

Although marketers are increasingly developing strategies to promote environmentally-friendly images for their brands, surprisingly little is known about green sub-branding strategies. In two studies, we examine two sub-branding strategies, and find that when green products are concentrated within one sub-brand (versus dispersed across several sub-brands), people who are low in self-monitoring are more cautious than people who are high self-monitors about making inferences that the overall parent brand is environmentally friendly. Results also vary by the degree to which the sub-brands are similar or dissimilar from one another.

For more information, contact: kooxx051@umn.edu

51. ***A Sociability Model in Spectator Sports***

Li-Shiue Gau, Asia University, Taiwan*

Jong-Chae Kim, University of Tennessee at Martin, USA

The current study attempted to develop a sociability model explaining that fans with positive attitudes toward spectator sports might cultivate team identification, form social capital in a fans community, and enjoy a sense of belonging. A survey questionnaire was used, including four measures of spectator sport attitudes, team identification, social capital and a sense of belonging. With 99 respondents, analyses of SEM showed that the model fit was acceptable, all path coefficients were significant and the model accounted 92% of the variability in sense of belonging, indicating that the model explained well the phenomenon of sociability fulfillment in spectator sports.

For more information, contact: lishiuegau@gmail.com

52. ***Preventing Unintended Unhealthiness: The Mediating Role of Regulatory Focus on Goal Progress and Intention to Indulge***

Anjala Krishen, University of Nevada, Las Vegas, USA*

Myla Bui, Loyola Marymount University, USA

The purpose of this research is to examine the effects of ideal weight goal progress and regulatory focus on subsequent health-related decisions in hopes of alleviating obesity escalations. Between-subjects experiments were conducted to test the effects of perceived goal progress, regulatory focus and food type on health-related decisions across two studies. Key findings indicate that individuals exhibiting prevention focused orientations are more likely to make healthier subsequent choices when placed in a non-indulgent food scenario than an indulgent food choice scenario initially. Regulatory focus also plays a role in mediating the effect of perceived goal progress on health behavior.

For more information, contact: anjala.krishen@unlv.edu

53. ***The Advertising Impact of Video Embedded E-Mail-Advertising: An Experimental Study***

Stefan Hampel, University of Bayreuth, Germany*

While e-mail is the fastest growing form of communication in history, due to information overload a decreasing amount of e-mails is noticed by consumers. As a general problem, advertisers look for techniques how to reach and impress their customers. As solution for this research gap we show in an experimental design a significant increase for key constructs of consumer behavior by a fetching e-mail design in terms of embedding a video in the e-mail-body.

For more information, contact: stefan.hampel@uni-bayreuth.de

54. ***The Effect of Background Music Elements on Recall: A Working Memory Perspective***

Esther Kang, University at Buffalo - SUNY, USA*

Arun Lakshmanan, University at Buffalo - SUNY, USA*

Prior research on the impact of music upon verbal learning has been mixed with some findings indicating that music leads to better learning while others suggest that music reduces learning. This research aims to clarify the effect of music on ad recall by explicating the role of different elements of music in affecting learning and memory. To this end

we recruit working memory theory from cognitive psychology to make our predictions. Preliminary findings suggest that the use of vocal music in advertisements may lead to reduced recall but only under specific conditions. Our findings are discussed in light of working memory structure and its role in short-term learning.

For more information, contact: estherka@buffalo.edu

55. ***Brand Name-Logo Congruence: Phonetic Symbolism and Children's Preference***

Stacey Baxter, University of Newcastle, Australia

Tina M. Lowrey, University of Texas at San Antonio, USA

Kristin Trask, University of Texas at San Antonio, USA*

Phonetic symbolism can provide marketers with a means to create meaningful brand elements. This working paper presents the initial results of an experiment designed to investigate children's preference for phonetically manipulated words and images. Despite children's awareness of phonemes being less developed than adults, consistent sound-stimuli relationships were identified—children prefer words as brand names, and images as brand logos, when the attributes connoted by the vowel sound, or image shape, are congruent with product attributes. Results are of interest to those who are looking to select a new brand name and provide a unique contribution to existing marketing literature.

For more information, contact: kristin.trask@utsa.edu

56. ***Does Feeling Happy Make Colors Look Brighter?***

Heeryung Kim, Indiana University, USA*

Shanker Krishnan, Indiana University, USA

In many contexts consumers perceive stimuli (e.g., products, ads) while under a specific affect state. This research investigates the influence of affect on color perceptions and in turn product evaluation. We manipulate affect state and subsequently ask participants to evaluate advertisements. The results of two studies show that people in a happy affect state perceive advertising stimuli to be brighter. For product categories where brightness is an important cue, product evaluations are in turn positively influenced by the brightness perceptions.

For more information, contact: skrishna@indiana.edu

57. ***Implicit Theories of Personality and Perceptions of Corporate Behavior***

Alexis Green, Skidmore College, USA

Mark Staton, Skidmore College, USA*

Christine Page, Skidmore College, USA

According to implicit theories of personality, traits and behavior are believed to be either fixed across time and situation (entity theorists), or malleable and circumstantial (incremental theorists). The present and future studies seek to elaborate upon the extensive research by moving implicit theory application into the realm of reactions to and perceptions of corporate behavior. In this first study, we found that, consistent with former findings, the opinions of entity theorists were more extreme than those of incremental theorists.

For more information, contact: mstaton@skidmore.edu

58. ***How do Consumer Make their Purchase Decisions between Genuine and Counterfeit Products?***

Tatiana Astray, University of Guelph, Canada*
Towhidul Islam, University of Guelph, Canada
Tanya Mark, University of Guelph, Canada
Vinay Kanetkar, University of Guelph, Canada

This study sought to provide a theory driven model to explain how consumers make purchasing decisions between genuine products and products they know are counterfeit. Goal-driven theory, morality, and prospect theory were included as purchase decision considerations. To measure their influence while accounting for product attributes, purchasing decisions were assessed in choice sets as provided by a discrete choice experiment. Results found support for using goal-driven theory and prospect theory to explain consumer purchasing decisions between genuine and counterfeit products. Morality was not a significant factor in the findings. Theoretical contributions and managerial implications are discussed.

For more information, contact: tastray@uoguelph.ca

59. ***Squares are Rugged, Circles are Sophisticated and Sincerity is Lighter than Competence: The Effects of Visual Design Elements on Brand Personality Perceptions***

Michael McCarthy, Miami University, USA*

This study examined how the characteristics of basic visual design elements (e.g, shapes and shading) affected the selection of personality traits associated with those elements. This line of inquiry is analogous to research in phonetic symbolism that considers how the characteristics of basic elements of sounds made in speaking brand names influences perceptions of the brand. The findings indicate that basic visual design elements are strongly and consistently associated with certain brand personality traits and dimensions. The implications for these findings for branding in general and logo development in particular are discussed.

For more information, contact: mccartms@muohio.edu

60. ***Accuracy versus Feelings: The Influence Motivated Reasoning on the Valuation of Multiple Gains and Losses***

Dorothea Schaffner, Lucerne University of Applied Sciences and Arts, Switzerland*

Pragya Mathur, City University of New York, USA

This research systematically investigated the impact of two types of motivations (the motivation to value by accuracy and the motivation to value by feelings) on preferences for segregated versus integrated gains and losses. In a study in which we examine the effects of integrated or segregated losses and gains in a stock market context, we observe that valuation with feelings led to a preference for segregated gains and integrated losses, while a valuation with accuracy goals left respondents indifferent. Implications of our findings are discussed.

For more information, contact: dorothea.schaffner@hslu.ch

5.1 Symposium: Back to the Future: New Directions in Temporal Framing for Consumer Judgments

Room: Four Seasons Ballroom 1

Chair: Steven Chan, New York University, USA

Sam Maglio, New York University, USA

The Impact of Price on Preference Consistency Over Time

Kelly (Kiyeon) Lee, University of Toronto, Canada*

Min Zhao, University of Toronto, Canada

It is a well-known fact that consumers have inconsistent preferences over time when their decision involves desirability/feasibility trade-offs. Specifically, when the event is in the distant future, people put greater weight on desirability and prefer options with high desirability. However, when the event becomes temporally closer, their focus shifts away from desirability toward feasibility, and they prefer options with high feasibility (Trope & Liberman, 2003). As a result, consumers may regret their choices, have lower customer satisfaction, or fail to carry through with their choices at the time of actual consumption (Soman, 2004). How can consumers maintain a preference for the high-desirability option when the event is near and overcome their preference inconsistency?

Prior research has demonstrated that certain external aids can help people overcome their inconsistency such as distracting attention from the immediate temptation by removing it from sight (Mischel & Ebbesen, 1970) and using outcome simulation by focusing on the outcome of their product choice (Zhao, Hoeffler, & Zauberman, 2007). In our research, drawing on the signaling literature suggesting that people associate price with quality (Gabor & Granger, 1966; McConnell, 1968), we propose that simply highlighting the common price for product options without having any external aid leads to a change in their near-future preference and corrects preference inconsistency over time. Furthermore, we examine the underlying mechanism for this effect.

Experiment 1 employed a 2 (time: near future vs. distant future) x 2 (price: control vs. price) between-subjects design based on two desks—a higher-feasibility option and a higher-desirability option. Consistent with prior literature, when no price was provided, participants had a greater preference for the higher-desirability option for the distant future than for the near future. However, when common price information was included, participants' preference for the higher-quality desk increased in the near-future condition and did not change in the distant-future condition. Our mediation analyses show that this effect is due to people's increased quality importance after seeing the price information for the near-future decision. Price does not change participants' preferences and perceived quality importance for distant-future decisions because consumers naturally tend to focus on the desirability aspect of the product.

To address the concern that the effect of price is related with a particular price provided in Experiment 1, Experiment 2 was designed such that participants were sensitized to price without actually receiving the price information of the focal product (i.e., restaurant). We used a 2 (time: near future vs. distant future) x 2 (price: control vs. price-sensitized) between-subjects design. Participants in the price-sensitized conditions completed two surveys—purchase history (e.g., listing their purchase items and prices) and price surveys (e.g., indicating their WTPs for three products). Participants in the control conditions completed a non-price-related filler task with similar length. We expect that those highly price-related tasks would sensitize participants to price and cause them to process the subsequent restaurant information in a way that was consistent with the results of the previous experiment. The results of Experiment 2 confirmed our expectation.

An alternative account for our findings is that the effect of common price might not be driven by price information, but by the inclusion of price as a common feature since any common product feature would make the options look more similar and thereby dilute individuals' tendency to prefer one option over the other (Houston, Sherman, & Baker, 1989). To rule out this dilution account, in Experiment 3, we utilized a 2 (time: near future vs. distant future) x 3 (common feature: control vs. price vs. video capabilities) between-subjects design based on two digital cameras. In the control conditions, we replicated inconsistent preference over time. When video capabilities were introduced as the common feature, we still observed inconsistent preference. However, this inconsistency was corrected in the price conditions. Mediation analyses further showed that the shift of relative quality importance mediated the effect of time and common features on preference.

Experiment 4 was designed to examine whether manipulating the lay belief in a price-quality association moderates the effects found in previous experiments. The experiment used a 2 (time: near future vs. distant future) x 3 (price-quality association: control vs. positive association vs. no association) between-subjects design based on the two desks used in Experiment 1. When the lay belief in the positive price-quality association was supported, we replicated preference consistency over time when common price information was presented. However, when this lay belief was disconfirmed such that participants perceived no price-quality association, we found no change of consumers' preference even when they saw the price information.

Taken together, we showed that including price information corrects preference inconsistency over time across different product domains (e.g., desk, digital camera, and restaurant) and across different level of price exposure. Further, we ruled out the dilution account, and identified increased perception of quality importance as the underlying mechanism. Lastly, we show that once the price-quality this belief is disconfirmed, the effect of price on near-future preference and thus preference consistency over time is attenuated. Our work adds to the research on decision over time by demonstrating that without the external aid of complex strategies, simply providing a common price for product options or sensitizing people to price helps them make consistent decisions. In addition, extending CLT, it demonstrates that price can also be a desirability-related aspect when people associate product quality with price.

For more information, contact: kiyeon.lee07@rotman.utoronto.ca

A Future Fly on a Future Wall: Temporal Framing Moderates Embodiment Effects

Sam Maglio, New York University, USA*

Yaacov Trope, New York University, USA

Cognitive processing does not always operate independent of the rest of the body. Instead, from the perspective of theories on grounded cognition and embodiment, mental representations take root in sensorimotor states (Barsalou, 2008). Here, we suggest that the effects arising from sensorimotor cues require that the individual be in a frame of mind that allows for consideration of such concrete, physical information.

Evidence in support of the influence of bodily state in judgment has taken many forms. For example, geographical space looks longer to people encumbered by a heavy backpack relative to unencumbered people (Proffitt et al., 2003). Additionally, metaphor provides a link between the physical and the representational. Thus, the experience of physical warmth activates the concept of interpersonal warmth (Williams & Bargh, 2008) and participants holding a heavy clipboard rate various issues as more conceptually weighty (i.e., important) relative to those holding a light clipboard (Ackerman, Nocera, & Bargh, 2010; Jostmann, Lakens, & Schubert, 2009).

However, if people do not incorporate physical, contextualized information into their general thinking, might body-based effects disappear? Construal level theory (Trope & Liberman, 2010) provides a framework to address this question, differentiating between concrete and abstract cognitive processing. Construal of the same behavior can incorporate either contextualized details or its broader significance. While concrete, low-level thought attunes people to the physicality of their surroundings, this information is absent from abstract, high-level thought. Importantly, level of construal varies with psychological distance, or removal from immediate experience: Targets characterized by such distance are represented abstractly, whereas closer targets are represented concretely (Liberman, Trope, & Stephan, 2007). The theory identifies four types of psychological distance: temporal, geographical, social, and probabilistic. Here, we consider specifically the relevance of temporal distance, or evaluation of targets for the near or distant future.

Past research has suggested that temporal framing can diminish the influence of one's current environmental context in making judgments. For example, participants asked to give their opinion about a policy aligned their attitude with that of a one-time, incidental discussion partner to a greater extent for a policy framed as temporally close (to be implemented in the near versus distant future, Ledgerwood, Trope, & Chaiken, 2010). Because low-level construal – the cognitive framework characterizing judgments for the present moment – prioritizes concrete, immediate experience, we hypothesize that people led to think concretely (e.g., making judgments for the near future) will prove particularly responsive to contextual bodily cues, whereas those thinking at a higher, abstract level will not.

Study 1 first considers the role of temporal framing in affecting metaphorical priming using the aforementioned clipboard paradigm (Ackerman et al., 2010). Specifically, participants provided importance ratings related to an upcoming meeting of a university committee while holding either a heavy or light clipboard. To manipulate temporal distance, the policy under consideration at the meeting was said to go into effect either immediately or in one year. When the policy was to be implemented soon, participants in the heavy clipboard condition indicated that issues regarding the meeting were more important than did those holding a lighter clipboard. This difference disappeared with a temporally distal implementation date.

Next, we targeted in Study 2 the proposed mechanism relating temporal framing to disembodiment: level of mental construal. To manipulate construal, participants first performed a manipulation verified by previous research to elicit either high- or low-level thought: those in the former condition considered why they would perform an activity, and those in the latter considered how they would perform an activity (see Freitas et al., 2004). Next, participants either wore or did not wear a heavy backpack while estimating the length of the hallway (Proffitt et al., 2003). For those in the low-level construal condition, participants wearing a backpack indicated that they saw the hallway as longer than those not wearing a backpack. No such difference obtained among those in the high-level condition.

In both studies, we replicate the established embodiment effect for participants thinking for the near future (at a concrete level) but not for the distant future (at an abstract level). Given the ubiquity of embodiment effects recently documented in the psychological literature, this work makes the important contribution of identifying a boundary condition on when they occur (see also Lee & Schwarz, 2010). Importantly, incidental proprioceptive feedback can at times prove advantageous, highlighting the value of concrete thinking (e.g., Damasio, 1994). Nevertheless, if something as incidental as perceived deviation from the normal temperature can shift belief in global warming and donations to support its resolution (Li, Johnson, & Zaval, 2011), the policy implications of this research in remedying such biases remain vast and valuable.

Thus, despite the well-documented tendency of seemingly irrelevant factors to sway consumer thoughts, judgments, and behaviors, certain conditions ensure that the incidental remains exactly that. The unique human capacity to plan for the

future – and, thereby, to construe the environment abstractly – may endow us with a certain degree of consistency, whereby we manifest resilience to the ebb and flow of contextual variables that comprise everyday experience.

For more information, contact: sam.maglio@nyu.edu

Feels Far or Near? How Subjective Perception of When One Last Consumed Influences Satiation

Jeff Galak, Carnegie Mellon University, USA

Joseph P. Redden, University of Minnesota, USA

Yang Yang, Carnegie Mellon University, USA*

Ellie J. Kyung, Dartmouth College, USA

Repeated consumption usually leads to a decrease in enjoyment and in motivation to consume, a phenomenon known as "satiation" (Coombs and Avrunin 1977). This process is ubiquitous and manifests in almost every consumption domain from food (Rolls, Rolls, and Rowe 1983) to massage (Nelson and Meyvis 2008). Recent work has increasingly shown that, satiation results from psychological processes (McSweeney and Swindell 1999) as well as from physiological signals (O'Donohue and Geer 1985). In particular, satiation can be constructed based on whether people recall their past consumption (Higgs 2002, 2008; Rozin et al. 1998), the ease of retrieval of past consumption, and the subjective sense of how much they have consumed (Redden and Galak).

In the current research, we explore another critical antecedent to satiation – the subjective perception of when one last consumed. Across three experiments, holding constant the objective time of when a particular stimulus was consumed, we find that people feel more satiated and consume less when they merely have the subjective sense of having consumed more recently.

In Experiment 1, participants were randomly assigned to three conditions and answered questions regarding their eating behavior. Participants in the *Long Ago* and *Not Long Ago* conditions were asked to indicate when they last had anything to eat by drawing an arrow on a scale. In order to manipulate the subjective feeling of when participants last ate, the scale anchors differed by condition. For the *Long Ago* condition, the right end of the scale was anchored with "Now" and the left side was anchored with "One Day Ago". For the *Not Long Ago* condition, the right end of the scale was anchored with "Now" and the left side was anchored with "One Month Ago". In both of these conditions, participants were asked to draw the arrow starting from the right side of the scale and ending in the position that reflects when they last ate. Participants in the *Control* condition were not presented with the scale. We found a significant effect of this manipulation on desire to eat and on hunger. Specifically, participants in the *Not Long Ago* condition wanted to eat significantly less and felt less hungry than those in the *Long Ago* condition and *Control* condition.

In Experiment 2, we replicate the findings from Experiment 1, demonstrate the effect for a non-food stimulus (music), and, most importantly, measure actual enjoyment following the manipulation. The experiment consisted of two parts, both administered in a single one-hour lab session. During the first part of the experiment, participants listened to a 30-second clip of a favorite song 12 times in a row. Then, 35 minutes after the completion of their listening experience, participants in the *Long Ago (Not Long Ago)* condition indicated when they last heard their favorite song on a 101-unmarked slider scale anchored with "1 Hour Ago" ("1 Week Ago") and "Now". As predicted, and consistent with Experiment 1, we found participants felt more satiated and enjoyed their favorite song substantially less when they felt like the first part of the experiment occurred more recently (*Not Long Ago* condition) as compared to either the *Control* or the *Long Ago* conditions.

Finally, to examine whether changing people's subjective perception of when they last ate influences their actual food purchase behavior, we conducted a field experiment with a local branch of the restaurant, Panera Bread (Experiment 3). Customers were intercepted prior to entering the restaurant and were asked to indicate when they last had anything to eat on a scale similar to the one used in Experiment 1. Next, participants were asked to indicate their subjective sense of when they last ate on a 9-point scale anchored with "Feels like it happened a while ago" and "Feels like it happened recently". Participants were then allowed to enter the restaurant and make their purchase decision. Most critically, we obtained itemized register receipts for each participant and were thus able to determine the amount of food purchased (in calories) and, presumably, consumed for each participant. As predicted, the participants in the *Not Long Ago* condition purchased food with lower caloric value than those in the *Long Ago* and *Control* conditions. Importantly, the subjective sense of when participants last ate mediated the relationship between the independent variable and the number of calories consumed.

In sum, the results of three experiments suggest that the subjective perception of when one last consumed has a significant impact on satiation. People consume less and derive less pleasure from consumption when they merely have the subjective sense of having consumed more recently.

For more information, contact: yy1@cmu.edu

That was Then, This is Now: Focalism in Temporal Comparisons

Steven Chan, New York University, USA*

Justin Kruger, New York University, USA

Do people really think things were better "back in the good 'ole days?" Nostalgia as a fond longing for the past would suggest that people often think the past is better than the present. In this research, we demonstrate that this nostalgia is in part a temporal focalism bias driven by polls that ask us to compare the present with the past thereby directing greater focus and weighting of the present relative to the past. Reversing the order in such polls, comparing the past with the present, attenuates (and in some cases reverses) the conclusions of many polls and consumer surveys.

A focalism effect based on comparing time has not been previously demonstrated. Previous research on focalism has demonstrated that comparing X with Y focuses attention on the features of X more than Y which leads to biases in comparative judgments (Houston and Sherman 1995). A focalism effect related to time is critical to surveys, which often ask people to compare the present to a reference point in the past. For example, Gallup polls often ask the public to consider whether there is more or less crime now compared with a year ago. And marketing surveys ask consumers to compare consumption habits across time.

A temporal focalism bias would suggest that the typical question framing, which asks people to compare the present to the past, causes people to focus on conditions of the present more than those of the past. This causes differential weighting of the present and leads to biased judgments. Past research on focalism has highlighted this myopic focus on the focal point in comparative judgments about self and others (Chambers, Windschitl, and Suls 2003). Using the crime question as an example, having a considerable amount of crime today would lead to a judgment that crime today has become worse over time since the state of crime today is weighted more heavily than crime in the past.

In recent years, noted professor and writer Steven Pinker has often presented his idea of the violent-present illusion (2007). Pinker highlights that "contrary to the popular impression that we are living in extraordinarily violent times, rates of violence at all scales have been in decline over the course of history." Pinker presents psychological

explanations based on salience, morality, and motivated reasoning. We contend that the present account of temporal focalism is an additional explanation that contributes to the violent-present illusion as well as other temporal comparisons alike.

Across two studies we demonstrate a temporal focalism effect where differential weight is placed on the present (past) when the present (past) is framed as the focal point of a question. In our first study we demonstrate the temporal focalism effect. Using questions drawn from and inspired by previous Gallup Poll research, we demonstrate significant differences in judgment when the focal point of comparison is reversed. For example, the question “Do you think that a year ago, there was more or less crime than there is now?” yields a significantly lower nostalgic “violent-present illusion” than the original “Do you think there is more or less crime in the U.S. than there was a year ago?”

Public opinion can even flip: For instance, when participants are polled about economic conditions, such as whether it is a better or worse time to find a decent job now as compared to a year ago. In each case, whether for crime or employment, the magnitude of the pervading opinion in people’s consideration will be overweighted for the time frame targeted in the question. So because crime is perpetually common whether in the past or the present, and because US employment has been fleeting in recent years, the direction of temporal comparison will reflect whether more crime (or a worse employment environment) is highlighted for the past or the present.

In a second study, we show that the temporal focalism bias also applies to a personally relevant context. Moreover, we include process evidence for our differential weighting account.

Study 2 showed the effect of comparing judged frequency of both common and rare activities performed currently (this year) versus in the past (a year ago). For example, when asked to compare the past to the present, participants were more likely to indicate that they procrastinated (common) more and watched foreign language films (rare) less frequently a year ago than now. A second group asked to compare in the reverse order, present to past, also showed a similar overestimation for common and underestimation for rare activities, but for the opposite time frame. In addition to the comparative questions, all participants were also asked absolute questions which rated their frequency for each activity both now and a year ago. Path analyses revealed that, as hypothesized, absolute ratings for the focal time frame (present or past) were significantly better predictors for the comparative questions than absolute ratings for the non-focal time frame. This supports the differential weighting account.

So while nostalgia might appear to make the past seem better than now, at least for some matters like crime and the economy, we show with that temporal framing can lead to a temporal focalism bias that can be shifted directly with the opposite framing. Finally, we consider future directions for this work including downstream behavioral effects of a temporal focalism bias: Support or voting for legislation may shift in political contexts; purchasing frequency and habits may change for consumers.

For more information, contact: schan@stern.nyu.edu

5.2 *Individual Papers: Wouldn't it be Lovely: Materialism*

Room: Four Seasons Ballroom 2

Chair: Cara de Boer, K.U. Leuven, Belgium

Owning More can Feel Worse than Owning Less

Haiyang Yang, INSEAD, Singapore*

Ziv Carmon, INSEAD, Singapore

Ravi Dhar, Yale University, USA

The widespread belief that owning more is better than less underlies such impressive statistics as American women on average owning 27 pairs of shoes, and men, 12 pairs (TIME, 2006), and average households having 2.9 TV's—more TV's than people (Nielsen, 2009), and 2.3 cars—more cars than the 1.8 household members who can drive (FHA, 2009). In this research, we challenge that belief, identifying a common condition under which owning more can dampen rather than boost consumption satisfaction.

While the size of *choice sets* is known to affect predicted and decision utility—judgments and choices regarding *a specific option* (e.g., Botti & Iyengar, 2006; Hsee & Leclerc, 1998; Iyengar & Lepper, 2000; Nowlis & Simonson, 1997; Tversky & Shafir, 1992), little is known about how having more items affects experienced utility—satisfaction with owning and consuming *the set*. This research advances the notion of contrasting attributes, a common feature of large consumption sets, which alters comparison standards used to assess satisfaction. Specifically, a set of goods possesses contrasting attributes if each good is better and worse than the others on one or more attributes. When the set of goods is consumed, differences between the attributes (e.g., one pair of shoes has shock-resistant-soles; the other, antibacterial-deodorant-soles) and attribute values (e.g., one TV has a larger screen but inferior sound quality than the other) become salient. This induces an upward shift of the comparison standard for assessing satisfaction, making each good in the set appear deficient on some dimensions. Thus, compared with consuming just one good where a comparison standard naturally present in consumers' mind (e.g., the expected consumption experience) is applied to assess satisfaction, consuming multiple goods can, in fact, be less gratifying.

The extent to which contrasting attributes alter comparison standards is likely to differ across consumers. For example, those with high need-to-evaluate (NTE) chronically make more judgments (Jarvis & Petty, 1996) and hold stronger and more available object-judgment associations (Hermans et al., 2001), suggesting that individuals with higher NTE possess more developed, stable comparison standards for satisfaction assessment. Therefore, consumers with low (high) NTE are likely to be affected more (less) by contrasting attributes.

We tested our propositions in the lab and field. In Study 1, participants were randomly assigned to one of three consumption sets (Good1, Good2, or both). The stimuli were framed pictures with contrasting attributes: Good1 had a good-looking frame with an average-looking photo; Good2 had a good-looking photo in an average-looking frame. As expected, participants in the both-goods condition reported significantly lower satisfaction than those in the single-good conditions. Ironically, participants in pilot studies who were given a choice between the three consumption sets clearly preferred to own both goods.

Study 2a examined whether it is contrasting attributes that dampen consumption satisfaction. Participants were randomly assigned one of three sets (Set_{TV1} , $Set_{TV1\&TV2}$, and $Set_{TV1\&TV3}$) and asked to imagine owning the good(s). $Set_{TV1\&TV2}$ had contrasting attributes—TV1 had both better (e.g., picture-quality) and worse attributes (e.g., sound-quality) than TV2. $Set_{TV1\&TV3}$ did not—TV1 dominated TV3 on all dimensions. Though a pretest established that

participants strongly preferred $\text{Set}_{\text{TV1}\&\text{TV2}}$ over the alternatives in a choice task, those who had this set were significantly less satisfied than those had Set_{TV1} or $\text{Set}_{\text{TV1}\&\text{TV3}}$. That owning $\text{Set}_{\text{TV1}\&\text{TV3}}$ was more gratifying than owning the superior $\text{Set}_{\text{TV1}\&\text{TV2}}$ nicely illustrates the detrimental impact of consuming goods with contrasting attributes, because TV3 was, by design, objectively inferior to TV2. Further, as an indirect measure of the comparison standard used to assess satisfaction, participants were asked rate the extent to which they thought their TV(s) were imperfect. Those with $\text{Set}_{\text{TV1}\&\text{TV2}}$ reported significantly higher imperfection ratings than those with the other two sets. This measure of shifts in comparison standard mediated the effect of consumption-set type on satisfaction.

Study 2b examined whether those who frequently judge objects and experiences they encounter (hence possessing more developed, stable comparison standards), are less affected by contrasting attributes. This study also explored whether contrasting attributes reduce satisfaction with each good in the consumption set. Accordingly, the Set_{TV1} and $\text{Set}_{\text{TV1}\&\text{TV2}}$ conditions were identical to those of Study 2a, and, in a third condition, participants were given $\text{Set}_{\text{TV1}\&\text{TV2}}$ but asked to assess their satisfaction with only TV1. In addition to responding to measures used in Study 2a, participants also completed the Need-to-Evaluate (NTE) scale (Jarvis & Petty, 1996). As expected, those with low NTE were significantly more affected by contrasting attributes—they altered their comparison standard more and reported lower satisfaction than those with high NTE. Further, compared to participants with Set_{TV1} , those who received $\text{Set}_{\text{TV1}\&\text{TV2}}$ reported significantly lower satisfaction with TV1. Finally, the satisfaction differences across the three conditions were mediated by changes in the comparison standard.

Study 3 investigated the negative impact of owning more in the field. Consumers took home either multiple framed pictures (with contrasting attributes) or just one. After owning the product(s) for a few days, they responded to measures similar to those in Study 1. They also completed an open-ended question about the *ideal* framed photo they had in mind, which served as another measure of the changes in the comparison standard. Although a pretest revealed that owning more was clearly preferred in a choice task, participants who owned more were significantly less satisfied. Further, compared to participants who had one good, those who owned multiple goods described a significantly larger number of product attributes on the ideal-product measure, and reported that their goods were significantly more imperfect. These changes in the comparison standard mediated the negative effect of owning more on satisfaction.

Altogether, our findings cast doubt on whether overflowing closets of clothes and shoes, multiple TV's or cars, necessarily provide higher satisfaction than having fewer possessions—contrary to popular belief, owning more can, in fact, be less gratifying. Further, our research contributes to theory by developing the concept of contrasting attributes and explicating their impact on comparison standards used to assess satisfaction. Finally, our research yields transformative advice for consumers—consuming less can help the environment and, in and of itself, be more satisfying.

For more information, contact: haiyang.yang@insead.edu

Exposure to Unattainable Luxury: Effects on Materialistic Goal Pursuit

Katrien Meert, Ghent University, Belgium*

Inge Lens, K.U. Leuven, Belgium

Mario Pandelaere, Ghent University, Belgium

While research has examined consumers' motives to consume luxury products (e.g., Vigneron & Johnson, 2004; Han, Nunes, & Drèze, 2010), it is less clear how exposure to luxury influences their values and goals. Since luxury consumption is related to materialism (Belk & Pollay, 1985), it seems obvious to assume that exposure to luxury

increases materialistic goal pursuit. Given that materialism may have a wide range of adverse effects (e.g., Burroughs & Rindfleisch, 2002), we consider the study of causes of materialism as highly important, especially in a society where ever more people are repeatedly confronted with luxury and images thereof.

One channel through which luxuries are continually promoted is advertising. Not surprisingly, advertising has often been criticized for spreading materialism (e.g., Pollay, 1986; Han & Shavitt, 2005). However, empirical evidence supporting these criticisms is lacking or not unequivocal (e.g., Phillips, 1997; Buijzen & Valkenburg, 2003). We propose that this might be due – at least in part – to the fact that the influence of exposure to images of luxury is much more complex than is usually assumed.

We hypothesize that the effect of exposure to luxury depends on whether an individual may or may not attain the depicted luxuries. Specifically, we propose that the pleasant experience of feeling able to afford luxuries may motivate consumers to strive for even more wealth and financial success (Vohs & Baumeister, 2008), in which case the exposure may indeed increase materialism. However, being exposed to luxuries that one cannot afford may produce an opposite effect. This would be consistent with previous research that has shown that people derive unpleasant feelings from the perception of being unable to achieve a desired outcome. To cope, consumers may devalue the unattainable goal (Baumgartner & Pieters, 2008); this would lead to decreased levels of materialism.

In sum, we suggest that exposure to luxury may produce very different outcomes depending on whether the luxury is attainable for a certain person or not. Contrary to the common assumption that exposure to luxury boosts materialism, we predict that, in the face of unattainable luxury, consumers may engage in self-protection and downplay the importance of luxury and materialistic pursuit.

In Study 1, 131 students were asked to either decorate a classy villa (highly expensive and thus unattainable luxury) versus a mainstream house. Specifically, they received a floor plan of a villa or house and sets of photos with possible interiors per room to choose from (luxurious or common interiors). To increase their involvement with the task, participants were instructed to choose their favorite interior for each room and place the pictures of their choice on the floor plan. Next, materialism (Richins & Dawson, 1992) was measured ($\alpha=.83$).

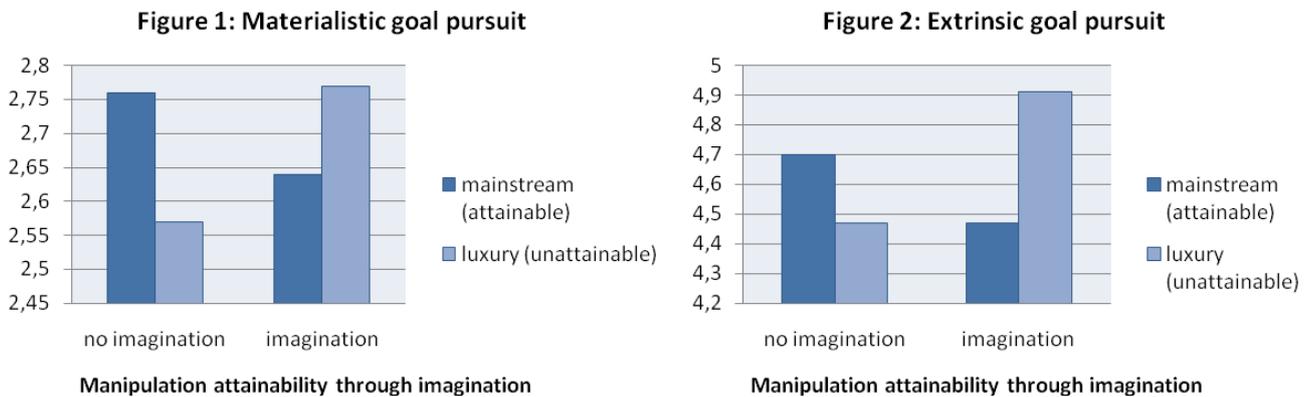
As intended, participants believed that residing the mainstream house would be significantly more attainable within ten years ($M=7.86$), than residing the villa ($M=4.48$) ($t(129)=-9.84, p<.001$). Most importantly, however, the importance of pursuing materialistic values was significantly lower after decorating the villa versus the mainstream house ($M_{villa}=2.83$ vs. $M_{mainstream}=3.05$; $F(1,129)=5.84, p=.017$).

Study 2 involved the same manipulation as Study 1 and additionally tested whether the pursuit of materialistic goals is altered if participants are encouraged (versus not) to imagine themselves owning the home they decorated (the imagination procedure is assumed to render the luxurious villa less unattainable). Such mental simulation tasks are found to be effective (Escalas, 2004). 152 students were randomly assigned to one of four conditions (type of home: expensive villa vs. mainstream house; simulation: imagination vs. no imagination). Subsequently, we measured materialism (Richins & Dawson, 1992, $\alpha=.83$), and extrinsic goal pursuit (Vansteenkiste et al., 2006, $\alpha=.82$), which is related to materialism (Kasser, 2002).

For both dependent variables, the type of home interacted significantly with simulation ($F_{materialism}(1,148)=5.70, p=.018$; $F_{extrinsic}(1,148)=8.77, p=.004$; see Figures 1 and 2). Consistent with Study 1, participants in the no imagination condition were significantly less materialistic after decorating the expensive villa versus the mainstream house ($p=.034$). However, imagining (versus not) owning the villa significantly increased materialistic values ($p=.029$). A similar data pattern was

found for extrinsic goal pursuit.

These findings suggest that consumers try to cope with their inability to own the exposed luxuries by downplaying the importance of being financially successful. After all, participants only indicate to pursue less materialistic and extrinsic goals when being exposed to unattainable luxuries, not when the same luxuries seem less unattainable (through the imagination manipulation).



Study 3 tests this assumption more explicitly. Instead of the decoration manipulation, we now exposed participants to advertisements for luxury products. Rather than manipulating attainability, we now measured perceptions of affordability to assess whether the luxury products were attainable to the participants or not.

37 students were either exposed to six ads for moderately expensive products (to allow for variation in participants' feelings of affordability; e.g., Apple MacBook, HugoBoss clothing) or to no ads (control condition). Next, we measured extrinsic goal pursuit (like in Study 2, $\alpha=.85$) and self-esteem (Rosenberg, 1965, $\alpha=.92$). At the end of the experiment, participants in both conditions judged for each ad whether they would be able to afford the advertised product. An index of perceived affordability ($\alpha=.86$) was calculated¹.

Both for extrinsic goal pursuit ($F(1,33)=9.05, p=.005$), and for self-esteem ($F(1,33)=10.44, p=.003$), we found a significant interaction between exposure and perceived affordability. Advertising exposure increased extrinsic goal pursuit and self-esteem of participants who believed they could afford the promoted luxuries, but decreased it for participants who felt they could not afford them.

Mediation analysis showed that the direct effect of the interaction of exposure and perceived affordability on extrinsic goal pursuit was no longer significant ($p=.43$) when self-esteem was added to the model, while the effect of self-esteem was significant ($p=.007$), attesting to a significant mediation ($z=2.16, p=.03$).

In sum, our findings confirm that exposure to luxury may indeed increase people's materialistic and extrinsic goal pursuit. Quite paradoxically, however, they also show that the opposite result may occur when people are unable to afford the exposed luxuries. Future research may investigate whether exposure to unattainable luxury may also instigate more non-materialistic behavior (e.g., higher donations for good causes).

¹ Affordability was measured at the end of the experiment to assess whether these concerns affected self-esteem and goal pursuit without being actively cued (as in Study 2).

Buying Destigmatization through CSR-Associated Products

Sukhyun Kim, Seoul National University, Korea*

Kiwan Park, Seoul National University, Korea

Jin Youn, Northwestern University, USA

Materialism is indeed a large, if not the biggest, part of human nature in modern society. At the same time, materialism entails negative connotations. People often feel stigmatized and stigmatize others for engaging in materialistic desires (e.g., buying excessive luxuries). The current research investigates CSR-associated products (i.e., products related to a certain cause) as an effective instrument, specifically for materialists, to destigmatize materialism. We test the proposition in three experimental studies where we either measure materialism (study 1) or manipulate it with a money-prime (studies 2 and 3).

Consumer researchers define materialism as the importance that a consumer attaches to worldly possessions (Belk, 1984) and emphasis imposed on the acquisition of possessions to reach a desired end state such as happiness (Richins & Dawson, 1992). Although materialism is the essence of modern consumerism, most consumers are reluctant to be associated with that concept. Materialists are often stigmatized as having undesirable personality traits, being extrinsically motivated, and hence relatively less likable (Kasser & Ryan, 2001; McHoskey, 1999; Van Boven, Campbell, & Gilovich, 2010). While materialists may want to avoid the negative stigma, past research shows that they are less likely to engage in virtuous behaviors such as donation (Pfeffer & DeVoe, 2009). Materialists, who often define themselves in terms of consumption behaviors, are more likely to turn their attention away from other people and to emphasize egoism in the expense of altruism (Yankelovich, 1981). As such, they may often confront an internal conflict between their inherent materialistic desire and a motivation for destigmatization of materialism.

We propose that compared to traditional forms of prosocial behavior such as donation, CSR-associated products could be perceived as an effective mean to fulfill the two contradicting needs of materialists. Luxury products with CSR-associations are known to send out social signals regarding their benevolence (Bennett & Chakravarti, 2008), lessening the potential risk that consumers are stigmatized of being materialistic. In CSR-associated products, social causes are *directly* linked to products through prominent logos or distinctive designs, such that the causes are repeatedly noted whenever the products are consumed. We examine whether materialists (versus non-materialists) prefer CSR-associated products to donation for the purpose of destigmatizing materialism associated with purchasing luxury products. First, we confirmed in a pretest that materialists felt more stigmatized when buying luxury products (versus mass products). The results indicated that materialists would develop a need to destigmatize materialism when purchasing luxury products, but not mass products.

Study 1 was conducted to reveal the relationship between the degree of materialism and preference for CSR-associated products over donations when purchasing a take-out coffee. Take-out coffees from premium coffee shop brands are over-priced, and may be considered as an affordable luxury product. We used helping children in Haiti from a recent earthquake as a social cause for a CSR-associated coffee. The premium for the CSR-associated coffee over a basic one was equal to the amount of donation involved in purchasing the basic coffee. We measured dispositional materialism (Belk, 1984) and regressed consumer's willingness to engage in each behavior (i.e., to purchase the CSR-associated product or to donate donation) on the dispositional materialism, prosocial behaviors (CSR versus donation), and an interaction between the two independent variables. We found that the two-way interaction was significant ($\beta = 1.15, p < .01$). When we decomposed the interaction by prosocial behavior, we found that materialism increased the willingness

to purchase the CSR-associated product ($\beta = .42, t = 2.89, p < .01$), while it decreased the willingness to donate ($\beta = -.38, t = -2.51, p < .05$).

Study 2 was designed to replicate the results of study 1, but by manipulating materialism using a money prime. Participants in the money-prime condition were instructed to imagine a situation where they won a lottery and had to think about how to spend the money. Participants in the non-money-prime condition were asked to imagine a temple stay experience. A 2 (prime: money versus non-money) X 2 (prosocial behavior: CSR versus donation) ANOVA was conducted. The results revealed a significant two-way interaction ($F(1, 98) = 10.25, p < .01$). Money-primed participants preferred the CSR-associated product more than donation ($M_{CSR} = 4.48$ vs. $M_{donation} = 3.28, F(1, 45) = 3.53, p = .067$), but the opposite results were obtained for the non-money-primed participants. Non-money-primed participants preferred donation more than the CSR-associated product ($M_{CSR} = 3.26$ vs. $M_{donation} = 4.38, F(1, 53) = 8.28, p < .01$).

Finally, study 3 was conducted to show that materialists' preference for the CSR-associated product would be mediated by the need to destigmatize materialism. One half of the participants were primed with money in the same manner as in study 2 and another half of participants were not given any prime task. Participants provided their rating for preference between a CSR-associated and a normal product (normal = 1, CSR-associated = 9). Money-primed participants (versus no-prime group) preferred the CSR-associated product ($M_{prime} = 5.65$ vs. $M_{no\ prime} = 4.13, F(1, 44) = 4.27, p < .05$). We conducted a mediation test using bootstrapping procedures (Preacher, Rucker, & Hayes, 2007). The indirect effect involving the perception toward the CSR-associated product as a means to destigmatize materialism was significant (95% CI = .019 to 1.61).

Through a series of three studies, the present research demonstrates that materialists perceive CSR-associated products as instruments to destigmatize negative accusations related to materialism when purchasing luxury products. Engaging in meaningful causes while purchasing luxury products seems contradictory on the first thought. However, it can serve as an effective strategy for materialists to compromise two conflicting needs. According to Forbes (2009), many luxury brands, such as Prada, Cartier, Rolex, and Hermès, are actively implementing various cause-related campaigns. Although traditional prosocial behaviors such as donations might have higher potential in destigmatizing materialism, they are not preferred to materialists. In conclusion, associating meaningful causes with luxury products is a better way to free materialists from their worries of being stigmatized.

For more information, contact: adachiquai@gmail.com

When Diamonds are not the Poor's Best Friend: How the Poor Deal with Unaffordables

Cara de Boer, K.U. Leuven, Belgium*

Siegfried Dewitte, K.U. Leuven, Belgium

Wouter Vanhouche, K.U. Leuven, Belgium

Should consumers living in poverty be denied access to vice products such as luxury items and hedonic gadgets or should they have free access to these items? Should poor consumers have control over their own purchase decisions or should external parties take control? Extant research with financially deprived (poor) consumers is scarce but suggests that the poor may suffer from impaired self-control skills (de Wit et al., 2007; Green et al., 1996; Reimers et al., 2009). Hence, a straightforward recommendation, often followed by policy makers, is (1) that poor consumers may be better off when they are not exposed to vice products and (2) that these consumers may benefit from external control over their purchase decisions. In this paper, we question these plausible assumptions based on two theoretical lines.

Research in the food domain indicates that being exposed to attractive food items in non-consummatory circumstances may reduce the attractiveness of those items and may lead to an improved self-control capacity in subsequent similar situations (Dewitte et al., 2009; Geyskens et al., 2008). In the present paper we explore the generalizability of this finding to a purchase decision making context among financially deprived consumers. In this context, the role of autonomy becomes very important. Supportive authorities often deprive the poor from their financial decision autonomy (Ruelens and Nicaise, 2002). Nevertheless, there is ample research that illustrates the importance of autonomy in domains such as creativity (Amabile, 1983), relationships (Knee et al., 2005) and, more generally, well-being (Ryan and Deci, 2001).

We manipulate autonomy (studies 1 and 2) and poverty (study 2) and find that attractive consumer goods become less attractive to poor consumers, relative to non-poor consumers, provided that the decision to not purchase is made autonomously. Over time, such a process might lead to a generalized devaluation of luxury items among the poor given that the decision not to purchase is typically made by themselves (study 3).

Data are collected with a convenience sample of students in the controlled setting of a lab (studies 1 and 2) and with a sample of consumers living in poverty outside the lab (study 3). In study 1, participants are exposed to a physically present gadget, a small fan shaped like a penguin, and are made to believe they have insufficient financial resources. Either they can decide themselves not to purchase the target product (autonomous poor) or they are told they cannot purchase (non-autonomous poor). Next, participants rate the gadget and, in a separate evaluation task, photographs of products. Ratings of the photographs were administered to test whether the product devaluation generalizes to other products. For the target product (penguin), a lower preference is observed in the autonomous poor condition. For the photographs, a consistent devaluation pattern is observed in the autonomous poor condition relative to the non-autonomous poor condition. These results are indicative but do not show that the pattern is specific to poor consumers or that the generalization is non-conditional. The generalization may have been due to a high (conceptual) similarity between the items on the photos and the penguin. The autonomy effect may also occur in a condition of non-poor participants.

Study 2 crosses autonomy with poverty (see Nelson and Morrison 2005 for the poverty manipulation), tests generalizability by using a different target product (concert ticket) and adds multiple categories of descriptions to the second evaluation task. Descriptions described items that were strongly related on two dimensions (social activities or band items) or unrelated (a book) to the concert ticket. For the target product, the interaction between autonomy and poverty is significant. Within the poor, autonomous decision makers have lower ratings than the non-autonomous decision makers. Within the non-poor this difference between the autonomous and non-autonomous decision makers disappeared. For the ratings of the descriptions, only the products related to the concert ticket on the social dimension are devalued by the autonomous poor relative to the autonomous non-poor. In other words, the devaluation effect to other products is specific to certain product dimensions.

The evidence in studies 1 and 2 is coherent but its external validity may be limited. In study 3 we measured rather than manipulated autonomy and poverty in a population of financially deprived consumers outside the lab. If autonomous poor consumers consistently devalue luxury items, devaluation of vice products may be observed without the need of an experimental exposure/no purchase procedure as used in the previous studies. In study 3, we compared two groups of poor consumers with a sample of non-poor consumers. The poor consumers had either a history of managing their money themselves (autonomous poor) or of external instances controlling their money. As such, we conjecture that the autonomous poor will be less attracted to expensive items than the poor who rely on external instances to control their expenses or the non-poor. That is indeed what was observed. Autonomous poor consumers showed a lower preference

for expensive items than non-autonomous poor consumers and non-poor consumers. The difference disappeared with less expensive items, which casts doubt on a self-selection mechanism behind the group difference.

Together, the results suggest that financially deprived consumers should not necessarily be deprived from vices by either being denied access or autonomous purchase decision power. On the contrary, exposure to such items may actually lead to devaluation of otherwise attractive goods, at least when consumers feel they can take decisions autonomously. The findings suggest that if public policy wants to strengthen the poor's financial management skills, it may be unwise to deny poor consumers access to luxuries or to control their expenses for them.

For more information, contact: cara.deboer@econ.kuleuven.be

5.3 Symposium: Powerfulness and Powerlessness: Situational and Cultural Moderators of the Consequences for Branding and Consumer Satisfaction

Room: Desert Willow

Chair: Carlos Torelli, University of Minnesota, USA

Super Size Me: Product Size as A Signal of Status

David Dubois, HEC Paris, France*

Derek D. Rucker, Northwestern University, USA

Adam D. Galinsky, Northwestern University, USA

One of the most alarming statistics of food consumption is the 32% rate of obesity within the United States, expected to reach 41% of U.S. adults in 2015 (Wang and Beydoun 2007). These figures are all the more problematic given the fact that the rise in obesity rates has mostly affected vulnerable populations, such as lower socioeconomic status (SES) individuals (Puhl, Heuer, and Brownell 2010). Among other culprits, the food industry has been signaled out for the expansion of its food and beverage assortments to include increasingly larger, "supersized" options (Nielsen and Popkin 2003).

This work investigates whether consumers' size preferences can be influenced by their desire for status. Specifically, given consumers' tendency to equate larger sized objects with greater value or status (e.g., Baudrillard 1969), we study whether consumers who desire status prefer larger options from an assortment of differentially sized products. For example, if given a choice between a small, medium, or large drink, those who desire status should be more inclined to choose the large drink.

We examine desire for status affecting size preferences by looking at one known antecedent of a desire for status: a state of low power. Specifically, because a low-power state is often aversive and undesired, and can reinforce or convey power (French & Raven, 1959; Magee & Galinsky, 2008) consumers have been shown to attempt to alleviate this state by seeking status (Rucker & Galinsky, 2008). This is noted not only by a preference for status objects, but also by a preference for objects that are visible to others (Rucker & Galinsky, 2009).

Hypotheses. We propose three specific and novel hypotheses. First, because consumers generally equate larger sizes with greater value, or status, and a low-power state is associated with a desire for status, we propose individuals in a low-power state will generally opt for physically larger products within an assortment of differentially sized objects. For example, when choosing between a small, medium, or large version of a product, the powerless should be more inclined to choose the largest one. Second, we predict that if the preference for larger sizes derives from size serving as a means

to signal status to others, it should be more pronounced in social consumption settings than in non-social ones. Finally, if status is the ultimate variable at play, we propose that when the size-to-status relationship of a product category is negative (i.e., smaller equated with high-status), the powerless will prefer smaller options, not larger ones, and desire for status should mediate the observed effects.

We conducted three experiments to test these hypotheses. Results were analyzed using ANOVAs, regressions and t-tests, as appropriate.

Experiment 1: Do the powerless prefer larger sizes? Participants were randomly assigned to a 3-cell (power: baseline, high, low) between-participant design and were asked to imagine they were either a boss (high power) or an employee (low power; see Dubois et al., 2010). Next, in a supposedly unrelated task, participants were presented with a choice of three ice creams that varied in the size of the cup (small, medium or large cups), and were asked which one they would be most likely to buy. Low-power participants systematically chose the larger ice cream cup than baseline and high-power participants, $p < .05$.

Experiment 2: The moderating role of consumption social visibility. If the preference for larger sizes stems from size serving as a signaling device to others, it should be greater in social versus non-social settings. To test this hypothesis, experiment 2 varied both power (high, low) and the social visibility of the consumption (private, public, social). Power was manipulated through episodic recall (Galinsky et al. 2003; Rucker and Galinsky, 2008, 2009). Next, in an ostensibly different task, participants were assigned to one of three consumption scenarios. Each scenario entailed choosing between different sizes of pizza for immediate consumption for themselves, but we varied the social visibility of consumption. Consumption either took place at home alone (privately), by one's self in public at the pizza restaurant (publicly) or with friends (socially). In each scenario, participants had to buy a Giordano's Cheese Pizza from a fixed menu with 3 sizes (7'', 9'' and 11'') that was explicitly for their own consumption (i.e., they would not be sharing). There was a significant power \times social visibility interaction, $p < .05$, such that low-power participants significantly chose larger pizzas as the social visibility of consumption increased, $ps < .05$, whereas high-power participants' preference for size did not differ across consumption conditions, $ps > .2$.

Experiment 3: When smaller is equated with greater status. According to our size-status perspective, we expect those who desire status (i.e., the powerless) to prefer smaller sizes when smaller is associated with greater status. To test this idea, after power was manipulated through the recall task used in experiment 2, participants were invited to sample hors d'oeuvres in one of two rooms. Both rooms contained four hors d'oeuvres of different sizes, arranged from smallest to largest. Of central importance, in the first room, a research assistant highlighted that larger hors d'oeuvres are generally served at high-standing events and smaller ones at common events prior to the sampling, thus creating a positive size-to-status relationship. In contrast, in the second room, the research assistant highlighted that smaller hors d'oeuvres are generally served at high-standing events and larger ones, thus creating a negative size-to-status relationship. Results showed powerless participants chose and ate significantly larger (smaller) samples when the size-to-status was positive (negative), $ps < .05$, compared to powerful participants which did not differ across conditions, $ps > .2$. Finally, a mediational model confirmed participants' need for status mediated these effects (95% CI for the indirect effect = .05 to .92).

Conclusion and Contributions. Across experiments, states of powerlessness systematically shifted consumers' preference for product sizes. The preference for larger sizes was reduced when consumption was private (experiment 2) and reversed when smaller equated greater status (experiment 3). Overall, our findings hold new insights for understanding rising rates of obesity among underprivileged individuals. Implications for food consumption are discussed.

For more information, contact: duboisd@kellogg.northwestern.edu

How does Power State Affect the Extendibility of Luxury Status Brands?

Youngseon Kim, University of Texas at San Antonio, USA*

Yinlong Zhang, University of Texas at San Antonio, USA

Extant research on brand extensions has found that luxury status brands have a greater extendibility than non-luxury status brands (Hagtvedt and Patrick 2009; Monga and John 2010; Park, Milberg, and Lawson 1991). For example, luxury status brands such as Rolex can be more easily extended into dissimilar categories than non-status, functional brands such as Timex (Park et al. 1991). However, little research has been devoted to explaining the differential extendibility across different luxury status brands. For instance, luxury status brands such as Armani or Ralph Lauren have done well through broad brand extensions (i.e., brand extensions into different categories from a parent brand—regardless of the level of fit), whereas luxury status brands such as Pierre Cardin have failed after similar brand extension efforts. How can we explain this variation on brand extendibility for these similar luxury status brands? The current research aims to provide an answer to this question.

Although past brand extension research has investigated the role of a variety of brand-related factors for determining an extension success (e.g., perceived fit with the parent brand, Ahluwalia 2008; Keller 2002), the role of consumers' power states has never been explored. Given the central role that power states play in determining consumer attitudes toward luxury products (Rucker and Galinsky 2008, 2009), we argue that consumer evaluations of brand extensions would be influenced by these power states. Consistent with the literature, we define power as the “capacity to control resources and outcomes, both one's own and that of others” (Rucker and Galinsky 2008, 258; Keltner et al. 2003).

Extant research shows that powerful (vs. powerless) consumers tend to have greater access to scarce resources; as a result, they can more easily satisfy their needs and desires (Galinsky, Gruenfeld, and Magee 2003; Keltner et al. 2003). Further, those with power tend to have a desire to let others know that they can afford scarce resources. Because luxury status brands with narrow (vs. broad) extensions are perceived as relatively more exclusive, and suggest that the brand extension is a relatively scarce resource (Kirmani, Sood, and Bridges 1999), we propose that:

H1: Powerful (vs. powerless) consumers will show a stronger preference for luxury status brands with narrow (vs. broad) extensions.

If the effect of power on brand extension preference is due to consumers' desire to show that they can afford relatively scarce resources, then this effect will be stronger when consumers are in a competitive (vs. non-competitive) mindset. This tendency occurs because when under a competitive mindset, consumers tend to engage in social comparison and social competition; further, their desire to show their exclusive social position tends to be stronger. In other words, a competitive mindset tends to drive consumers to outperform others and to be more concerned about their social standing (Ordabayeva and Chandon forthcoming). Formally:

H2: The impact of power on brand extension preference will be stronger when consumers are in a competitive (vs. non-competitive) mindset.

To further test the underlying process, we investigated the role of public versus private consumption. Consumers are more likely to engage in social comparison in public (vs. private) consumption settings (Goffman 1959). Recent studies

show that consumers' desire to be associated with status brands is stronger when engaging in public versus private consumption (Berger and Ward 2010). In addition, consumers are more likely to engage in variety seeking behavior to show other consumers that they are interesting and fun to be with when their consumption is public rather than private (Ratner and Kahn 2002). Similarly, we propose that the two-way interaction between power and competitive mindset will be stronger under public (vs. private) consumption. More specifically:

H3: The extent to which the consumption is public versus private will moderate the interactive effect between power and competitive mindset on extension evaluation for a luxury status brand.

Study 1 was a one factor between-subjects design in which we manipulated power by asking participants to recall a past event in which they were powerful or powerless (Galinsky et al. 2003). After reading a description of luxury status brands with narrow versus broad extensions, participants indicated their attitudes toward two different brand extensions. The results showed that powerful participants preferred luxury status brands with narrow (vs. broad) extensions more than powerless participants. A mediational analysis indicated that the power effect was driven by consumers' belief that luxury status brands with narrow extensions can assist in showing to others their exclusive associations with scarce resources.

Study 2 was a 2 (powerful vs. powerless) x 2 (competitive vs. non-competitive mindset) between-subjects design. The power manipulation was the same as in study 1. After the power manipulation, we manipulated a competitive or a non-competitive mindset (Griskevicius et al. 2009). After that, participants were asked to report their attitude toward a luxury status brand with a narrow versus broad extension. Consistent with study 1, we found that powerful participants liked the narrow (vs. broad) brand extension more than those in the low power condition. Further, this difference was significant for the competitive mindset condition, but not for the non-competitive mindset condition.

Study 3 was a 2 (powerful vs. powerless) x 2 (competitive vs. non-competitive mindset) x 2 (public vs. private consumption) between-subjects design. The power and competitive mindset manipulations were the same as those in study 2. The public versus private consumption was measured with scales from Berger and Ward (2010). Through regression analyses, we found a significant three-way interaction: the two-way interaction between power and competitive mindset was significant for public consumption, but not for the private consumption. The two-way interaction of power and competitive mindset was of the same nature as that in study 2: powerful (vs. powerless) participants preferred the more narrow (vs. broad) extension of luxury status brands; this effect was significant for competitive mindset but not significant for non-competitive mindset.

Our results show a possible theoretical explanation for the inconsistent results of brand extensions of luxury status brands: We conclude that the extent to which a narrow or a broad brand extension is preferred depends on consumers' power states.

For more information, contact: youngseon.kim@utsa.edu

Culture, Concepts of Power and Attitudes toward Powerholders: Consequences for Consumer Satisfaction in Ongoing Service Interactions

Carlos Torelli, University of Minnesota, USA*

Sharon Shavitt, University of Illinois, USA

Timothy Johnson, University of Illinois at Chicago, USA

Allyson Holbrook, University of Illinois at Chicago, USA

Young Cho, University of Illinois at Chicago, USA

Noel Chavez, University of Illinois at Chicago, USA

Culture influences beliefs about what is desirable and meaningful in order to guide instrumental actions (Triandis, 1996). Because power is instrumental for achieving culturally desirable goals, cultures should foster normative standards for its legitimate use (Chiu & Hong, 2006). Indeed, recent research by Torelli and Shavitt (2010) linked vertical and horizontal versions of individualism and collectivism to distinct power concepts. They demonstrate that a vertical-individualistic cultural orientation predicts viewing power as something to be used for advancing one's personal agenda, and hence maintaining and promoting one's powerful status (i.e., a *personalized* power concept). In contrast, a horizontal-collectivistic cultural orientation predicts viewing power as something to be used for benefiting others (i.e., a *socialized* power concept). How do these culturally patterned power concepts impact attitudes toward powerholders? What are the consequences for consumer satisfaction in real-life service relationships?

Many important service interactions are with providers who hold significant power over us (e.g., doctors, lawyers, professors). Personalized or socialized conceptualizations of power should serve as standards one applies to judging such powerholders' behaviors. More specifically, a personalized power concept implies that powerholders will be concerned with advancing their own agenda. In contrast, a socialized power concept implies that powerholders should show concerns for others. As is the case for other interactions, satisfaction with one's service interaction with a powerholder should be based on the extent to which the powerholder meets or exceeds one's expectations (Churchill and Suprenant 1982). Thus, we propose that for horizontal-collectivists (likely to hold a socialized power concept), an interaction with a powerholder would be satisfying to the extent that the powerholder shows concerns for their welfare. This may not be the case among vertical-individualists (who tend to hold a personalized power concept). Because these individuals expect powerholders to use power for their own benefit, an interaction with a powerholder may be satisfying to the extent that it fairly balances one's own outcomes and those of the powerholder (e.g., obtaining a fair share of a doctor's time).

We tested these hypotheses in the context of an important and real consumer service relationship. We chose a health care setting because a patient-doctor relationship is a type of dyad in which the service provider (i.e., the doctor) clearly holds a high power status when compared to the customer (i.e., the patient, see Winter 1973). In addition, a patient-doctor relationship enables us to investigate the role of power in an ongoing, actual consumer relationship, a context that has been neglected in past power research.

We conducted a field study with 342 patients at two medical clinics serving low-income patients in the Chicago area. The study included similar numbers of participants from three ethnic groups: Anglo-Whites (who tend to be vertical-individualists, Triandis 1995), Hispanics (who tend to be horizontal-collectivists, Torelli and Shavitt 2010), and Blacks. Individuals were approached in the waiting room prior to their scheduled health care appointment and were randomly assigned to either the power prime or control condition. Power was primed using six power images (e.g., image of executives disembarking from a private jet, image of a large number of dollars) for which participants rated the levels of clarity and familiarity. The control group answered the same questions about six pictures unrelated to power, but comparable to those included in the power prime condition (e.g., image of a business handshake, image of a

penny). The effectiveness of the power prime in activating the concept of power was pretested with similar participants (N= 57).

Later, in an ostensibly unrelated task, participants completed a survey in which they rated their overall satisfaction with the health care they received in the last 12 months (4-items, summed into an overall healthcare satisfaction index, or SATIS). Participants also indicated the extent to which they perceived their doctor to be a caring provider (4 items, summed into a Physician Caring Index, or CARE), as well as the extent to which they perceived that they were getting a fair share of their doctor's time and attention (4 items, summed into a Physician Exchange Index, or EXCHG). Finally, participants answered several demographic questions (age, income) and other health related measures (i.e., ratings of physical/mental health).

Results from a first regression analyses with SATIS as the dependent variable, and CARE, ethnicity (dummy-coded), power prime (dummy-coded), their two- and three-way interactions, ratings of physical and mental health and age as predictors showed that: For Hispanics, CARE was a stronger predictor of SATIS in the power prime condition than in the control condition (slope = .81 and .45, respectively), whereas the opposite pattern was obtained for Anglo-Whites (slope = .87 and 1.13, respectively). This suggests that, when power is primed (versus control), the importance of physician's level of caring in predicting overall health care satisfaction goes up for Hispanics and down for Whites. Blacks exhibited a behavior similar to that of Hispanics (For blacks: slope_{Power Prime} = 1.61, slope_{Control} = 1.16. Results from a second regression with EXCHG as predictor indicated that, for Whites, EXCHG was a stronger predictor of SATIS, regardless of prime condition, than it was for Hispanics (slope_{Whites} = 1.20 and slope_{Hispanics} = .65).

In summary, findings show that culturally-nurtured power concepts affect the factors that influence overall satisfaction with a powerful service provider. When power is (is not) made salient, people likely to have a socialized power concept (i.e., Hispanics) are more likely to factor in perceptions of the provider as a caring individual. In contrast, those likely to have a personalized power concept (i.e., Anglo-Whites) factor in perceptions that the provider devoted a fair share of time and attention. The fact that some of these findings depended on power salience supports the role of distinct power concepts influencing the service perceptions. These results not only have consequences for understanding service satisfaction, but can also help to explain the cultural antecedents of willingness to follow a leader. This might explain why Latin-Americans favor public figures that show empathy (Auyero 2001), whereas in the U.S. showing empathy might not be a determinant factor to gain influence over people.

For more information, contact: ctorelli@umn.edu

5.4 Individual Papers: A Little Less Conversation: Embodied Cognition

Room: Palo Verde

Chair: Pamela Rutledge, Fielding Graduate University, USA

Using "Miracle Fruit" to Explore How Product Information Affects Experienced Utility

Ab Litt, Stanford University, USA

Baba Shiv, Stanford University, USA*

Consumers' reported experienced utility is shaped not only by intrinsic aspects of a product experience, but also by extrinsic information *about* that experience (e.g., Plassmann et al. 2008, Schmitt 1999). Such information, over which marketers often have considerable latitude to highlight, omit, and reframe, can set expectations regarding quality, familiarity, or other specific experiential aspects of the product. It may also induce motivations shaping what consumers

want to experience or not—for instance, tasting the same distinctive flavor undertones noted by an expert critic in a fine wine could signal that one has a similarly refined palate and ability to discern wine quality.

Do effects of extrinsic cues on reported experiences reflect true distortions of consumers' fundamental sensory/perceptual experiences of products? This need not be so. For instance, it is possible that the actual basic sensory experience depends only on intrinsic aspects of the product itself, with extrinsic factors acting instead as additional "input" features that are independently evaluated and integrated into overall liking/utility judgments. That is, rather than distorting the essential perceptual experience, extrinsic cues simply present product attributes that are valued/devalued in their own right. Alternatively, as seems especially possible for extrinsic cues inducing motivations, reported effects on experience may simply reflect self-presentation or experimental demand biases. Discerning whether extrinsic cues induce "true" experience distortion is no simple matter. Previous research addressing this critical question has involved clever but generally indirect tests (e.g., Lee et al. 2006) or inferences drawn from brain-activation regions (Plassmann et al. 2008), approaches entailing necessary design complications, introducing questions regarding inferable conclusions, and often leaving important aspects of this issue unresolved.

This work introduces a new psychophysiological consumer-research paradigm—directly disrupting consumers' basic taste-perception ability for a specific flavor, without their awareness—that allows a simple and direct test of whether extrinsic information can truly affect the fundamental sensory/perceptual character of product consumption experiences. Using an extract of the glycoprotein miraculin from the fruit of *Synsepalum dulcificum* (commonly referred to as "miracle fruit"; Daniell 1852, Kurihara and Beidler 1968) we disrupted consumers' normal ability to perceive sour flavor elements in red wine. By examining subsequent responses to pre-consumption product-related information regarding potential sour taste elements in a sampled wine, we cleanly tested the following research question: Does the specific and surreptitious disruption of the basic sensory ability to taste such flavors—and that alone—change how extrinsic information signaling such flavors influences reported liking and taste responses, relative to a group in whom this taste ability is not disrupted?

Observing this (i.e., miraculin disrupting the effect on taste-experience ratings of an extrinsic cue regarding possible sour taste) would provide strong evidence that such extrinsic cues operate at least partly via changing the basic sensory/perceptual consumption experience. Conversely, negligible effect of miraculin on taste/utility evaluations would imply such extrinsic cues have their effects regardless of whether or not the actual ability to perceive signaled flavors is disrupted. This would thus indicate that extrinsic information does not shape responses at the level of affecting the basic perceptual experience itself, but by other means.

Studies. After piloting the effects of miracle fruit on taste experiences of various foods and drinks, we conducted two primary studies using red wine as the focal stimulus. Both studies had similar 2x2 designs ($n=80$ each). The first manipulation was whether participants, under a "palate-cleansing" cover-story before a wine-tasting, dissolved in their mouths either an inert pill or miraculin pill (both equally tasteless and chalky, but only the miraculin pill affecting subsequent taste-perception ability). The next manipulation was in accompanying "Critic's Notes" that participants were asked read before tasting the wine. In one condition this extrinsic cue gave generic product-related information (e.g., winery name/history, vintage). Another condition augmented this information with a single sentence that either (Study 1) induced *expectations* that the wine might taste unpleasantly sour (due to "inferior barreling and corking practices" of this winery), or (Study 2) induced a *motivation* to *want-to-taste* sour flavor elements in the wine (the critic noting that "true connoisseurs and those with sensitive palates [are] able to detect and appreciate the authentically tart and sour undertones that enhance the taste experience").

Inert-treatment conditions across both studies showed typical effects. In Study 1 these participants liked the wine less

with the (negatively-valenced) sour-taste signal, and in Study 2 liked the wine more with the (positively-valenced) sour-taste signal, with both of these sour-signal groups saying they detected more sour/tart/bitter undertones in the wine. Study 2's inert-treatment/sour-signal participants also rated their own "palate sensitivity" (ability to discern wine quality) as higher, consistent with tasting sourness being noted by the critic as a sign of palate sensitivity.

Critically, miraculin treatment disrupted these effects. Both studies found interactions between taste-treatment and product-information conditions. When participants' ability to actually perceive sourness was disrupted, they did not report tasting the wine as more sour in sour-signal conditions, nor showed corresponding positive/negative shifts in reported liking. This held whether they had expectations of sourness (Study 1) or motivation to want to taste sourness (Study 2). Moreover, Study 2's miraculin-treatment/sour-signal participants rated their own palate sensitivity as *lower*, consistent with an inability to actually perceive what the critic noted as indicating palate sensitivity. Results thus supported the view that extrinsic information can fundamentally distort basic perceptual experience of products, rather than acting via biasing only self-reports of experiences, or as independent inputs to utility judgments.

Conclusions. This research makes two key contributions. First, we implement a clear and simple design that provides strong evidence that information extrinsic to the inherent experiential aspects of a product can truly distort the sensory/perceptual nature of the product experience. Second, we introduce a new psychophysiological methodology to the "toolkit" of consumer psychologists: the use of miraculin to directly disrupt basic taste-perception capabilities. In concluding discussion remarks this talk will outline other promising potential applications of this inexpensive, safe, simple, relatively specific, and transient-duration taste-manipulation methodology to exploring phenomena in branding, conscious and unconscious memory, hedonic adaptation, and other areas of consumer psychology, in new and valuable ways.

For more information, contact: shiv_baba@gsb.stanford.edu

Tasting Beauty: Effects of Physical Attractiveness on Taste Perception

Lily Lin, University of British Columbia, Canada*

JoAndrea Hoegg, University of British Columbia, Canada

Karl Aquino, University of British Columbia, Canada

Is the taste of a meal enhanced by the appearance of one's server? Prior work has demonstrated that an attractive female server can lead to higher tips and higher restaurant evaluations (Hornik, 1992; Lynn & Simons, 2000). Other research in taste has investigated how various elements of the product or service experience such as brand name or price can alter taste perception (e.g., Hoegg & Alba, 2007; Hoyer & Brown, 1990). However, no research has united these two streams to examine whether the presence of physically attractive servers influences taste perception. In this paper, we sought to empirically test whether and how the presence of attractive persons impacts consumers' evaluations of food products.

On the one hand, previous research has demonstrated that the physical attractiveness of salespersons or spokespersons can influence attitudes toward various products (e.g., Baker & Churchill Jr., 1977; Caballero & Pride, 1984; Hafner & Trampe, 2009). Based on these findings, it appears that if attractiveness impacts taste perception, it should do so in a halo-like manner. Halo effects (Dion, Berscheid, & Walster, 1972) occur when the possession of a single positive trait such as attractiveness leads to the attribution of other positive qualities in objects or concepts associated with that attractive individual (Hagtvedt & Patrick, 2008). On the other hand, it is possible that the relationship is more complex and bi-directional. According to context effects theory, the valence of contextual information can influence people's evaluations of target objects (e.g., Meyers-Levy & Tybout, 1997; Schwarz & Bless, 2007, 1992). Specifically, an

assimilation effect occurs when there is a positive correlation between the valence of the contextual information and evaluations of the target object, and a contrast effect occurs when there is a contrast, or negative correlation between the valence of the contextual information and evaluations of the target object.

While a halo effect and contrast-assimilation effect will produce the same outcome for pleasant tasting foods (i.e., an attractive person will make pleasant foods taste more pleasant), a different outcome would result for unpleasant tasting foods. The halo effect predicts that an attractive person will also make unpleasant tasting food more pleasant, whereas the contrast-assimilation effect predicts that an attractive person will make unpleasant foods *more* unpleasant because the taste experience would be influenced by the valence of the contextual information. We tested these competing possibilities in three studies.

Study 1 examined how exposure to attractive versus unattractive individuals would alter evaluations of a relatively pleasant tasting food and a relatively unpleasant tasting food. Fifty-eight male undergraduates viewed colored headshots of either two relatively attractive or relatively less attractive females, and were given three minutes to form their impressions of each female. Following this task, participants were given a product that was relatively pleasant tasting (i.e., three ounces of a fruit juice) and a product that was relatively unpleasant tasting (i.e., yeast based vegetable spread on a plain cracker), order counterbalanced across participants. Results showed that while a relatively pleasant tasting product was rated as less bitter, sweeter, and more likeable after exposure to attractive females, the unpleasant tasting product was rated as more bitter, less sweet, and less likeable after exposure to attractive females. These results appear more consistent with a contrast-assimilation explanation, whereby the positive contextual information was used as an anchor for comparison (Schwarz & Bless, 2007, 1992; Stapel & Winkielman, 1998) when people tasted and evaluated the unpleasant food product.

Study 2 examined the direction of the effects from study 1 by adding a control condition to our manipulation of physical attractiveness. This study also employed a real person, made to appear more or less attractive, to serve the food to participants. A professional actress was hired to act as a server for the attractive and unattractive conditions, and a male confederate was hired for the control condition. Sixty-six male undergraduates participated. The server brought each participant a tray containing one sample of the relatively unpleasant tasting product (i.e., vegetable spread on a plain cracker), and results showed that in comparison to those in the unattractive and control conditions, global taste ratings (“liking”, “tasty”) became more negative when participants were in the presence of an attractive female. Ratings were not significantly different between the control and unattractive conditions, suggesting that the influence of the confederate occurred when she was attractive rather than unattractive.

Study 3 examined whether exposure to attractive individuals influenced people’s actual taste sensations or merely their ratings of the food product (Lee, Frederick, & Ariely, 2006). This study employed a 2 (physical attractiveness: attractive vs. unattractive) x 2 (order of attractiveness manipulation: before tasting vs. after tasting) between-subjects design. The physical attractiveness manipulation was the same as study 1, and the procedure for the before-tasting condition was also the same as study 1. Participants in the after-tasting condition tasted the spread first, but did not provide ratings. They were then given the attractiveness manipulation, and subsequently provided their ratings for the spread. The results showed that contrast effect of attractiveness on taste occurred only when exposure to the attractive individual preceded the taste experience. At least in a taste perception realm, it appears that the contrast effect is moderated by the timing of the presentation of the contextual information.

Our research suggests that while there may be some benefit to having attractive servers in dining establishments, this strategy may actually diminish rather than enhance the quality of the diner’s taste experience if the food being served has some unpleasant or unusual qualities. The results from our last study indicated that the negative consequences of

having attractive servers present can be reversed if the introduction of these attractive servers is timed correctly. That is, it may be advantageous for restaurants that serve unusual or unfamiliar flavors to expose their patrons to the attractive servers or staff after they have had the opportunity to try the food item and established their taste experience. In this instance, beauty may indeed help (rather than hurt) people's evaluation of their taste experience.

For more information, contact: lily.lin@sauder.ubc.ca

How Warm and Cool Colors Reverberate and Shift Psychological Power

David Dubois, HEC Paris, France

Ravi Mehta, University of Illinois, USA*

Color has played a significant role in human perception, cognition and behavior since ancient societies (Varichon and Ballas, 2006). Color theorists propose that the influence of color stems from learned associations: when people repeatedly encounter situations where different colors are accompanied by particular experiences and/or concepts, they form specific associations to colors (Mehta and Zhu, 2009). In particular, many have pointed out that colors can become associated with various positions of power (Brusatin, 1991; Gage, 1993; Pleij, 2004). However, a strong empirical evidence has not yet been established and little is known about the interplay between colors and power on human perception and behavior.

The current work addresses this gap by posing two important questions: can colors systematically signal power or the lack thereof? Conversely, can colors alter individuals' sense of power? We focus on warm vs. cool colors, given their preeminent role in color theory (Goethe, 1970; Whitfield & Wiltshire, 1990). We propose that exposure to warm (vs. cool) colors can activate warmth (vs. competence) concepts, and, in turn, fundamentally affect observers' perception of power and actors' feelings of power. First, warm and cool colors can serve as a power cue to observers by signaling a person or an object's rank in the social hierarchy; second, warm and cool can affect an actor's own state of power when associated with the action he or she is engaged in. In support for our proposition, past work has shown that warm colors can be associated with interpersonal warmth (Arnheim, 1954; Itten, 1961), and that cool colors can activate cool-related concepts, such as being confident and competent (Scherbaum & Shepherd, 1987). In addition, warmth and competence interact with power in two ways: perceptions of competence, relative to warmth, generally signal greater power (Abele, Cuddy, Judd, & Yzerbyt, 2008; Cuddy, Fiske, & Glick, 2008); and increases in power are linked to greater expression and liking of competence, relative to warmth (Dubois et al., under review).

We report four studies that provide systematic support to our hypotheses. We manipulated color (i.e., hue) through the background screen color of the computers on which studies were completed. Based on previous research light blue ($H = 130, S = 255, L = 128$) was used as a cool color; yellow ($H = 25, S = 255, L = 128$) was used as a warm color.

Study 1 tested our basic hypothesis that cool as compared to warm colors signal greater power to an observer. Participants made snap judgments of individuals' pictures presented in cool vs. warm colors, on two items that measured power (this person has power; high status, $\alpha = .91$). As hypothesized, participants judged individuals more powerful when presented on a cool background than when presented on a warm background.

Second study sought to provide convergence on the effect of warm vs. cool colors on social judgments by examining power perceptions of organizations. Indeed, recent research showed that perceptions of organizations, like humans are tainted by impressions of warmth and competence (Aaker, Vohs, & Mogilner, 2010). Specifically, we assessed whether differences in perceived power would correlate with differences in perceived competence and warmth (i.e., the two

dimensions of social judgment; Fiske, Cuddy and Glick 2007). Participants were presented with a series of ten gray shaded logos one at a time in random order on a computer screen with background color set as cool (i.e. blue); warm (i.e., yellow); or neutral (i.e. white). Participants then reported how competent or warm they felt each company was on a seven-point scale. Also they made power judgments about the company. Again participants judged the companies as more powerful when presented on the cool than on warm and neutral background. Participants also judged the companies as more competent when presented on the cool or white background. In contrast, participants judged the companies as warmer when presented on the warm (vs. cool and neutral) color background.

Next study assessed how colors in one's direct environment affect one's own sense of power. Participants completed three different tasks known to trigger increased power, namely simulated blackjack game (action orientation), Gestalt Completion Task (abstraction) and a risk perception task on computers with either cool or warm color background screen. As hypothesized, results from all three tasks supported our hypothesis that cool color increased people's tendency to behave powerfully.

Study 4 provided converging evidence for the effect of color on one's sense of power in a field experiment utilizing a consequential task: voting behavior. Experiment was run during an election of a resident representative of a high-rise building in a metropolitan area. The experiment took place in three distinct lobbies of this building, where highly visible banner advertising Resident Representative Election Day covered the walls of the lobby. Key to the experiment, the color of the banners was cool (i.e., blue) in the first lobby, warm (i.e., yellow) in the second lobby, and neutral (i.e., white) in the third lobby. Three experimenters counted the total number of residents exiting the building and the number of residents who approached the table to vote. Overall, significant more percentage of residents exposed to the cool (vs. warm and neutral) colored banner approached the table to vote. This study thus speaks to how to nudge individuals to make them act more powerfully. Because higher power prompts action-orientation, promoting an election using cool colors might increase potential voters' sense of power, and in turn, their likelihood to vote.

For more information, contact: mehtar@illinois.edu

Ovulatory Cycle Effects on Women's Conspicuous Consumption

Inge Lens, K.U. Leuven, Belgium*

Mario Pandelaere, Ghent University, Belgium

Luk Warlop, K.U. Leuven, Belgium; Norwegian Business School, Norway

It is well-documented that, in response to women's preference for men with wealth and status (Colarelli & Dettmann, 2003; Kenrick, et al., 1990), men in a mating mindset engage in conspicuous consumption (Griskevicius et al., 2007; Sundie et al., 2011). Little is known, in comparison, about how women's interest in status-signaling products is influenced by the activation of mating goals around ovulation. Recent research in this context (Lens, Driesmans, Pandelaere, & Janssens, 2011) has shown that ovulation diverts women's attention to status-signaling products. However, it remains unclear whether women's own status consumption is affected by the activation of mating goals.

On the one hand, it is plausible that women in a mating mindset engage *more* in conspicuous consumption. For instance, ovulating women are willing to pay more for products that increase their attractiveness (Hill & Durante, 2009), which suggests that they may use their financial resources to compete with other women for the attention of men. In addition, contemporary women, who are financially less dependent on their partners, may believe that their own conspicuous consumption increases their chances of attracting a desirable mating partner. However, other findings suggest that women's mating motives are likely to be unrelated to their engagement in conspicuous consumption behavior. After all,

women with status do not receive more attention, whereas attractive women do (DeWall & Maner, 2008), and financial expenditures of women are not related to their mating intentions or mating success (Kruger, 2008).

This paper explores how mating goal activation affects women's engagement in conspicuous consumption behavior. In study 1 we show that, instead of producing a positive or no effect, women's mating motives (activated around ovulation) *negatively* influence their tendency to engage in status-signaling consumption. Study 2 aims to explain this unexpected finding.

Study 1

In study 1, 142 female students imagined that they had over €10,000 in their bank account and were considering buying some new things (cf. Griskevicius et al., 2007). On a 13-point scale they indicated how much they would like to spend on a number of items, some of which conspicuously display one's wealth and some of which do not display one's wealth (books and DVD's, household medication, ...). For the conspicuous products, we included more female oriented products (branded clothes, jewelry,...) and more unisex products (laptop, television, ...). Afterwards, participants reported the start of their last menstruation (cycle day 1). Based on their cycle day, we divided participants in three cycle phase groups (menstrual, fertile or luteal phase; cf. Miller, Tybur, & Jordan, 2007). Because pill usage suppresses the natural flow of hormones, we predict effects for normally cycling participants, not for pill users.

Spending intentions on both types of conspicuous products did not differ significantly. Hence, one composite variable measuring participants' conspicuous spending was formed. A three-way GLM with cycle phase (menstrual vs. fertile vs. luteal) and pill use (pill vs. normally cycling) as between-subjects factors and type of product (conspicuous vs. inconspicuous) as within subjects factor yielded a significant three-way interaction. The interaction between cycle phase and pill use was significant for the conspicuous products not for the inconspicuous products. Specifically, the data suggest that ovulating women (fertile phase) do not tend to engage in conspicuous consumption to increase their mate value – in fact, they indicate to spend less on conspicuous products than normally cycling women in both other phases do. No significant effects were found for pill users.

This seems to suggest that ovulating women (consciously or unconsciously) consider the possibility that their own status consumption may discourage men. Indeed, evidence suggests that the partner choice process is influenced by calibration mechanisms (e.g., Bailey, Durante, & Geary, 2011) which help individuals to reduce the number of potential partners to a smaller subset to avoid wasting time and effort on ineffective mating efforts. Consequently, men might interpret women's conspicuous consumption as a signal that their own financial resources may not suffice to convince them of their quality as a mating partner. Hence, when a woman spends large amounts of money on status products, she runs the risk that men will decrease their efforts to seduce her. If this assumption holds, one might expect that ovulating women will engage less in conspicuous consumption behavior (as in study 1). Study 2 provides a first attempt to show that women's conspicuous consumption indeed decreases men's confidence in the outcome of their mating efforts.

Study 2

In study 2, seventy-nine male students immersed themselves in a scenario about a hypothetical interaction situation with a woman who was either described to carry status products (branded clothes, BMW car key) or not (unbranded clothes, Opel Corsa car key). Next, participants indicated how much money they expected having to spend on presents to attract this woman and they indicated how easily they believed they could attract her. Afterwards, materialism (Richins & Dawson, 1992) was measured. We included this variable because in particular materialistic men may be sensitive to women's conspicuous consumption, given their strong concern with luxury consumption and status (Belk & Pollay,

1985; Richins & Dawson, 1992). Indeed, materialistic men (not men scoring low on materialism) expected having to spend more money to attract the woman when she engaged in conspicuous consumption behavior (compared to when she did not) and they were less confident about the effectiveness of their mating efforts.

Discussion

Our findings show that ovulation motivates women to engage less in status-signaling consumption (study 1); likely because they are aware that this behavior might reduce men's confidence in their mating efforts (study 2). This seems to be particularly true for materialistic men, who generally attach more importance to their wealth and possessions, and thus are more likely to engage in conspicuous consumption in a mating context as well. Future research will explore whether certain women (e.g., whose own perceived mate value is sufficiently high) use this knowledge and thus strategically engage in conspicuous consumption to discourage undesirable prospects.

For more information, contact: inge.lens@econ.kuleuven.be

5.5 Symposium: Visual Psychology: Consumer Attention, Perception, and Action Within Marketing Media

Room: Cottonwood

Chair: S. Adam Brasel, Boston College, USA

Switch Triggers: Media Multitasking and Capturing Consumer Attention

S. Adam Brasel, Boston College, USA*

Changes in the media landscape have made simultaneous viewing of television and usage of the internet commonplace, with individuals under 30 already estimating that over 40% of their television and internet usage occurs simultaneously (Ball State Video Consumer Mapping Study 2009). While prior research has called out for further exploration of media multitasking (Pilotta and Schultz 2005), little work has explored how consumers are navigating this new media environment and most consumer media research remains mono-media focused in design (McDonald and Meng 2009).

This work expands on initial exploratory research by Brasel and Gips (2011) into media-multitasking, moving beyond observations of media switching behavior into eyetracker-based recording of exact participant visual attention and the coding of stimulus triggers for attentional switching. Drawing upon research from visual psychology, human-computer interface design, and artificial intelligence coding, we identified a system of forty stimulus variables that are likely to capture attention within a medium, encourage switching from medium to medium, or discourage switching to the alternative medium. A custom 20-minute television show was created and coded frame-by-frame for the presence of these variables, while a series of websites were created with typical web content, along with custom-designed banner and skyscraper ads to surround the content, that participants could explore interactively.

The study design brought sixty participants into our eyetracker lab, where they were randomly assigned to three conditions. The first group saw both the television and internet content simultaneously (each on ½ of a 24" computer monitor), the second group saw only the television content (on the same ½ as the first condition with the other ½ blacked out), and the third group saw only the internet content (on the same ½ as the first condition with the other ½ blacked out). These mono-media conditions served as controls and allowed the exploration of effects both within and across media for media multitasking environments.

Results show that individuals switch their attention between media at an astounding rate, averaging over 6 switches per minute. The median gaze for either media is quite short, at less than 10 seconds for computer content and under 5 seconds for television content. Post-stimulus surveys confirm that much of this switching is taking place outside of active awareness, as participants under-recall their switching behavior by an order of magnitude. This rapid-fire switching also leads to significantly higher incidental visual attention to and fixations on the banner and skyscraper ads surrounding the internet content, as the amount of visual search and visual distance covered was far greater for multitasking participants.

Frame-by-frame analysis of video content reveals that text within the television content has a strong ability to encourage switching towards the video when the participant is attending to the internet content, but little ability to retain attention beyond the time necessary to process the text. Consistent with prior work in visual psychology, motion onset and strong contrast or luminance changes also encouraged switching to television content from internet content, likely due to bottom-up visual processing abilities in peripheral vision to detect motion and luminance changes, but not color and detail. More traditional stimuli that captured strong visual attention in monomedia presentation, such as faces or animals, exhibited reduced power of attentional capture in a media multitasking environment. Interestingly, commercials did not see an increased incidence of switching away from the television content when compared to the show. This is consistent with the higher incidence of luminance shifts, screen text, and large motion-paths across the television space within commercial content.

Media switching within the internet stimulus (loading new pages or switching websites) showed a U-shaped effect on switching, with an initial strong push away from the internet content followed by strong attentional return to internet content that faded over the following 15-30 seconds. Interestingly, banner and skyscraper ads that advanced without user input exhibited no such effect, suggesting this attentional pattern on page-change is due more to interactivity and increased involvement, rather than any innate bottom-up visual process.

Post-stimulus survey measures revealed that self-reported preference for, or frequency of, media multitasking had no predictive effect on any visual measures or switching behaviors, while the multitasking condition suffered reduced recall and rated enjoyment for both television and internet content. Taken with the visual findings, these results suggest that much of media multitasking behavior is automatic and outside of active conscious control. Numerous visual signals activate bottom-up visual processing within peripheral vision, automatically pulling attentional focus. This work represents an early exploration into the behavior of consumers in this new media-multitasking environment, and suggests that our traditional models of media and advertising effectiveness created in monomedia environments may no longer apply.

For more information, contact: brasels@bc.edu

Video Ads Virality

Thales Teixeira, Harvard Business School, USA*

Viral video ads are commercial videos placed and shared online. By producing content that consumers are motivated to view and pass along within their social networks, advertisers can benefit from persuasive word-of-mouth effects while saving on media buy. This research looks at properties of successful viral ads as creators of two sources of consumer utility: content and social distribution utility. It disentangles the role of the creative from that of the sharer's social inclination to share. In the popular domain of humorous ads, content utility is assessed via facial expressions evoked during viewing, while sharing behavior is related to personality traits (e.g., extraversion, others-directedness).

In the domain of humorous ads, I examine the role of type (plain versus surprising) and temporal location of humor, as these are the most predominant online ads. In TV there has been much work done on the role of humor using judges to code the content (e.g., Woltman Elpers et al. 2004) as well as manual coding of viewers' facial reactions (Derbaix 1995). However, additional insight is needed in a context where viewers can choose what to view and what to share. This research provides this insight, using data collected unobtrusively from automatic analysis of facial expressions linked to humor. Humor is very idiosyncratic so using self-report or judges to code it would not capture appropriately its temporal location or heterogeneity across viewers. In doing so, I address the question: when during the course of viral ads does humor have the greatest impact? Also, what humor gets viewed and what gets shared?

Using the lab-collected data, I calibrate a sequential model of viewership, sharing, and spamming (i.e. sharing with multiple acquaintances). The model accounts for the dynamic role of humor in the ad as well as mixed interval-type decisions (viewing) and one-time decisions (sharing and spamming). I find that ads more likely to be fully viewed provide increasing humor over time, but those that are shared most often tend to evoke humor in higher amounts toward the beginning and end. I also assess the types of humor that get shared more and less often. Surprising humor is viewed more but shared less often, while plain humor has the opposite effect. Regarding personality, extraverts and the socially self-centered (non other-directed) are more likely to share viral ads with their acquaintances. These findings are explained by social-monitoring theory. This is novel evidence that people who share ads online are often not doing so altruistically, i.e. uniquely to please the receiver, but, at least in part, to benefit themselves by gaining social status.

In a small-scale field study, people with different social personalities are targeted with various types of humorous and surprising ads and I find that ads high (versus low) in humor get three times more views, and 50% more on top of that if sent by highly extraverted (versus introverted) senders. Highly (versus low) unexpected humor ads are viewed about 40% less.

Based on these findings, practical recommendations are discussed. Importantly, content that other researchers have found to work for TV ads (Burton et al. 2011, Woltman Elpers et al. 2004) doesn't necessarily work for generating viral views. Also, since individual personality explains a sizeable portion of a viral campaign's success, any brand can in theory greatly increase their chances of success if they master the distribution and entertaining delivery of content (type and timing) so as to reach the consumers who are more predisposed to social sharing.

For more information, contact: tteixeira@hbs.edu

Affect Transfer Between Television Show and Brand Placement: A Two Way Street?

Martin Petroll, Universidade Federal do Paraná, Brazil*

Paulo Henrique Müller Prado, Universidade Federal do Paraná, Brazil

As consumer attention within media grows increasingly scarce (Davenport & Beck 2001), consumers are also gaining control over ad exposure in television programming through technological innovations that allow easy zapping, zipping or skipping (Elpers, Wedel & Pieters 2003). To circumvent this situation, advertisers are investing heavily in "unskippable advertising" (Wiblum, Goeree & Ridder, 2008), frequently appearing as product or brand placement within television content.

Product Placement is receiving growing attention in the academic literature (Balasubramanian, Karrh and Patwardhan 2006). For example, Homer (2009) found that brand and TV show attitudes decreased when product placements were

explicitly shown and Cowley and Barron (2008) discovered that prominent placements negatively affected brand attitudes of viewers with high levels of program liking, but positively affected those with low levels of program liking. The majority of studies found that product placement is good for memory, but effects on attitudes and consumer behavior remain mixed.

This focus on brand memory and behavior has caused reduced attention to the issue of affect transfer between show and brand. It is not clear when affect generated by TV show content "flows" into the brands placed within that show content. But need this transfer be unidirectional? There is, as far as we know, no research about a possible inverted affect transfer from brand placement back into show content. That is, can affect generated by particularly resonant brands for a consumer "flow" from a brand placement back into the show content?

This is the main contribution from this study: to show if there is affect transfer between brand and TV show and, if yes, in which direction does it occur. It builds upon prior psychological theory such as the Persuasion Knowledge Model of Friestad and Wright (1994) and the Spillover Hypothesis and Excitation Transfer Theory ideas from Tavassoli, Schultz & Fitzsimons (1995) and Schumann & Thorson (1990), respectively. These models provide a foundation to predict that as affective involvement with the TV show grows, memory for placed brands will also grow, but at the cost of diminished attitudes towards the placement and the brand. Exploring affect transfer back to the show, we predict that high affective involvement with a brand will transfer to overall attitudes toward a show when affective involvement is negative, but not when affective involvement is moderate or positive.

These predictions are explored via two studies. The first study manipulates television show involvement to three levels (high -vs- moderate -vs- low) and brand placement prominence to two levels (prominent versus subtle). In this study, the placed brand is unknown to the study participant to prevent prior opinion from confounding the results. The second study uses a three-level Brand Affect manipulation (strong positive affect -vs- neutral -vs- strong negative affect), where the television show is unfamiliar to study participants to control for prior show opinion confounding the effects. Visual attention during these studies is recorded using corneal-reflection eyetracker technology, and post-stimulus surveys record attitudinal and emotional measures towards the brand and show. Product placement is conducted in these studies using digital on-screen graphics ("DOGS"), and appear on the bottom of the screen. This form of on-screen advertising (known as banner or "snipe" advertising) is growing more common, and has recently started to see usage outside of networks advertising their own programs.

Findings from these studies expand prior work in product placement in two key ways. First, this work records and explores the visual dimension of product placement, quantifying a frequently opaque antecedent of cognitive and affective reactions to brands that employ the technique. Second, and more importantly, this work explores whether affective and attitudinal transfer is more of a two-way street than the traditionally proposed unidirectional transfer from show to placed brand. If placed brands have the ability to impact affect and attitude towards show content, further care must be placed to ensure that brand placement does not harm consumer show enjoyment to the point of encouraging switching behavior.

For more information, contact: martin_petroll@yahoo.com.br

5.6 Individual Papers: Me and My Monkey: All Things Social

Room: Mesquite 2

Chair: Ernest Baskin, Yale University, USA

I'll Sell That for a Dollar: How Social Threats Devalue One's Possessions

Esta Denton, Northwestern University, USA*

David Dubois, HEC Paris, France

Derek D. Rucker, Northwestern University, USA

Threats to consumers have far-reaching effects on consumer behavior (see Rucker & Galinsky, in press, for a review). The majority of this literature, however, has focused on consumers as *buyers* and investigated how threats impact consumers' willingness to spend on products based on whether they have the potential to alleviate the threat or not. The present research investigates how threats affect consumers as *sellers*. Specifically, we propose that experiencing a threat has the potential to spillover to the valuation of one's possessions. As a consequence, although past research on the endowment effect has shown that owning an object increases its value, the present work proposes that threatened sellers might price owned possessions as lower than objects they do not own.

Past research has posited that one's possessions are often evaluated in relation to the self (Belk, 1988). For example, an individual for whom football is a large part of his identity is likely to value an autographed football more than an individual who has little passion for the game. Building on this idea, we propose that when the self is threatened, changes to the self may affect the value of one's possessions. Specifically, when threats diminish *social worth*—*one's value relative to others*—we hypothesize that the experienced loss in social worth might spillover onto their possessions. Threatened sellers should set lower prices for objects they own compared to non-threatened sellers.

Furthermore, we propose our devaluation effect should be moderated by the degree to which the threat is social versus personal. Less social threats should have less impact on social worth. For example, an individual's intelligence might be under threat because she is focused on the fact she performed poorer than her classmates (i.e., a very social threat) or because she received a grade on a test that was below her own personal standard (i.e., a more personal threat). Although each instance reflects a threat to one's intelligence, the loss in social worth, and subsequent devaluation of one's possessions should be greater when the threat is social in nature.

Finally, we predict that social threats do not devalue every possession an individual owns. In particular, when possessions have the potential to help alleviate the threat, we hypothesize that its value to cope with the threat *increases* the product's value in the eyes of the consumer. For example, an individual whose intelligence is threatened may part with their favorite science fiction novel for less, but sell their encyclopedia collection for even more.

We test these hypotheses across three experiments.

Experiment 1: Can Social Threats Devalue One's Possessions? Undergraduates were randomly assigned to a 2 (mug ownership: owned, non-owned) \times 2 (threat condition: no threat, social worth threat) between-subject design. Participants were first given a mug to own or to use just for the session. Threat was manipulated by instructing participants to recall a time they went to the grocery store (no threat) or performed poorly relative to others (social worth threat). Subsequently, all subjects were asked at what price they would sell their mug. A significant interaction emerged ($p < .01$). In the no threat condition, participants owning the mug set a higher selling price than participants who did not own the mug ($p < .001$), consistent with findings from the endowment literature. In contrast, threatened

participants set a lower selling price when they owned the mug than when they did not own the mug ($p = .001$).

Experiment 2: Social Threats versus Personal Threats. Undergraduates were randomly assigned to a 2 (ownership of a pen: owned, non-owned) \times 3 (threat condition: no threat, social, personal) between-subject design. Participants were given a pen to own or simply to use for the session. Threat was manipulated using a recall task, where participants were asked to recall a list of items they purchased the last time they were at a grocery store (no-threat), performed poorly relative to others (social threat), or performed worse than their personal standard (personal threat). Finally, participants had the opportunity to set the price of the pen. An ANOVA revealed a significant 2-way interaction ($p < .001$). Replicating Experiment 1, participants in the social threat condition set a lower selling price when they owned the pen compared to when they did not own the pen ($p = .02$). However, threat did not inherently lead to devaluation, as when threats were personal in nature, participants actually showed a tendency to set higher prices when they owned the product compared to when they did not. This latter effect also occurred in the no-threat condition. Additionally, experiment 2 found that the decrease in price was mediated by participants' loss of social worth.

Experiment 3: The Value of Possessions that Alleviate Threat. Undergraduates were assigned to a 2 (ownership: owned, non-owned) \times 2 (threat condition: no threat, threat) \times 2 (product relevance: threat irrelevant, threat relevant) between-subject design. Participants were given a new pen to own or to use momentarily. The pen was described to participants as an opportunity to display one's intelligence to others in the threat relevant condition (i.e. it was capable of alleviating the threat), and as just a pen in the threat-irrelevant condition. Threat was subsequently manipulated using the same recall task than in former experiments. Finally, participants were asked to set the price they would sell the pen for. An ANOVA revealed a significant 3-way interaction ($p < .001$). When products were threat-irrelevant, threatened participants devalued products they owned. However when products were threat-relevant, there was a significant ownership \times threat interaction ($p = .03$). Threatened participants owning the threat-relevant pen set an even higher selling price than threatened participants who did not own the pen ($p < .001$).

Conclusion and Contributions: Threatened individuals set the selling price of an item they owned lower than non-threatened participants. This effect was moderated when threats were personal, as opposed to social, and reversed when the owned product had the potential to alleviate the threat. Implications for both the threat literature as well as the endowment literature are discussed.

For more information, contact: estadenton@gmail.com

Will "Facebooking" Make Us Seek Risks? The Moderating Effects of Types of Social Networking on Risk Attitudes

Kyoungmi Lee, Yonsei University, Korea*

Kiwan Park, Seoul National University, Korea

Hakkyun Kim, Concordia University, Canada

Over the past decade, social networking services have become an integral part of managing relationships with others and understanding the world. By connecting with others online and accumulating "friends," individuals can establish their social networks, thus growing their social capital. Reflecting on such a near-endemic phenomenon of living with social network services (SNS), the extant research in marketing and consumer behavior has investigated several issues regarding social network service, such as the valuation of online networks (Stephen & Toubia, 2010) or word-of-mouth communications (Trusov, Bucklin, & Pauwels, 2009). Less is known, however, about how consumers' experiences with social networking services influence their psychological functioning, such as decision-making styles and risk preferences. By filling this gap, the present research examines downstream influences that the use of social networking

sites may have on consumer decision-making, particularly on risky choices.

We propose that an individual's primary motivational foci of social networking affect their everyday decisions associated with risk (e.g., investment-related or health-related decision-making). For this research, we draw on the literature of social capital and social networks (Adler & Kwon, 2002; Coleman, 1988), paying special attention to a distinction developed by Putnam (2000): *bonding* (which cements connectedness among exclusive and relatively homogeneous groups, resulting in emotional support among members) versus *bridging* (which highlights the creation of new contacts with different groups, resulting in spanning diverse social cleavages). Will the two different foci of approaching social networks moderate people's attitudes toward risk? We hypothesized that the bonding- (versus bridging-) oriented social networking would lead individuals to be more risk-seeking, potentially because individuals believe that they can secure and draw on resources from their "strong and bonded" social networks (cf., "cushion hypothesis" in Hsee & Weber, 1999). To examine this issue, we conducted two experiments.

In Study 1, where 68 undergraduate students participated, we manipulated the motivational foci of social networking (i.e., bonding versus bridging) by having the respondents recall and write about activities that they do on social networking sites. In the bonding condition, respondents were asked to recall activities that were intended to deepen their bonds with other close friends and to reinforce their relationships with them. Then, they were asked to provide a vivid written report of one episode. In contrast, participants assigned to the bridging condition were asked to perform the same tasks, but on activities that were intended to newly link them with others and to create new contacts. Then, on a purportedly separate study, participants were asked about their intentions to consume some potentially harmful food items (e.g., raw meat or genetically modified food), on a scale ranging from 1 = "would not eat at all," to 7 = "would eat a lot." Next, they were asked about their likelihood of engaging in three socially risky behaviors (e.g., "deciding to share an apartment with someone you don't know well"; $\alpha = .64$), on a five-point scale (extremely unlikely/extremely likely). As expected, the results indicated that people with the bonding focus tended to seek risk more than those with the bridging focus: On the food preference task, people in the bonding condition were more likely to consume potentially risky food items than did those in the bridging condition (4.73 vs. 3.93; $F(1, 66) = 14.10, p < .01$). Similarly, on the social risk domain, people in the bonding condition showed a higher likelihood of committing socially risky behaviors, relative to those in the bridging condition (3.36 vs. 2.91; $F(1, 66) = 3.98, p < .05$).

In Study 2, we replicated these findings by varying the participants' actual behaviors on Facebook. Half of the participants were asked to log in to their Facebook accounts, choose some people whom they feel close to (e.g., best friends or family members) on their friend lists, and visit each person's Wall. They were then asked to spend about 10 minutes reading their recent events and leaving them Wall posts. In contrast, the other participants were asked to choose some people whom they had not personally interacted with (e.g., someone from a class or friends' friends). The participants were then asked to indicate how much they would consume harmful food items; they were also asked to allocate funds on the constant sum scale (i.e., 100%) to either stocks (i.e., riskier investment options) or bonds (i.e., less risky investment options) in their portfolios. The results once again confirmed people's tendency to seek risk after the bonding tasks on their own Facebook accounts. Specifically, people who visited close friends' Facebook pages and spent time bonding with them were more likely to consume risky food items, compared to their counterparts (4.58 vs. 3.00; $F(1, 18) = 13.61; p < .01$). The same pattern also emerged in their financial decision-making styles: people who bonded with their close friends on Facebook were more likely to prefer stocks to bonds, compared to people who created new contacts on Facebook (52.92% vs. 38.75%; $F(1, 18) = 3.36, p < .08$), albeit marginally significant.

Taken together, these results provide converging evidence that when activities on social networking sites center on bonding (vs. bridging), consumers tend to make more risky decisions, be it food selection, interpersonal behaviors, or investment decisions. Theoretically, this research can shed light on hitherto unknown influences that experiences with

social networking service unwittingly exert on human decision processes, which could be explained as a result of people's enhanced confidence with their social capital. In particular, given that the subsequent consequences of online social networking can apply to a variety of decision domains (including decisions that are not directly related to social networking sites), this research promises to advance our understanding of consumers' implicit decision-making processes, and the insights gleaned from this research can carry societal significance.

For more information, contact: hkim@jmsb.concordia.ca

Visual Self-Representation in Avatar-Mediated Environments

Paul Messinger, University of Alberta, USA

Xin Ge, University of Northern British Columbia, Canada

Kristen Smirnov, University of Alberta, USA*

Eleni Stroulia, University of Alberta, USA

Kelly Lyons, University of Toronto, Canada

In a world that makes increasing use of online interactions between people, the ways in which people represent themselves in these digital environments become ever more important. Furthermore, improvements in technology allow for customizations in virtual presentations that increasingly mimic real life appearances. In this paper, we examine the relationship between avatars in virtual worlds and the people they represent in terms of their appearance and behavior. To make the best use of these worlds for business, educational or social contexts, consumers and industry practitioners need to be able to suitably interpret the appearance of the avatars that are encountered. Practitioners also need to understand how these self-representations can influence user behavior.

We hypothesize that people (balancing motives of self-verification and self-enhancement) design the image of their avatars to bear similarity to their real selves, but with moderate enhancements. In particular, users will most enhance on those physical attributes that they perceive to be weak in real life. Furthermore, across their different online roles, people's avatars will not differ as much in core identity elements (such as sex and race) as they do in changeable or peripheral elements (such as hair and clothing), or even face and body. We also hypothesize that attractiveness of avatars can affect confidence and extroversion in a virtual world. If a person starts out as unconfident or introverted in the real world, then having an attractive avatar may lead to a greater increase in a person's confidence and extroversion in a virtual world, than if the person starts out already confident and extroverted in the real world.

We report the results of five studies in which we examine and compare several forms of data collected from people who designed their own avatars, from third-party coders who viewed pictures of other people and their avatars, and from people asked to design both casual and business avatars. We found it beneficial to support our findings using a multi-pronged approach involving various methodologies.

In our first study, we measured active users of a virtual world, gathered through an in-world intercept survey in which a systematic random sampling was taken of potential recruitment locations. The demographics of our sample were found to be representative of the demographics of the user population reported by the organization itself.

In our second study, we confirmed the findings of the survey data by gathering sets of avatar/user image pairings, which we had assessed by third party raters. The users that tend to post photos of themselves together with their avatars appear to be somewhat more representative of expert users. The dual measurement system of self-reported data and external coder data provides a more complete and robust picture than previous research.

In our third study, we recruited novices to go through the process of constructing avatars for the express purpose of this project. The goal was to complement the data from both the first study, which were a general population of users in the world, and the second study, which was from a more expert population of users. We asked subjects to make two avatars, a professional and a casual avatar, in order to examine the extent to which people use different looking avatars for different purposes, and what features they tend to change. In this way we covered the different groups using virtual worlds: the general population of virtual world residents, experts, and novices.

Results indicate that participants strike a balance between retaining elements of their real appearance and making enhancements especially enhancing on their less attractive features. And when making different avatars for different roles, people tend to alter physical features that are more peripheral to their core sense of identity. In terms of behavior, people with more attractive avatars than their real selves report that they are more confident and extroverted in virtual worlds than they are in the real world, particularly those who report lower confidence and introversion in the real world.

We then go on to examine the processes that drive avatar development in the first place. In particular, we build on research on assimilation and contrast that has found that individuals assimilate stimulus judgments to a context when there is a moderate discrepancy between the stimulus and context and contrast stimulus judgment from a context when there is an extreme discrepancy between the stimulus and context. Along these lines, avatar design likely serves to bolster the self-concept to the extent that gaps between the avatar and the self are moderate as it allows the individual to assimilate to the attractive avatar features and thereby elevate their self-conception including such features (in the virtual world, and perhaps even the real world). This constitutes the process that we propose underlying the self-enhancement motivation. But avatars that are extremely discrepant could have the opposing effect on the self as the consumer is likely to lower their self-conception upon seeing an excessively idealized avatar, and contrasting this with their real self which may make their own deficiencies in appearance more prominent in their thinking. This represents a boundary condition limiting the extent of self-enhancement, which could be viewed as a form of optimized self-enhancement, whereby a moderately more attractive avatar actually improves self-esteem more than an extremely more attractive avatar. Thus, we suggest the counterintuitive finding that self-enhancement does not increase linearly with avatar attractiveness. An alternate perspective that we also explore is that this boundary condition might even be interpreted as the process underlying part of the motive for self-verification.

In our fourth and fifth studies, to examine this underlying process, we experimentally generate avatars that are either moderately or extremely discrepant with the participant. We then collect perceptual data and self-reports of such variables as satisfaction with the avatar on various dimensions, self-esteem, and impact on enjoyment of the use of the medium of virtual worlds. We also assess behavioral impacts through scenarios in various contexts involving social and business interaction.

We conclude with a summary of our findings and provide guidelines for future researchers working in this field.

For more information, contact: ksmirnov@ualberta.ca

Why a Frying Pan is Better Than Flowers: A Construal Level Approach to Gift Exchange

Ernest Baskin, Yale University, USA*

Cheryl Wakslak, University of Southern California, USA

Yaacov Trope, New York University, USA

Nathan Novemsky, Yale University, USA

The tradition of gift giving is as old as culture itself. From the circular gift exchange formed by the Trobriand islanders (Malinowski, 1922) to today's frenzied holiday shopping, gift-giving rituals have played a central cultural role. Indeed, evolutionary psychologists have suggested that gifts are a natural way to establish, create and maintain order in a group of social beings (Cosmides & Tooby, 1992). Additionally, anthropologists have focused on the role of social exchange in building and maintaining social bonds (Gouldner, 1960; Mauss, 1954). Thus, due to their role in maintaining social bonds, givers in the exchange process have a large stake in making sure their gifts are well received and then reciprocated in order to ensure the continuity of their social relationships.

The importance of gift-giving raises the question of how one decides on the perfect gift. In this research, we look at differences in giver/receiver gift evaluation using construal level theory (CLT) as a framework. We propose that givers conceptualize their choices abstractly due to their high distance from the receiver and the eventual use of the gift. Therefore, they choose gifts higher on desirability attributes to the detriment of attributes higher on feasibility dimensions. Gift recipients, in contrast, conceptualize received gifts more concretely, and care more about feasibility aspects (e.g., how easy is the gift to use?). This difference in construal between givers and receivers creates an important asymmetry between what givers care about and what recipients care about that leads to a mismatch in the kinds of gifts the two parties prefer to give/receive and reciprocate. Our findings also stand in contrast to the typical folk wisdom that givers should always seek to maximize gifts' desirability.

We explored this asymmetry in a series of studies. In Study 1a, we established that being in a gift giving mode activates a more abstract orientation than being in a receiving mode; in line with this proposition, participants asked to write about a time they had to give a gift scored higher on the Behavioral Identification Form (Vallacher & Wegner, 1989), suggesting a more abstract orientation than participants asked to write about a time they had received a gift. Study 1b corroborates the link to construal by showing that gift givers can be induced to give more feasible gifts by giving gifts to people in nearby locations.

Studies 2a and 2b examined tradeoffs people make when giving gifts. By using items that require tradeoffs between abstract/desirability and concrete/feasibility dimensions (e.g., a high resolution 3D videogame that takes 10 hours to learn vs. a poor looking videogame that one can pick up and play), we show that givers evaluated high desirability gifts as better than high feasibility gifts. However, receivers do not exhibit this preference. We assigned participants to either the giver or the receiver role and asked them to evaluate gifts in a variety of domains (e.g. restaurant gift certificates, newspaper subscriptions, etc.). Participants evaluated gifts using a scale consisting of the following questions: "How much did you like the item as a gift?", "How good is this gift?", "How appropriate is this gift?" and "How positive is this gift?" Study 2b extended these findings by eliciting participants' willingness to pay (WTP). Givers reported their WTP for the gift while receivers reported their WTP as if they were buying the item for themselves. While receivers were willing to pay significantly more for desirable gifts than feasible gifts, givers had a significantly higher WTP difference than receivers between high desirability and high feasibility gifts. From this study, we show that there is a mismatch in willingness to pay for desirable goods in that givers are willing to pay a comparatively higher price than receivers for highly desirable gifts. Givers are thus spending extra money that is creating a deadweight loss.

Study 3 examined implications of these differences for social bonds between exchange partners. Participants were told about two different movie offers, one of which was more desirable, but relatively inconvenient (access to view Harry Potter and the Deathly Hallows (HP7): Part 2 online during an inconvenient five-hour window) and the other less desirable, but more convenient (access to view the less novel and widely available HP7: Part 1 online during a convenient 30-day window). Participants believed they were either giving a gift to, or had received a gift from, another participant in the study. As predicted, givers preferred to give other participants in the study the more desirable/less

convenient HP7: Part 2, but receivers preferred to receive the less desirable/more convenient HP7: Part 1. More importantly, givers thought that if they picked HP7: Part 2, receivers would be more likely to reciprocate their gift in the future. Receivers, on the other hand, were willing to reciprocate both gifts equally suggesting that their opinions of the giver were not affected by the choice of gift. Instead, givers are mistaken in their prediction that desirable gifts will increase social bonds.

Since gift giving is primarily about relationships, we are conducting future research to examine how various gifts change the relationship between gift givers and gift receivers and how people's awareness of biases in selecting gifts may improve their relationship with the other person. Overall, the results of this research suggest that givers may save a lot of trouble by putting themselves in the shoes of the receivers and think about the kind of gift they would prefer to receive. Marketers may also benefit from our finding that feasibility is an important aspect of gift liking by changing their product messaging. Thus, we aim to show that conventional wisdom of always maximizing gift desirability, rather than considering other gift features, may be incorrect.

For more information, contact: ernest.baskin@yale.edu

5.7 Conversations: Motivation

Room: Mesquite 1

Amar Cheema, University of Virginia, USA

Siegfried Dewitte, K.U. Leuven, Belgium

Juliano Laran, University of Miami, USA

Ying Zhang, University of Texas at Austin, USA

6.1 Symposium: On the Psychology of Mindsets in Consumer Behavior: Antecedents and Consequences for Choices and Switching

Room: Four Seasons Ballroom 1

Chair: Eva Buechel, University of Miami, USA

Why We Buy More: Understanding the Relationship between Consumer's Mindset and the Choice Context

Kelly Goldsmith, Northwestern University, USA*

Jing Xu, Peking University, China

Ravi Dhar, Yale University, USA

Although much research has examined consumer choice in isolation (e.g., choosing *which* of several brands to buy in a single product category), real world consumer choice also often involves making a series of *whether* or not to buy decisions among complementary products that belong to adjacent categories, and relate to the same higher order goal (e.g., choosing if one should buy toothpaste, mouthwash, floss, and/or whitening strips in the oral care aisle). While many firms are extending their brands beyond their original product category and into adjacent categories (e.g., *The Wall Street Journal*, Feb 2007), little academic research to date has explored what factors influence consumers' decisions as they simultaneously consider whether or not to buy products in these shopping contexts.

This paper presents a goal theoretic framework to understand how the consumers' mindset, whether abstract or concrete, influences the extent to which they are likely to make purchases from adjacent product categories. Specifically, we examine the number of different products purchased from adjacent categories in an abstract mindset as compared to a more concrete mindset. Building on the recent literature on goal systems and mindsets, we propose that consumers in a more abstract mindset will be more likely to focus on pursuing the higher order goal (e.g., oral care) and, in line with the cognitive properties of goal structures, this higher order goal focus will increase interest in all means serving that goal (e.g., toothpaste and mouthwash). Conversely, consumers who consider such purchase decisions in a concrete mindset will be more likely to consider the lower level sub-goals serviced by each product (e.g., teeth cleaning and breath freshening) in isolation, without reinforcing how the different products may all ultimately service the same higher order goal. As a consequence, consumers will be comparatively less inclined to purchase products from adjacent categories in a concrete mindset as compared to an abstract mindset.

This hypothesis is tested in five studies. In the first two studies, participants' completed a mindset manipulation then moved on to a shopping task where they were given the opportunity to purchase any products of their choosing from a set of twenty adjacent products, formatted to look like a standard "aisle" (study 1a: hair care, study 1b: oral care). In support of our hypothesis, respondents placed in an abstract mindset made significantly more adjacent category purchases (hair care: $M_{concrete} = 4.5$; $M_{abstract} = 6.4$; $p = .04$; oral care: $M_{concrete} = 5.6$; $M_{abstract} = 6.0$; $p = .02$). Further, study 1b helps rule out a heightened variety seeking motive in the abstract mindset as alternate account for the pattern of results by demonstrating that chronic individual differences in the need to seek variety do not moderate the observed effect.

The remaining experiments test for the goal systems account by demonstrating relevant boundary conditions. Specifically, study 2 demonstrates that an abstract mindset increases purchase likelihood only of those items that serve as complementary means to achieve the same higher order goal (hair care: $M_{concrete} = 1.9$; $M_{abstract} = 3.4$; $p = .001$), as opposed to items that serve as means to achieve different higher order goals (additional items: $M_{concrete} = 1.2$; $M_{abstract} = 3.7$; $p > .3$). Experiment 3 builds on these findings by testing if how the products in the choice set relate to one another moderates the observed effect of mindset. In line with our goal theoretic framework, we predict that consumers'

mindset and how the products in the set relate to one another (e.g., substitutes vs. complements) will have an interactive effect on the number of products purchased. We argue this occurs because just as an abstract mindset focuses consumers' attention on the relevant higher order goal when faced with a set of products from adjacent product categories, when faced with a set of products from the same product category (e.g., beverages) an abstract mindset will still focus consumers on the relevant goal in that context (e.g., refreshment). However, in the context of substitutable products, a focus on the relevant goal will make salient the fact that additional means to that goal are not required or necessary for goal attainment (e.g., one beverage is enough to sate thirst). Conversely, in a concrete mindset, when representations are more contextualized and differentiated, the relationship of these products to the relevant goal will be less salient. As a result, we argue consumers in a concrete mindset will be comparatively more inclined to purchase additional products from substitutable product sets (as compared to those in an abstract mindset).

Studies 3 and 4 test for the predicted interaction. Specifically, participants were presented with either a set of products from adjacent product categories that complement each other and serve the same higher order goal (similar to the product sets used in Experiments 1a and 1b), or they were presented with a set of substitutable products within the same product category, which serve the same lower order goal (e.g., a set of beverages that all serve the goal of refreshment). In line with our framework and the results observed thus far, we observe that an abstract mindset increases the number of products purchased only among products from adjacent categories that complement each other and serve the same higher order goal (stationary items: $M_{concrete} = 7.6$; $M_{abstract} = 9.2$; $p < .01$). Conversely, when presented with a set of substitutable products from the same product category, an abstract mindset reduced the number of products purchased as compared to a concrete mindset (beverages: $M_{concrete} = 5.7$; $M_{abstract} = 4.9$; $p = .08$). The predicted interaction was highly significant ($p < .001$). Further, study 4 replicates this interaction in an actual consumer setting where participants made purchases with their own money (for the simple effects and the interaction: all p 's $< .01$).

For more information, contact: kelly-goldsmith@kellogg.northwestern.edu

The Role of Mental Representation in Choice Difficulty

Eunice Kim, University of Toronto, Canada*

Uzma Khan, Stanford University, USA

Ravi Dhar, Yale University, USA

Choice is a fundamental aspect of most consumer buying situations. While the act of choice has many positive aspects, it can also induce difficulty in a decision as it entails forgoing some options while selecting others (Botti and Iyengar 2004). Some choices, however, are more difficult than others. Past research has identified several drivers of choice difficulty including the number, size and nature of the tradeoffs presented by the options (Luce 1998; Nowlis, Dhar, and Simonson 2010). However, within a specific tradeoff structure and set of options, choice difficulty is generally perceived to be a stable characteristic of the choice-set.

Contrary to the view that difficulty is an inherent property of the choice-set, we propose that choice difficulty can depend on how the choice options are mentally represented. Building on prior finding that the same stimuli can be construed at different levels of abstraction (Trope, Liberman and Wakslak 2007), we propose that differences in the mental representation can impact the difficulty of choosing among the same options. To illustrate our proposition, we focus on choices among comparable versus non-comparable options, as non-comparable choices (e.g., a DVD vs. a box of chocolates) are believed to be more difficult than comparable choices (e.g., a choice between two boxes of chocolates; Bettman and Sujan 1987; Johnson 1984). Using this as an instantiation of choice difficulty, we posit that the difficulty inherent in comparable and non-comparable choices can shift depending on the level at which these choices are

mentally represented: choosing among comparable options can become more difficult than choosing among non-comparable options as the representation of the choice options moves from concrete to more abstract. The effects arise as an abstract (concrete) representation facilitates a high-level (low-level) criterion and therefore makes non-comparable (comparable) choices easier but hurts comparable (non-comparable) choices by inhibiting accessibility of a low-level feature-based (a high-level) criterion. We report four studies to illustrate how choice difficulty can shift with different mental representations of the same choice.

Study 1 provides support for our main proposition by examining choice difficulty. Participants either wrote about *why* one studies (abstract mindset) or *how* one studies (concrete mindset). Half of the participants in each mindset condition were shown two non-comparable options (a box of chocolates or video games) while the other half were shown two comparable options (two video game bundles). All participants then rated the difficulty of choosing. As predicted a non-comparable (vs. comparable) choice was seen as being more difficult in a concrete mindset ($M = 3.4$ vs. $M = 2.0$; $p < .05$) whereas the comparable (vs. non-comparable) choice was seen as being more difficult in an abstract mindset ($M = 2.2$ vs. $M = 3.2$; $p < .05$).

Prior research finds that an increase in decision difficulty generally corresponds to an increase in choice deferral (Dhar 1997a; Dhar and Simonson 2003; Tversky and Shafir 1992) and a decrease in decision satisfaction (Valenzuela, Dhar, and Zettelmeyer 2009; Zhang and Fitzsimons 2001). Thus, we predict that a non-comparable (vs. comparable) choice will result in greater deferral and lower decision satisfaction in a concrete mindset, whereas a comparable (vs. non-comparable) choice will result in greater deferral and lower decision satisfaction in an abstract mindset.

Study 2 tests the effect of mindsets on choice deferral. Participants in abstract and concrete mindsets made a choice between either non-comparable (\$20 Starbucks gift card and \$20 DVD) or comparable options (two different \$20 DVDs). The deferral option was presented as a cash option worth half the value. As predicted, in the abstract mindset, the proportion of the no-choice option was higher for the comparable (vs. non-comparable) options (50% vs. 20%; $p < .05$). Whereas in the concrete mindset, proportion of no-choice option was higher for the non-comparable (vs. comparable) options (47% vs. 21%; $p = .08$).

Study 3 examines the effect of mindsets on decision satisfaction. In abstract or concrete mindset, participant either chose between two comparable (Blockbuster or Netflix gift card) or two non-comparable options (Blockbuster or iTunes gift card). Their choice and decision time was recorded. The non-comparable (vs. comparable) choice resulted in lower decision satisfaction in the concrete mindset ($M = 6.3$ vs. $M = 7.8$; $p < .01$) whereas comparable (vs. non-comparable) choice led to lower decision satisfaction in abstract mindset ($M = 7.4$ vs. $M = 6.5$, $p < .05$). Also, participants took longer to choose between the non-comparable (vs. comparable) options in a concrete mindset ($M = 9.8$ seconds vs. $M = 7.9$ seconds, $p < .05$) but the pattern reversed in the abstract mindset ($M = 8.1$ seconds vs. $M = 10.3$ seconds; $p = .08$).

Finally, study 4 provides support for the underlying mechanism by explicitly providing individuals either with a high-level holistic criterion or a low-level concrete decision criterion. In an abstract providing individuals with a high-level criterion had no significant effect on decision difficulty suggesting that they were already deciding based on a high-level criterion but giving them low-level criterion did significantly influence difficulty. On the other hand, in a concrete mindset providing individuals with a low-level criterion had no significant effect but providing them a high-level criterion did.

Together, our findings enhance the current understanding of the difficulty in making choices. While existing literature has shown that for a particular choice make up, the level of difficulty experienced in that decision is at a certain fixed

level, we show that the choice difficulty experienced in making a choice is not a stable characteristic of that choice, but rather varies as a function of its representation level.

For more information, contact: eunice.kim@rotman.utoronto.ca

Mental Energy and Preference for Hedonic and Utilitarian Experiences Following an Initial Experience

Juliano Laran, University of Miami, USA

Eva Buechel, University of Miami, USA*

The number of experiences consumers can and often engage in is unlimited and associated with differential mindsets. We investigate how hedonic experiences, which elicit a mindset of seeking pleasure, influence a consumer's likelihood of seeking a utilitarian experience, which elicits instrumentality and functionality (Batra and Atola 1990; Dhar and Whertenbroch 2000; Hirschman and Holbrook 1982; Stalichevitz and Myers 1998), and vice-versa. For instance, after being invited for an afternoon ride in a Porsche, is a consumer more likely to eat out at a fancy restaurant (i.e., a hedonic experience) or to go home and have a homemade meal (i.e., a relatively more utilitarian experience)?

Extant research provides support for both alternatives. Some literature on self-perception, goal pursuit, and habitual behavior suggests that a current experience may lead consumers to seek subsequent experiences that are similar on the extent to which they are hedonic or utilitarian (Bem 1972; Kivetz, Urminsky and Zheng 2006). Alternatively, some literature on satiation, goal fulfillment, and variety seeking suggests that a current experience may lead consumers to seek dissimilar subsequent experiences (Hetherington, Rolls, and Burley 1989; Fishbach and Dhar 2005; McAlister and Pessemier 1982). We demonstrate that several situations in which consumers prefer a similar type of experience, or to switch, can be explained by one fundamental mechanism: the amount of mental energy, or resources, a consumer perceives to have available at the moment of choosing the subsequent experience. When consumers do not perceive to have a high level of energy, they will prefer similar experiences (i.e., hedonic experience after having a hedonic experience, utilitarian experience after having a utilitarian experience). When consumers perceive to have a high level of energy, they will prefer dissimilar experiences (i.e., a utilitarian experience after having a hedonic experience, a hedonic experience after having a utilitarian experience). The reasoning behind this prediction is that switching involves changing mindsets and perspectives, which requires cognitive effort. We present 5 studies to support our conceptualization.

Study 1 manipulated resource availability with a common manipulation used to energize people's cognitive and physical systems (Albarracín et al. 2008). After the priming manipulation, participants imagined a hedonic consumption experience and were asked to rate the attractiveness of either a hedonic or a utilitarian experience. When rating a hedonic (i.e., similar) experience, participants who had not been energized considered it more attractive than participants who had been energized. When rating a utilitarian (i.e., dissimilar) experience, participants who had not been energized rated it less attractive than participants who had been energized.

Study 2 tests how the framing of subsequent experiences as utilitarian or hedonic can change perceptions of difficulty associated these experiences, depending on whether the initial experience is similar or dissimilar to the framed experience. When a charity event was framed as utilitarian, participants who perceived to have high energy levels (vs. neutral) were willing to dedicate more hours to charity after having had a hedonic experience, but fewer hours after having had a utilitarian experience. When charity was framed to be hedonic, participants who perceived to have high energy levels (vs. neutral) were willing to dedicate fewer hours to charity after having had a hedonic initial experience, but more hours after having had a utilitarian experience.

Study 3 extends the findings to a choice between a utilitarian and a hedonic experience, depending on an initial experience that is hedonic or utilitarian. Participants were led to believe that they would have a high amount of energy available (i.e., they would be tasting an energy drink) and were asked to imagine either a utilitarian or a hedonic experience. They were then asked whether they wanted to watch a utilitarian or a hedonic video in a subsequent task. After imagining a utilitarian experience, participants who had not been energized were more likely to choose a utilitarian experience, while participants who had been energized were more likely to choose a hedonic experience. After imagining a hedonic experience, participants who had not been energized were more likely to choose a hedonic experience, while participants who had been energized were more likely to choose a utilitarian experience. Providing process insight, participants who choose a dissimilar experience reported greater difficulty in thinking about the experience than participants who chose a similar experience. Study 4 uses a different approach to investigate the role of mental energy. This study measured participants' need for cognition, which assesses individuals' tendency to engage in and enjoy thinking (Cacioppo and Petty 1982). In addition, half of the participants memorized an eight-digit number to generate cognitive load, while the other half memorized a two digit-number. All participants then had a utilitarian experience and were asked to choose between a hedonic and a utilitarian subsequent experience. Participants with low need for cognition chose a similar experience, independently of whether they were under low or high cognitive load. Participants with high in need for cognition choose a dissimilar experience under low cognitive load. Under high cognitive load, however, participants chose a similar experience. The available mental energy mediated the extent to which people were willing to choose a similar or a dissimilar experience.

For more information, contact: buechel@miami.edu

Being of Two Minds: Switching Mindsets and Self-Regulation

Ryan Hamilton, Emory University, USA

Kathleen D. Vohs, University of Minnesota, USA

Anne-Laure Sellier, New York University, USA

Tom Meyvis, New York University, USA*

Mindsets consist of sets of mental processes that result in a general disposition or readiness to respond in a certain manner. In a given situation, activating one mindset instead of another can change the preferences people have, the judgments they form, the decisions they make, and their satisfaction with the outcomes of these decisions. Mindsets have proven to be especially important for explaining human judgment and decision making, such that adopting specific mindsets has been shown to help ameliorate common decision biases. For example, activating a counterfactual mindset minimizes the confirmation bias in group decision making (Kray & Galinsky, 2003), activating a transactional mindset (e.g., an "everything must go" mindset for sellers or an "I've absolutely gotta have it" mindset for buyers) diminishes or even reverses the endowment effect (Mandel, 2002), and activating a probabilistic mindset (e.g., by prompting people to estimate probabilities or ratios) leads to less intuitive, more rational decision making (Rottenstreich & Kivetz, 2006). Conversely, the activation of certain mindsets can also magnify decision biases. For example, people with a high degree of confidence in their own personal objectivity may adopt an "I think it, therefore it must be true" mindset, which can lead to increased gender discrimination (Uhlmann & Cohen, 2007).

A synthesis of previous research suggests that optimal decision making may necessitate the use of more than one mindset. In fact, optimal performance may require the serial activation of different mindsets. Consider the influence of collectivist and individualistic mindsets on group performance. There are tradeoffs in terms of which mindset is best insofar as each is related to different benefits. For instance, collectivistic values are associated with strong norms for

cooperation (Wagner, 1995) and positive, salient group identities (Chatman, Polzer, Barsade, & Neale, 1998). Yet, there are clear advantages to having an individualistic mindset too: groups of people who were induced to activate individualistic mindsets tend to be more creative than groups who were encouraged to activate collectivist mindsets (Goncalo & Staw, 2006). Thus, if the tasks facing an organization require both creativity and cooperation—not an uncommon pair of demands—then successful performance might require regular switching between collectivist and individualistic mindsets.

Mindset theories rest on the assumption that people are not locked into a single *modus operandi* but are able to switch mindsets depending on the nature of the task they face. Unlike a strong preference such as handedness, people seem able to adopt different mindsets depending on situational demands. Although there is ample evidence that people can and do switch mindsets, surprisingly little is known about how such switching takes place. In the current paper, we propose that switching mindsets is an act of executive control and, as such, is governed by the same psychological mechanism that enables other forms of executive functioning. Since other acts involving executive functioning are known to consume regulatory resources, leaving people more likely to fail at subsequent self-regulation, so should switching mindsets if it too is an act of executive functioning. As such, the benefit of approaching a problem from multiple perspectives may be counteracted by a subsequent reduction in self-regulatory performance.

In order to provide converging evidence in support of a general theory of mindset switching, we tested our hypothesis in four experiments across four types of mindsets, using four different measures of self-control. In Experiment 1, participants were encouraged to think abstractly, think concretely, or alternate between abstract and concrete perspectives. The latter was the crucial condition because it required mindset switching. Next, participants were asked to consume a healthy but bad-tasting drink, an act which requires self-regulation. We predicted that participants who switched mindsets would drink less of the unpleasant liquid than those who maintained a consistent mindset. In Experiment 2, participants made choices in a thorough and comparative style consistent with an assessment mindset, in a rapid and non-comparative style consistent with a locomotion mindset, or by switching between the two decision making modes. Subsequently, participants were given the goal of suppressing their natural emotional responses to a humorous video. Overcoming incipient emotional reactions is a core component of self-regulation and therefore we expected it to be affected by the mindset manipulation. In particular, we predicted that participants who switched between assessment and locomotion mindsets would be less able to suppress their emotions than those who maintained a consistent mindset.

In the third experiment, bilingual participants completed a personality questionnaire in English, in the other language they speak, or by alternating languages. Following the questionnaire, they squeezed a handgrip, an act that requires physical and mental stamina not to release the handgrip device. Building on literature showing that speaking a particular language activates an associated language-mindset (Stapel & Semin 2007; Whorf, 1957), we predicted that switching languages would impair participants' handgrip stamina relative to those who completed the questionnaire in a single language. Finally, in Experiment 4, participants played a game in which the scoring was designed to activate an approach mindset (by rewarding correct answers while minimizing the punishment of incorrect answers), an avoidance mindset (by providing only a small reward for correct answers but severely punishing incorrect answers), or to facilitate switching between approach and avoidance mindsets (by alternating how points were distributed at different phases). Following the game, participants worked on an unsolvable puzzle, which is a persistence task that requires self-regulation to override the desire to quit the challenging task. We predicted that participants who switched mindsets would give up sooner than participants who maintained a single mindset.

For more information, contact: tmeyvis@stern.nyu.edu

6.2 Individual Papers: Can't Touch This: Self-Control

Room: Four Seasons Ballroom 2

Chair: Antonia Mantonakis, Brock University, Canada

Exposure to Food Temptation Improves Children's Resistance to Similar Food Temptations

Aiste Grubliauskiene, University of Leuven, Belgium*

Siegfried Dewitte, University of Leuven, Belgium

Luk Warlop, University of Leuven, Belgium

If sweets are present at home, do children consume more of them? The intuitive answer is yes. We will show, however, how pre-exposure to food temptation actually decreases the consumption of attractive but unhealthy products. Being exposed to food temptation without consuming it has been already shown to reduce adults' desire and consumption in a subsequent tempting situation (Dewitte, Bruyneel and Geyskens 2009; Geyskens, Dewitte, Pandelaere and Warlop 2008). So far, there has been little research into the effect of pre-exposure in children. Demonstrating the pre-exposure effect in children would have important implications for theories on the emergence of self-regulation (e.g. Egan, Santos and Bloom 2007) and for public policy, which often assumes that restricting access to unhealthy food is the best way to curb obesogenic consumption (Wardle 1990).

Some studies have demonstrated that food temptation availability reduces self-control in children. Mischel, Ebbesen and Zeiss (1972) showed that reward salience decreased children's willingness to wait for a larger reward. A symbolic – less salient - reward (i.e. pictures) increased the willingness to wait (Mischel and Moore 1973). A symbolic mode of presentation encouraged children to think about cognitive qualities (Metcalf and Mischel 1999) and thus facilitated self-control. However, other findings suggest that self-control improves with temptation salience, because then people (at least adults) feel conflict and invest efforts to resist (Myrseth, Fishbach and Trope 2009, Zhang, Huang and Broniarczyk 2009). Therefore a possible explanation for why a symbolic temptation did not, but a physical temptation did increase self-control in adults (Geyskens et al. 2008), might be the failure to construct a symbolic temptation as sufficiently tempting to experience conflict during pre-exposure. In our study, we made the symbolic representation much more vivid to test if this increased salience leads to increased self-control, even without exposure to the physical temptation.

Obviously, the way temptation is constructed in the mind influences self-control (Mischel and Moore 1973). After pre-exposure to temptation in a situation where consumption is not appropriate, people seem to change their perception of the temptation in order to make the temptation less attractive and thus easier to resist (Grubliauskiene, Dewitte, and Warlop, in prep.). In one study, after being exposed to a sweet temptation, people reduced the importance of sweetness. Thus re-construction of essential temptation dimensions may support the subsequent resistance to temptation. Aiming to resist a temptation, 7 – 11 year old children have been shown to employ simple distraction strategies, such as covering their eyes, but they still do not use cognitive distractions that transform a temptation (Demetriou 2000). Lack of cognitive skills should not prevent successful self-control after pre-exposure if self-control processes are rather simple and automatic. Indeed, it has been shown that pairing positive pictures with a no-go task lowers picture evaluations (Veling, Holland and Knippenberg 2008). Even 4-year-olds decrease preferences for an unchosen option (Egan et al. 2007). This paper attempts to show that children, while still lacking sophisticated self-regulation skills, are able to automatically change the meaning of products and thus resist a temptation after pre-exposure to it.

In two experiments, we exposed participants to temptation in two successive phases. We manipulated the availability of

the temptation (physical or symbolic or not available) during pre-exposure in the first phase. To ensure a self-control conflict, children had to construct a flower from candy (physical pre-exposure condition) or construct a flower from Lego® bricks while a photo with a child happily eating chocolate was present (symbolic pre-exposure condition). In the control condition, children had to construct a flower from Lego® bricks. The second task differed across studies. In Study 1, children (7 – 11) tasted a different type of candy for evaluation, and the quantity consumed served as a measure of children's self-control. In Study 2, children (7 – 8) had a choice between a healthy product (strawberry) and an unhealthy product (chocolate) that were presented in pictures. We investigated differences in fixation duration and fixation number on certain product (Sutterlin, Brunner, and Opwis 2008) as a measure of preference.

In Study 1, the effect of gender was marginally significant which is common in eating experiments, with boys eating more than girls. As expected, there was an effect of pre-exposure to temptation on candy consumption. Simple effects showed that both physical and symbolic temptation reduced the consumption as compared to a control condition. Findings from Study 2 suggest that physical and, to a lesser extent, symbolical exposure affects automatic preference. In the physical temptation condition, fixation duration on a healthy product was longer and fixation number on a healthy product was higher than in a control condition. In the symbolically presented temptation condition, the same effects were marginally significant. Results suggest that healthy food gains attractiveness after exposure to temptation. There were no significant effects for unhealthy products.

Children's self-control increases after pre-exposure to a real or symbolically presented temptation, thereby replicating findings in adults, and suggesting that this type of self-regulation emerges early on in life. Eye-tracking measures show that pre-exposure to a real or symbolically presented temptation increases the attractiveness of healthy options whereas it does not affect the attractiveness of unhealthy options. This pattern may explain why pre-exposure leads to low vice consumption in pre-exposure condition.

For more information, contact: Aiste.Rutkauskaite@econ.kuleuven.be

Postponing Pleasure as a Self-Control Mechanism

Kelly Haws, Texas A&M University, USA

Juliano Laran, University of Miami, USA

Michael Lowe, Texas A&M University, USA*

Early research in self-control suggests that delay or postponement of a pleasurable product or experience is a commonly used self-control technique (Hoch and Loewenstein 1991). However, despite the apparent pervasiveness of this behavior, there is little research examining exactly how this self-control strategy might be fruitfully utilized by consumers. In food-based studies, Mead and Patrick (2011) find that postponing consumption, rather than satiation or deprivation, can indeed result in improved self-control. This is attributed to allowing a more reflective, rather than impulsive, mindset to dominate one's thoughts, consistent with the suggestions of Hoch and Loewenstein (1991) as well as the delay of gratification paradigm advanced by Mischel and colleagues (e.g., see Metcalfe and Mischel, 1999).

Interestingly, the efficacy of delay strategies may manifest itself in different ways. For example, delay may be used as a means of decreasing the immediate desire of the temptation, which in turn can reduce its attractiveness. Further, postponement of consumption may mean that the consumer is able to anticipate how satisfying this eventual consumption will be, and therefore derive additional pleasure from the anticipation of the future consumption experience. From a practical perspective, delays may be used to postpone purchases until sufficient funds are available to make the purchase through savings behavior.

Despite these different potential benefits of delaying consumption, it is important to examine the circumstances under which delays may be more or less effective. There are different ways that delay or postponement strategies can be implemented, and their efficacy may well depend upon the person or the situation. We examine individual differences in self-control with respect to the use of a delay strategy vs. no delay strategy. In addition, we look at the nature of the delay itself, showing differences in effectiveness based on a combination of goal activation and concrete vs. abstract level of the delay plan. We also examine the potential for delay as a self-control strategy to backfire. For example, Wilcox et al. (2009) demonstrate that the mere presence of a healthier food option (among less-healthy alternatives) may undermine self-control by producing a vicarious fulfillment of personally held self-control goals. Therefore making the option of postponement salient may lead to enhanced self-control, or it may actually lead to more indulgent decisions. These issues are explored and tested in a series of four studies.

In study 1, participants were presented with a consumption scenario involving either postponement or immediate consumption of a hedonic product. In addition, half of the participants read an article on conservative financial budgeting while the remainder read an unrelated article. After a short filler task, participants were asked to allocate a fixed amount of money to spend on either necessities or luxuries. The results show that those who were exposed to only one of the two self-control related primes (delay or budgeting) allocated significantly less towards luxuries. However, those exposed to both budget *and* delay primes, or to neither prime, allocated much more of their funds to luxuries. The simultaneous salience of delay and budgeting may actually feel like deprivation, leading to a sort of reactance manifesting as overindulgence (Vohs and Heatherton, 2000).

While study 1 examined a general delay strategy, study 2 was designed to examine differences in delay type. All participants in study 2 were presented with a hypothetical consumption postponement scenario. In this case, the proposed delay was framed as either a general, ambiguous delay or a delay that involved considering the specific details of the future purchase and consumption occasion. Again following a filler task, a similar resource allocation task as used in study 1 was completed. Ultimately, the specific delay condition resulted in less money allocated to luxuries than the general delay. However, the specific delay helped those individuals low in trait self-control significantly more than those naturally high in self-control. It appears that the more detailed a postponement plan is, the more it aids self-control.

Aspects from studies 1 and 2 were studied in combination in study 3 to examine the interaction between delay strategies and salience of goals. Specifically, study 3 tested both delay specificity as well as budget priming. Participants read either a general or specific delay scenario as well as an article about budgeting or an unconnected topic. After a set of unrelated questions, the allocation task was again administered. Consistent with study 1, results show that participants in the general delay condition actually allocated more to luxuries when thinking about their budget. However, in the specific delay condition, those in a budget mindset demonstrated much more financial restraint. Perhaps because it is more concrete and future-focused, a specific delay is actually a complementary self-control strategy for those in budgeting mindsets.

In study 4, the framing of the product itself is examined as a boundary condition. Participants were presented with a hypothetical purchase scenario framed in either a utilitarian or hedonic manner. The scenarios also suggested either a general or specific delay prior to purchase. After a filler task, participants were asked what their own decision would be in the situation – to buy now or to postpone. Products framed hedonically were actually much more likely to be postponed, and this was especially true when the delay was specific. This may be partly because participants reported greater expected benefits from the anticipation involved in waiting for a hedonically framed product.

Delaying consumption does appear to be a beneficial self-control strategy. This research supports and extends this theory while exploring the conditions under which it holds. In addition, limitations as well as some potential moderators and relevant individual-level differences are identified. The results clarify conditions under which postponing consumption may be an effective self-control strategy for consumers and suggests future research to further understand the role of delay type, anticipation, goal salience, and other factors.

For more information, contact: mlowe@mays.tamu.edu

Understanding the "Self" in Self-Control: The Effects of Connectedness to Future Self on Far-Sightedness

Oleg Urminsky, University of Chicago, USA

Daniel Bartels, Columbia University, USA*

Kerry Milch, Columbia University, USA

The exercise of self-control involves setting priorities and adhering to plans, even in the face of immediate temptations. Many decisions requiring self-control involve trading off consumption or happiness in the present or immediate future with consumption or happiness in the distant future. We posit that a crucial variable in such decisions is how a person views her distant future self (i.e., as a different person from her current self or as fundamentally the same person). In three studies, we show that how people view their future selves influences intertemporal preferences.

A decision maker is more closely linked to the person she will be tomorrow than to the person she'll be in 10 years, in terms of self-defining psychological properties, such as beliefs, values, and ideals. For this reason, she may prefer to allocate benefits to her more connected, sooner self at the expense of her less connected, later self. We propose that when people feel less psychologically connected to their future selves (e.g., because they foresee significant changes to the self), they will be less motivated to forego immediate benefits to provide long-term benefits for that future self. We find that people make "short-sighted" decisions over periods of time in which they anticipate the greatest changes in specifically their identity (holding constant changes in their life circumstances). People who feel disconnected from the future self are more likely to choose so-called "vices" (options for which the short-run utility exceeds the long-run utility) over so-called "virtues" (options for which the long-term utility exceeds the short-run utility), and they engage in less responsible financial planning. They also tend to dehumanize that future self and indicate less willingness to take on burdens in the present to mitigate health risks in the distant future.

In Study 1, undergraduate participants read either that identity radically changes in early adulthood (especially during the college years), inducing a low degree of connectedness to their future self, or they read that the core features of one's identity are fixed in early childhood (and stable during college), inducing high connectedness to their future self. Participants were more likely to choose a lottery for a bookstore over bakery gift-certificate (e.g. virtue over relative vice) in the high-connectedness condition (after reading about the stability of their identity) than in the low-connectedness condition (after reading about how they would change).

In Study 2, we asked college seniors, who were about to graduate, how difficult it would be to generate either 2 or 10 reasons why their identity would not change as a result of college graduation. Participants in the 2-reasons condition found the task easier and therefore inferred that their identity would be stable over time, yielding a greater sense of connectedness to their future self than for participants in the 10-reasons condition. The more highly connected participants in the 2-reasons condition then indicated that they would allocate more of their resources to those budgetary categories that they themselves separately judged to be the most responsible uses of money, suggesting a higher motivation to provide for the future self.

In Study 3, we brought participants into the lab in mid-December and asked them to list any New Year's resolutions they had or would like to make after having induced feelings of high or low connectedness. Then, about 5 months later, we re-contacted them and, for each resolution they had listed, we asked them to report their own subjective success in maintaining the resolution. We also asked them to assess whether each of their resolutions were more far-sighted and practical vs. more about the present and enjoyment-related. Note that compared to present enjoyment-related resolutions (e.g., become more sociable, take a vacation, etc.) resolutions that are far-sighted and practical in nature (e.g., eating more healthily, getting further education or job training, etc.) are often burdens that people shoulder in the present in order to benefit the future self, and as such, they are harder to maintain. Participants in the high connectedness condition chose more far-sighted resolutions, on average. Controlling for the types of resolutions made, the participants in the high-connectedness condition report more success in keeping their New Years resolutions than participants in the low connectedness condition. This effect is particularly driven by the high connectedness participants' ability to sustain effort on their far-sighted, hard-to-maintain resolutions.

Study 4 was designed to learn more about how people view their future selves and how this relates to their willingness to engage in preventive health measures. We investigated how connectedness to a future self relates to the kinds of traits people ascribe to their future selves, and how this in turn impacts people's motivation to incur immediate costs for the sake of improved odds of long-term health. We found participants who felt disconnected from their future selves tended to "dehumanize" the future self. Using Haslam & Bain's (2007) measures of "human nature" traits, we found that people who felt disconnected from their future selves tended to characterize the future self as rigid, inert, and lacking in emotional warmth and depth. High connectedness between present and future selves and low dehumanization of the future self each predicted people's willingness to endure pain in the present (e.g., from a diagnostic procedure) in order to reduce the likelihood of negative health states (e.g., joint pain) experienced in old age.

Across these studies, we demonstrate that how people think of our future selves plays a fundamental role in how we approach the kind of tradeoffs represented by self-control dilemmas – the tradeoff between immediate temptations and long-term benefits. We will also discuss how the effect of connectedness on self-control behaviors relates to other factors implicated in such choices, including salience of future outcomes, guilt and justification.

For more information, contact: oleg.urminsky@chicagobooth.edu

When Temptations Collide: More Temptations Are Less Desired

Kuangjie Zhang, INSEAD, Singapore*

Steven Sweldens, INSEAD, France

Monica Wadhwa, INSEAD, Singapore

Consumer desire is the motivating force underlying much of contemporary consumption (Belk, Ger, and Askegaard 2003; Loewenstein 1996). Common intuition suggests that more temptations are more desirable and thus consumers should be more tempted by a package of multiple temptations than a single temptation. In line with common intuition, marketers often seek to lure consumers with multiple temptations. For example, advertisements for vacation packages often feature multiple vacation experiences and reward programs often offer multiple benefits to attract consumers.

However, the present research argues that increasing numbers of temptations can ironically reduce the strength of consumers' desire for immediate gratification. We derive our conceptualization from research on mental imagery. Specifically, this stream of research suggests that the strength of consumer desire for immediate gratification is

determined by the vividness of mental imagery related to the temptations (Kavanagh, Andrade, and May 2005; Metcalfe and Mischel 1999). Yet, mental imagery consumes a resource that is limited, which restrains consumers' ability to create vivid mental images of multiple objects simultaneously (MacInnis and Price 1987; Shiv and Huber 2000). Drawing upon this line of reasoning, we propose that the vividness of imagery with which consumers can elaborate on the temptation(s) deteriorates as the number of temptations increases. This leads to our hypothesis that multiple temptations as compared to a single temptation can reduce the strength of consumers' desire for immediate gratification.

We examined our aforementioned hypotheses in five studies. In Study-1, we examined our main hypothesis related to the temptations-collide effect. Specifically, we employed a mouse-click task (Custers and Aarts 2005), which has been used to measure the strength of desire. After completing several unrelated questionnaires, participants learned that the study was almost over and would be followed by one more task. They were further told that subsequent to this last task they would receive a lottery ticket entitling them to win a reward. Half of the participants were told that the reward was a movie ticket (single-temptation condition), whereas the others learnt that the reward was a movie ticket plus a music CD (multiple-temptation condition). The movie ticket and the music CD were pretested to be equally desirable. Participants then completed the mouse-click task, wherein they had to click on the computer screens according to a specified pattern. Our dependent variable was the speed with which participants completed this mouse-click task. Consistent with our temptations-collide hypothesis, participants in the single-temptation condition worked significantly faster on the mouse-click task than those in the multiple-temptation condition. This suggests that participants exhibited greater desire to gratify the temptation(s) when they were anticipating only one temptation (vs. multiple temptations).

In Study-2, we used intertemporal impatience as a measure of consumer desire (Van den Bergh, Dewitte, and Warlop 2008). Participants answered a standard intertemporal question, which asked them to specify the amount of money they would require after a certain period of time delay to be indifferent to receiving an immediate reward now. The immediate reward was either a single temptation ("20 cash") or multiple temptations ("20 cash plus 5 Amazon gift certificate"). Although the cumulative monetary value of the reward(s) was higher in the multiple-temptation condition, we found that participants in the single-temptation (vs. multiple-temptation) condition desired a significantly larger amount of money to compensate for not receiving the immediate reward. Stated differently, participants felt stronger desire for immediate gratification of the single temptation (vs. multiple temptations), and therefore exhibited greater intertemporal impatience.

Prior research suggests that consumers are more likely to use mental imagery processing when they rely on feelings in their evaluations (Pham 1998). Therefore, if our conceptualization related to mental imagery is valid, we should only observe the temptations-collide effect when consumers rely on feelings, but not when they are in a calculative mindset. We examine this hypothesis in Study-3. Specifically, we employed a priming task (Hsee and Rottenstreich 2004) to manipulate consumers' reliance on feelings versus calculation. Subsequently, participants were asked to imagine that a local museum was holding an art exhibition, and among others, the museum had imported one painting (vs. two paintings) from the celebrated artist Salvador Dalí. In the single-temptation condition, one of the two paintings (pretested to be equally attractive) was randomly chosen and displayed, whereas in the two-temptation condition, both the paintings were displayed. Our results show that, when participants were primed to rely on feelings, viewing one attractive painting (vs. two attractive paintings) led to higher intention and higher willingness-to-pay for attending the exhibition. However, we observed a reversed effect when participants were primed to rely on calculation.

Further, prior research suggests that consumers are more likely to use mental imagery processing when they have a hedonic consumption goal rather than a utilitarian consumption goal (Pham 1998). This logic formed the basis of Study-4. Employing the same art exhibition scenario in the previous study, we manipulated the consumption goal by asking participants to imagine that they wanted to enjoy themselves after a week of hard work (hedonic goal) or to

enrich their knowledge of art history (utilitarian goal). Our results show that viewing one painting (vs. two paintings) led to higher intention and higher willingness-to-pay for attending the exhibition when participants had a hedonic consumption goal. However, we observed a reversed effect when participants had a utilitarian consumption goal.

Finally, in Study-5, we examined the role of individual difference related to one's tendency to use visual imagery processing in moderating the temptations-collide effect. Specifically, we argue that consumers who have a greater tendency to process information using visual images are more likely to exhibit the temptations-collide effect. Participants first evaluated a vacation package highlighting either one or two appealing vacation experience(s). In the single-temptation condition, the vacation package featured either a picture of snorkeling in the tropical seascapes or a picture of a beautiful ancient temple; whereas in the multiple-temptation condition, both pictures were featured in the vacation package. Next, participants responded to a Style-of-Processing Scale (Childers, Houston, and Heckler 1985), which distinguishes between individuals with a disposition to construct visual images when processing information (visualizers) and those with a disposition to process information semantically without forming images (verbalizers). Consistent with our results from previous studies, we show that participants in the single-temptation condition indicated significantly higher willingness-to-pay for the vacation package than those in the multiple-temptation condition. More importantly, this effect was only observed for visualizers (i.e., those who process information using visual imagery) but not for verbalizers (i.e., those who processed information semantically without visual imagery).

In summary, our findings demonstrate that multiple temptations, as opposed to a single temptation, can ironically reduce the strength of consumers' desire for immediate gratification. We discuss the theoretical and practical importance of our findings.

For more information, contact: kuangjie.zhang@insead.edu

6.3 Symposium: New Frontiers in Variety-Seeking Research

Room: Desert Willow

Chair: Aner Sela, University of Florida, USA
Michal Maimaran, Northwestern University, USA

Freedom for All? The Downside of Variety for Goal Pursuit

Jordan Etkin, University of Maryland, USA*
Juliano Laran, University of Miami, USA

Much of consumer behavior is goal-directed. Consumers buy healthy foods because they wish to be healthy and professional clothes because they want to be successful in their careers. The products that consumers purchase to help them achieve their goals are referred to as "means" to goal attainment (Kruglanski et al. 2002; Markman, Brendl, and Kim 2007; Shah and Kruglanski 2003). Although goal pursuit research has largely focused on the choice of a single means, consumers are likely to make use of multiple means to pursue their goal over time (Kruglanski and Jaffe 1988; Kruglanski et al. 2002). Past work on choice has found that when consumers choose multiple products, they are likely to incorporate variety in their choices (Givon 1984; Iyengar and Lepper 2000; Kahn and Ratner 2005; Menon and Kahn 2005; Ratner and Kahn 2002; Ratner et al. 1999). Thus, when choosing multiple means to goal attainment, consumers are also likely to incorporate variety into their choices.

However, consumers' ability to choose a variety of means may be subject to situational constraints. Retailers often differ in terms of the level of variety they offer among product assortments. As a result, consumers' ability to choose

different types of means will be constrained by store-level decisions regarding how much variety to stock and which product categories should offer more or less variety, decisions that may not always match a consumer's immediate preference for choosing variety. How might consumers' ability to choose a variety of means impact their subsequent motivation to pursue the associated goal?

We propose that being able to choose a variety of means to goal attainment will have a detrimental impact on subsequent motivation to pursue the goal relative to when one's freedom of choice is restricted. We argue that when consumers have the freedom to pursue their goal as they wish (i.e., they are free to choose a variety of means to goal attainment), they will perceive that the goal has been satisfied to a greater extent relative to those whose freedom of choice is restricted. This heightened sense of having satisfied the goal will serve as a cue that sufficient progress has been made towards goal attainment, leading consumers to be less motivated in subsequent goal pursuit. As a result, contrary to the beneficial effect of perceived freedom of choice on motivation identified in previous research, we argue that having the freedom to choose a variety of means can be detrimental to subsequent goal pursuit.

Across five studies we find consistent support for our proposition. In each study, we first invite participants to make several snack choices. We vary whether participants are given a self-control goal when making their choices as well as whether they are allowed to choose a variety of means (i.e., freedom of choice), and then measure their motivation to pursue a self-control goal. Study 1 shows that having the freedom to choose from a more varied set of healthy means (10 different snacks) relative to a less varied set of healthy means (three different snacks) has a negative effect on subsequent motivation to pursue the goal ($M_{\text{high variety}} = 4.93$, $M_{\text{low variety}} = 5.75$; $F(1, 115) = 5.42$, $p < .05$). Study 2 extends the results of study 1 by showing that even when the variety of a set of means is held constant, giving consumers the freedom to choose a variety of means (i.e., multiple different types of means) decreases subsequent choice of a goal-consistent product (an apple) over a goal-inconsistent product (a candy bar) relative to only allowing them to choose multiple of the same type of means ($M_{\text{high variety}} = 26.9\%$, $M_{\text{low variety}} = 56.0\%$; $\chi^2(1) = 4.45$, $p < .05$).

Study 3A shows that consumers who have had the opportunity to choose a variety of means perceive that their self-control goal is more satisfied ($M_{\text{high variety}} = 5.45$, $M_{\text{low variety}} = 6.10$; $F(1, 142) = 4.52$, $p < .05$) and are subsequently less motivated pursue the goal ($M_{\text{high variety}} = 5.45$; $M_{\text{low variety}} = 6.10$; $F(1, 142) = 4.52$, $p < .05$) relative to those whose freedom of choice was restricted due to a stock-out (i.e., "the items are not available"). In study 3B we find that individuals who are high in self-control as a personality trait also become less motivated to pursue the goal once they have had freedom to choose a variety of healthy means versus when a variety of means are chosen for them by a friend ($\beta = -1.42$, $p = .01$), showing that our effect is not specific to a goal activated at the time of choice, nor is it driven by merely having a variety of means available for use in pursuing the goal. Finally, in Study 4 we show that the effect is mediated by perceived freedom of choice when individuals are free to choose their own means (indirect effect = -1.55; 95% CI: -2.60 to -.50), but not when their freedom of choice is restricted.

Our work makes a number of contributions to past work on variety-seeking, free choice, and motivation. In contrast to past work that has focused on the effects of choosing one means on subsequent goal pursuit, we consider how choosing multiple goal-relevant items impacts motivation. We find evidence that being free to choose multiple, varied means to goal attainment has a unique and counter-intuitive impact on motivation, making it an important direction of inquiry. Further, past work on variety-seeking has identified a number of factors that influence the amount of variety chosen in a particular situation (Kahn and Ratner 2005; Menon and Kahn 2005). Much less explored, however, are the implications of being free versus not free to choose variety. We show that having the freedom to choose a varied set of products may have negative consequences for people's self-regulatory behavior.

For more information, contact: jetkin@rhsmith.umd.edu

Less is More: Variety-Seeking as a Preference Strength Signal

Aner Sela, University of Florida, USA*

Michal Maimaran, Northwestern University, USA

People often exhibit a preference for variety when selecting multiple items from a category on a single occasion. We buy an assortment of yogurt flavors, snacks, and herbal teas rather than pick our favorite option multiple times, even though doing so forces us to include less-preferred options (McAlister and Pessemier 1982). This preference for variety is explained in terms of uncertainty about future preferences (Read and Loewenstein 1995; Simonson 1990), a tendency to prefer varied experiences (Drolet 2002; Ratner, Kahn, and Kahneman 1999), and social norms favoring variety (Ariely and Levav 2000; Ratner and Kahn 2002).

Although most prior work has focused on factors that lead people to increase the amount of variety in their selections, are there situations in which less, rather than more variety would be preferred? We propose that people selectively choose smaller or larger amounts of variety to convey information, both to others and to themselves, about the strength of their preferences. We demonstrate that choosing a small variety is often perceived as an indication of strong and identity-related preferences for the selected options, whereas choice of a large variety is perceived as an indication of weaker and identity-unrelated preferences.

This proposition leads to novel predictions that are unexplained by previous accounts. Specifically, we predict and demonstrate that people often vary the amounts of variety they choose as a means of conveying desirable information about the strength or weakness of their preferences for options in socially-desirable vs. undesirable domains. Focusing on choice among highbrow and lowbrow options (e.g., Khan and Dhar 2007; Levine 1990), we demonstrate that people perceive others selecting a smaller variety of highbrow options or a larger variety of lowbrow options as more sophisticated than others selecting a larger variety of highbrow options or a smaller variety of lowbrow options. Furthermore, when self-presentation cues are present (e.g., when people expect to be evaluated by others or when they feel uncertain about their level of sophistication), they incorporate less variety in choices among highbrow products, thereby expressing strong preferences for sophisticated options, and more variety in choices among lowbrow products, thereby expressing weak preferences for unsophisticated options.

In experiment 1, respondents evaluated others who chose either a smaller or a larger variety among options in either highbrow or lowbrow categories (e.g., highbrow vs. lowbrow movies). People who chose a small variety were perceived as having stronger preferences and a greater degree of self-relevance for the selected options than those who chose a large variety, regardless of whether the options were highbrow or lowbrow. Consistent with our conceptualization, people choosing a smaller (vs. larger) variety among highbrow options, and a larger (vs. smaller) variety among lowbrow options, were also perceived as more sophisticated.

Experiment 2 examined how people choose different amounts of variety strategically, to convey information about the strength of their preferences. Compared to control participants, those who expected their choices to be evaluated by others (Ratner & Kahn 2002; Simonson & Nowlis 2000) chose *less* variety among highbrow options (i.e., wines), thereby signaling stronger preferences for sophisticated options, and *more* variety among lowbrow options (i.e., sodas), thereby signaling weaker preferences for unsophisticated options.

If people choose variety selectively, to signal the strength of their preferences for socially-desirable versus undesirable options, then the effect of anticipated evaluation should depend on the extent to which specific types of options are

believed to be socially-desirable. Though highbrow options tend to be perceived as more socially-desirable than lowbrow options in general (Bazerman, Tenbrunsel, and Wade-Benzoni 1998; Kivetz and Keinan 2006), specific social circumstances can make lowbrow options more desirable than highbrow options. Experiment 3 demonstrates the process underlying the effect of anticipated evaluation on variety-seeking by directly manipulating social desirability. College students chose less (more) variety among movies starring highbrow (lowbrow) actors when they expected to be evaluated by faculty members (who presumably endorsed highbrow movies). However, they chose more (less) variety among movies starring highbrow (lowbrow) actors when expecting to be evaluated by undergraduate students (who presumably endorsed lowbrow movies).

Experiment 4 demonstrates that people use variety to convey information not only to others but also to oneself, as a means for bolstering their self-view. Participants were first primed to feel either certain or uncertain about their own level of sophistication. Then, they selected three movies starring either highbrow or lowbrow actors. Consistent with our theory, they selected less variety among highbrow options and more variety among lowbrow options after being primed with sophistication-*uncertainty* than with sophistication-*certainty*. Moreover, choosing a smaller variety among highbrow options boosted participants' sophisticated self-perceptions.

Taken together, these findings provide a novel explanation for variety-seeking behavior and support our hypothesis that people choose variety strategically, to signal their preferences for options with socially-desirable traits. The results suggest that people choose less (more) variety to signal stronger (weaker) preferences for socially-desirable (undesirable) options, such as highbrow (lowbrow) products. Further, although prior work has focused on consumers' tendency to incorporate *more* variety in their selections, the current findings suggest that a small variety is often more diagnostic than a large variety as an indicator of preferences.

For more information, contact: anersela@gmail.com

Variety-Seeking and the Desire for Consumption Expertise

Joshua Clarkson, University of Florida, USA*

Chris Janiszewski, University of Florida, USA

Melissa Minor, University of Florida, USA

It is almost a truism in marketing that consumers are highly motivated to seek out variety in their choices—and for good reason. Variety-seeking has been shown to provide a host of benefits to the consumer, such as meeting desired stimulation needs, satisfying dispositional needs for variety, reducing product satiation, fulfilling an inherent need to change decision strategies, and facilitating social acceptance (see Kahn and Ratner 2005). Interestingly, however, consumers often seek out variety through consumption experiences that fall short of the hedonic satisfaction of their favorites. In fact, consumers not only fail to maximize hedonic satisfaction in their pursuit of variety (Ratner et al. 1999), they often do so with consumption experiences they know to be hedonically suboptimal (Andrade and Cohen 2007).

While consumers may be willing to tradeoff satisfaction for variety in order to reduce satiation or facilitate a need for stimulation, we argue in the current research that consumers identify utility in the knowledge that accrues from novel consumption experiences—a benefit we label *consumption expertise*. Moreover, we believe that consumers are systematic in their knowledge pursuits, trading-off satisfaction for increased knowledge only when the novel experience enhances their current level of expertise. Thus, we expected novices to seek out novel consumption experiences that

broaden their existing knowledge (e.g., products that are dissimilar to their preferences) and experts to seek out novel consumption experiences that deepen their existing knowledge (e.g. products that are similar to their preferences). As an initial test of this hypothesis, we presented undergraduates with one of two persuasive advertisements for a new beer. In one ad, participants were presented with a slogan pretested to convey an opportunity to enhance consumers' breadth of knowledge (i.e., "New Haven Beer – It's just different"), whereas in the other ad participants were presented with a slogan pretested to convey an opportunity to enhance consumers' depth of knowledge (i.e., "New Haven Beer – It's just better"). Prior to receiving the messages, participants were randomly assigned to perceive themselves as either experts or novices about beer. Consistent with expectations, novices reported a greater preference for the beer positioned to enhance their breadth of knowledge, whereas experts reported a greater preference for the beer positioned to enhance their depth of knowledge. Moreover, these preferences were relative to their favorite beers, suggesting that novices and experts were selectively willing to tradeoff satisfaction for different opportunities to enhance their current expertise.

Additionally, we asked participants to indicate the extent to which the beer would enhance their expertise. Consistent with the preference data, novices indicated the beer positioned to enhance breadth of knowledge offered greater knowledge whereas experts indicated the beer positioned to enhance depth of knowledge offered greater knowledge. This index mediated participants' preferences, offering further support for the role of the enhancement of consumption expertise as a novel motivator of variety-seeking.

To provide stronger evidence that consumers' preferences are driven by knowledge gain, we conducted a second experiment in which participants were informed of a fictitious attribute of beer and then presented with a label that presented the attribute as either high or low in either breadth or depth of knowledge. As in experiment 1, we manipulated participants' perceived level of consumption expertise. The results showed that participants only preferred the new beer that was not just high in knowledge (as might be expected if participants were merely seeking new knowledge), but high in the specific type of knowledge that would enhance their current level of expertise. That is, when novices [experts] were presented with the beer offering enhanced breadth [depth] of knowledge, they consistently preferred the novel consumption experience that would enhance their expertise over the comparative low knowledge alternative.

Finally, we conducted a third experiment in which we explored our hypothesized motive underlying this desire for consumption expertise—namely, that expertise enhances one's appreciation of the consumption experience. Consumers may seek to enhance their breadth of knowledge under certain motives (e.g., social interaction) and their depth of knowledge under other motives (e.g., belief justification), yet these motives should be independent of consumers' current level of expertise. However, the pursuit of appreciation should drive consumers to seek out consumption experiences that best enhance their current level of expertise. Thus, we replicated experiment 1 with the addition of a motive induction for variety-seeking in which we informed participants that New Haven beer could: (1) provide the opportunity to increase their appreciation the taste of beer (appreciation), (2) allow more informed conversations about the taste of beer (social interaction), or (3) resolve any uncertainty about your taste in beer (belief justification). The results were as expected. Social interaction [belief justification] lead to enhanced preference for the beer offering enhanced breadth [depth] of knowledge, regardless of participants' perceived level of expertise. However, appreciation led novices [experts] to seek out the beer offering enhanced breadth [depth] of knowledge.

Evidence from three experiments, then, reveals that consumers identify utility in the expertise accumulated across experiences. This utility leads consumers to select novel consumption experiences that enhance their current level of expertise, even when knowledge acquisition comes at the cost of experiences with greater hedonic utility. Interestingly, while consumers identify multiple benefits to variety-seeking, one commonality that extends across each of these

benefits is the acquisition of knowledge about the consumption experience. Therefore, novel options that offer relevant knowledge (i.e., knowledge that enhances consumption expertise) should be weighted greater, regardless of the primary benefit pursued. Additionally, researchers have argued that variety-seeking is suboptimal with respect to hedonic maximization. The pursuit of consumption expertise, however, may not necessarily sacrifice satisfaction. Indeed, if the accumulation of knowledge increases the consumers' appreciation of an experience, then short term knowledge pursuit may not only immediately increase appreciation, but also result in maximizing long term satisfaction.

For more information, contact: joshua.clarkson@warrington.ufl.edu

Too Much of a Good Thing? Effects of Visual vs. Verbal Choice Set Depiction on Perceived Variety, Complexity and Willingness to Choose

Claudia Townsend, University of Miami, USA*

Barbara Kahn, University of Pennsylvania, USA

Variety in choice options tends to be an attractive feature (Sellars 1991 as cited in Kahn 1995) and variety-seeking is understood to be a common consumer behavior (McAlister and Pessemier, 1982). And yet, variety can increase perceived complexity and, moreover, too much variety can be overwhelming leading to decreased motivation to choose and harming subsequent satisfaction (Iyengar and Lepper 2000). Therefore, it seems a balance must be struck between providing enough variety so as to attract consumers, without overwhelming them with options.

A natural question that arises from this discussion is to consider how variety is perceived. We know that perceived variety is a function of the number of items offered as well as the degree of similarity between them (Kahn and Lehman 1991). But are retailers able to vary perceptions of variety without changing the options presented? We investigate this question by focusing on the presentation form of the options, whether products are presented visually in pictures or verbally in words. We examine what type of presentation form is preferred and also whether presentation form influences the decision-making process including perceptions of variety and choice.

Images and text are processed separately and differently with different parts of the brain being activated (Khateb et al.; 2002 Pavio 1971, 1986). Images are processed more quickly and more automatically than words (Kroll and deGroot 1997, Luna and Peracchio 2003) and can be processed in a gestalt-like manner while text requires sequential processing (Hart 1997, Sharp and Nunes 2002). Because this more automatic and holistic processing of words likely feels easier than that of text, we predict decision-makers will prefer visual depiction over verbal. And yet, holistic processing is not always superior (Hoch and Deighton 1989, Meyer 1986, 1987). In larger choice sets more piecemeal processing, as facilitated by textual depiction, likely leads to lower perceptions of complexity, increased process satisfaction, and greater willingness to choose (Huffman and Kahn 1998). We, therefore, hypothesized that, while visual depiction will be preferred over verbal across choice-set settings, it will only be advantageous in small choice sets and actually cause greater perceptions of both variety and complexity as well as choice overload in large choice sets.

In study 1 we examined preference for choice sets. Respondents were asked to select a choice set from which to choose crackers for a party. Respondents chose whether to view 8 options or 27 options and whether to view the options visually in cartoon-like images or verbally in written description. Confirming our hypothesis the majority (81%, $t(97) = 7.63$, $p < .01$) opted for options presented visually. This preference existed regardless of choice set size ($\chi^2(1, N = 46) = 2.71$, $p = .10$). And yet, despite creating the choice set themselves, respondents rate the choice sets differently. There is an interaction of presentation format and number of options selected whereby among respondents who selected 8 options there is no difference in perceptions of variety or complexity between respondents who saw images versus those

who saw text (Variety: $M_{\text{visual}} = 5.6$, $M_{\text{verbal}} = 6.2$, $t(64) = 1.1$, $p = .23$; Complexity: $M_{\text{visual}} = 4.4$, $M_{\text{verbal}} = 5.0$, $t(64) = 1.0$, $p = .32$). In contrast, among respondents who selected 27 options there is a difference whereby respondents who saw visual images perceive greater variety and complexity than those who see verbal written descriptions (Variety: $M_{\text{visual}} = 7.2$, $M_{\text{verbal}} = 4.9$, $t(30) = 3.3$, $p = .002$; Complexity: $M_{\text{visual}} = 5.5$, $M_{\text{verbal}} = 3.7$, $t(30) = 2.6$, $p = .016$). This supports our belief that visual images and the gestalt-like processing they require are not useful in large datasets where piecemeal thinking is required to parse the options.

In study 2 we examined how presentation form influences choice. In contrast to study 1 rather than selecting the choice sets, respondents were randomly assigned to one of four choice sets (2X2: visual or verbal depiction; 8 or 27 options) and were asked to make a choice from it. Examining the propensity to opt out of choice and select “none of the above”, we found there was no difference among 8 options (Images = 5%, Text = 12%; $t(115) = 1.18$, $p = .24$) while with 27 options more respondents opted out of choice who saw images than who saw text (Images = 16%, Text = 3%; $t(117) = 2.30$, $p = .025$). There was also a main effect of presentation form with higher scores for images than text on measures of variety ($F(1,234) = 10.8$, $p = .001$) and complexity ($F(1,234) = 3.99$, $p = .047$). Moreover, among 27 options, perceptions of complexity mediates the influence of presentation format on propensity to opt out of a choice. Choice time taken also mediates the effect.

In study 3, we observe the influence of verbal versus visual presentation on recall of assortment options allowing us to speak to the depth and ability to process information in the two forms. The results are consistent with our hypothesis; among 8 options respondents who saw images performed better than those who saw verbal descriptions ($t(97) = 6.83$, $p = .00$). However among 27 options respondents who saw images performed worse than those who saw verbal descriptions ($t(102) = 2.48$, $p = .02$). The implication is that visual presentation, while preferred across choice set sizes, is not advantageous in larger choice sets.

Together these three studies reveal the propensity to prefer visual depiction but also when and how visual depiction is less helpful than verbal. We find, therefore, that the visual preference heuristic, like many others is over-applied. We also discuss how this result offers a boundary condition for Iyengar and Lepper’s (2000) results on variety and choice overload.

For more information, contact: ctownsend@bus.miami.edu

6.4 Individual Papers: iDon't Know How to Love Him: Brands and their Consumers

Room: Palo Verde

Chair: Eric Greenleaf, New York University, USA

Tourists or Immigrants? How New Consumers Dilute or Reinforce the Image of Symbolic Brands

Silvia Bellezza, Harvard Business School, USA*

Anat Keinan, Harvard Business School, USA

There is an inherent trade-off in managing symbolic and luxury brands. Brand managers need to generate growth by extending the customer base to new segments and new markets; yet, this increased popularity and prevalence can paradoxically hurt the brand and threaten its symbolic value. For instance, the popularity of Tiffany’s highly profitable and fast growing line of cheaper silver jewelry threatened to alienate the brand’s older and wealthier clients and damage Tiffany’s reputation for luxury. Other notorious examples include Pierre Cardin, whose licensing operations proliferated

to over 800 products and consequently became too common for many high-fashion customers, and Gucci, whose product line consisted of 22,000 items, but eventually managed to re-focus the brand.

Indeed, marketing research and the popular press warn managers of brand dilution risks (Aaker and Keller 1992; Gürhan-Canli and Maheswaran 1998; Loken and Roedder-John 1993). Existing consumers of luxury brands have a strong desire to limit the number and type of consumers who have access to the brand, and thus maintain the brand's distinctiveness. Extending prestige brands to new product categories and new customer segments can compromise the long term equity of the brand. In particular, downward brand extensions, which offer new consumers access to the brand at a lower price point, diminish the exclusivity of the brand (Kirmani, Sood and Bridges 1999).

Contrary to the shared view that new lower status consumers are by definition a threat to luxury and symbolic brands and that the value of the brand decreases with the number of users, we investigate the conditions under which downward brand extensions can enhance, rather than dilute, the image and prestige of the brand. We introduce a distinction between two types of new consumers, based on how they are perceived by current consumers of the brand (i.e., the brand owners). We define "*brand immigrants*" as those who are perceived by brand owners to claim "brand membership rights" they do not fully deserve (i.e., consider themselves as part of the in-group of brand owners), and define "*brand tourists*" as those who buy the new branded products but do not claim any membership rights (i.e., do not claim to be part of the brand owner's in-group).

We propose that new consumers who are perceived by current consumers as claiming, but not deserving, brand membership rights (i.e., brand immigrants) will have a negative impact on the brand. However, when these new consumers are not perceived to claim membership rights, but just show their appreciation and admiration of the brand (i.e., brand tourists), they will not dilute the brand image, but rather reinforce and enhance its symbolic value. Thus brand owners' reactions to new consumers are mediated by the impact on the symbolic value of the brand. While brand immigrants are viewed as a threat to the symbolic value of the brand, brand tourists are perceived to enhance a positive brand image. Moreover, we adapt the patriotism scale (Kosterman and Feshbach 1989) to brands and introduce a "brand patriotism" scale to measure the degree to which symbolic brand owners can be classified as strong or weak patriots of the brand. Brand patriots have a more positive response to brand tourists and a more negative response to brand immigrants, compared to the reactions of consumers with lower brand patriotism. Finally, we examine the moderating role of current customers' ownership status and investigate the role of product category of extension.

Six studies explore the response of current symbolic brands' consumers to new customers and new brand extensions. In study 1, we establish the main premise in our conceptualization and show that citizens hold more favorable attitudes towards tourists than immigrants. We also find that high patriotism among citizens leads to more positive (negative) reactions to tourists (immigrants). In study 2 we obtain similar results in a branding context, and demonstrate that the effect is moderated by brand ownership. Study 2 examines the response of Harvard Undergraduates to a Harvard part-time and online program. We manipulate the description of the part-time students (as claiming vs. not claiming membership rights to the Harvard students community), and compare the reactions of Harvard Undergraduates to those of students from other universities. We find more positive reactions when the part-time students are perceived as brand tourists. Furthermore we find support for the mediating role of the impact on the symbolic value and for ownership status as a moderator. Study 3 examines the response of "Tough Mudder" participants. Tough Mudder is a series of obstacle course competitions. We test how brand owners (run participants) react to offering non-participants the opportunity to buy a ticket to watch the run and take part in the festivities. We describe these non-participants as brand tourists or immigrants. We find that while brand immigrants are perceived as a threat to the symbolic value of the brand, tourists reinforce and enhance the brand's desirability and status. This effect is stronger for brand patriots. Study 4 examines a different way of depicting consumers as brand tourist or brand immigrant; rather than manipulating the

description or testimonials of new consumers, we manipulate how and where the product is being used. We analyze Ferrari owners' reactions to Ferrari car renters and find that owners react negatively when renters intend to drive the car in the streets of Miami, but react positively when the renters intend to experience the car in a closed racing track. In studies 5 and 6 we investigate the role of product category and related marketing strategies such as limiting access to the product. For example, we examine the response of Ferrari car owners to a variety of Ferrari products (Ferrari city car, videogame, museum) and show that Ferrari owners react more positively (negatively) to brand extensions in dissimilar (similar) product categories.

Finally, we discuss theoretical contributions for research on brand extension and symbolic brands. We propose strategies for minimizing the brand immigrants' effect and capitalizing on the brand tourism effect.

For more information, contact: sbellezza@hbs.edu

Brand Dilution: The Impact of the User of Counterfeits on Genuine Brand Perception and the Moderating Role of Social Class

Nelson Amaral, University of Minnesota, USA*

Barbara Loken, University of Minnesota, USA

Traditionally, brands of luxury goods or status goods are defined as those for which the mere use or display of the branded product brings prestige on the owner, apart from any functional utility (Grossman and Shapiro, 1988b). Many firms spend significant portions of their revenue, and top management's time, on building such strong brands by communicating positive and unique identities to consumers. These efforts, however, can be undermined by the unauthorized use of trademarks through counterfeit products, offering consumers some of the symbolism of the brand for a fraction of the cost of the genuine name brands (\$20 Rolex watches or \$40 Prada bags).

The costs associated with counterfeit goods world-wide has been estimated at about \$550 billion, or 5-7% of world trade (Underwriters Laboratories, 2007). However, these costs do not begin to account for the reduction in perceived quality, prestige, and other core brand associations that may result and can not be accounted for on a balance sheet. Despite the magnitude of the problem very little attention has been given to the issue of counterfeits in the marketing literature. Specifically, research on the effects of counterfeit goods on dilution of the brands they imitate is lacking (Loken and John, 2010). The questions we address in our research are the nature of people's inferences about others who use counterfeit brands and how these perceptions negatively or positively interact with social class in affecting a brand's equity.

Conceptual Background

People compare themselves to both in-group and out-group members to maintain in-group distinctiveness (Tajfel and Turner, 1979). Research on dissociative reference groups suggests that people avoid brands that are associated with disliked groups (White and Dahl 2006). Furthermore, consumers may abandon brands when out-groups adopt them and the brands stop being distinctive (Berger and Heath 2007). With respect to prestigious brands in particular, there is evidence that an individual's consumption pattern could symbolize his or her social class position (Martineau, 1968). As a result, the consumer's use of a counterfeit product, such as a counterfeit "Louis Vuitton" bag, could have specific effects on the symbolism of that brand for other consumers, depending on the social class of the counterfeit user. Specifically, persons who identify with a similar social class should be more likely to accept counterfeit product usage than persons from a different social class than the counterfeit user. It follows that brand dilution of the genuine brand

will be less likely to occur when a counterfeit product is used by a member of one's in-group social class than one's out-group social class. We investigate this hypothesis through three experiments.

Methodology

Three experiments were conducted in a laboratory setting with female undergraduates at a large University in the Midwest. In Studies 1 and 2, we had participants view a photo of a consumer using a luxury handbag and subsequently report their beliefs and attitudes about the genuine brand. The luxury handbag shown in the photo was described as either a counterfeit luxury brand or a real luxury brand, and the woman in the photo (using the handbag) was described in terms that reflected either a higher or a lower social class. In Study 3, we provide a more direct investigation of the role of social group similarity on brand beliefs by manipulating the class of both the consumer and the observer (i.e. the participants).

Results Summary

The results from the first two studies suggest that, for prestige products, the use of counterfeit products can dilute people's perceptions of the genuine brand but that this effect is limited by the perceived social class of the consumer. In both studies, ANOVA revealed significant two-way interactions between counterfeit-real brand and consumer social class on beliefs about prestige of the genuine brand and overall brand attitude toward the genuine brand. Specifically, beliefs about the prestige of Prada (study 1) and Louis Vuitton (study 2) were higher when the counterfeit was being used by a higher class consumer than a consumer from a lower social class (study 1: 5.26 vs. 5.91, $p < 0.05$; study 2: 5.11 vs. 4.29; $p < 0.05$).

The third study manipulated participants' perceptions of their own social class in order to provide a test about whether the results from Studies 1 and 2 were due to the class of the user in the photo (i.e. lower ratings for a lower class user) or whether the results were due to the mismatch between social class of the user and the participant (i.e. participants were generally higher class producing a mismatch their social class and the lower social-class user). Unlike the first two studies, which presumably looked at only observers who were self-perceived "high class" individuals, study 3 allowed us to examine conditions in which the observer is self-perceived as a relatively "lower" class individual. This permitted an investigation of the effects of a relatively lower-class observer witnessing either a relatively low or high class consumer using the counterfeit prestige product. The results from this study demonstrated that a match in the social classes of the observer and the consumer resulted in higher beliefs and attitudes towards the original brand than a mis-match between the social classes, for both high and low class observers (i.e. participants) (Low-Class Ss: M_{Lo} : 5.76 vs. M_{Hi} : 4.58, $p = 0.008$; High Class Ss: M_{Lo} : 5.11 vs. M_{Hi} : 5.59, $p = 0.16$).

General Discussion

Together, these studies provide the first empirical evidence for the dilution effects of counterfeit use on the genuine brand. The studies also demonstrate that the effects of counterfeit use on beliefs of prestige and overall brand attitudes, depends significantly on the social class of the observer and the consumer. Combined, the results provide evidence for an important role that is played between the social classes of the users of counterfeits and those of the people who observe them. Importantly, the perceptions of people who observe the use of counterfeits of luxury brands are more positively (negatively) disposed to liking the genuine brand when the counterfeit product is used by an in-group (out-group) member.

For more information, contact: amara013@umn.edu

Consumer Choices between a Low-End Model of a High-Status Brand and a High-End Model of a Low-Status Brand: The Role of Temporal Distance and Priming

Jongwon Park, Korea University, Korea*

So Hyun Kim, Korea University, Korea

Would you choose a high-end luxury model of Hyundai automobile or a basic model of BMW 1-series if their prices are same? Or, would you choose an executive suite room at Holiday Inn or a standard room at Grand Hyatt available at the same price? As such, consumers often encounter an opportunity to make a choice between a low-end model of a high-status brand and a high-end model of a low-status brand. The question is when and why a particular alternative is preferred to the other. The present research provides some insights into this matter.

Previous research provided some answers. For example, Randall, et al. (1998) reported that a same bike was evaluated more favorably when it was allegedly a low-end model of a luxury brand than a high-end model of an ordinary brand, suggesting that the category (brand) has a predominant influence. In contrast, Hsee's (1998) found that an expensive gift in a relatively inexpensive product category (a \$45 scarf) was preferred to an inexpensive gift in a relatively expensive product category (a \$55 wool coat), suggesting that the rank within category or specific attribute configuration might have a predominant influence. More recently, Leclerc, et al. (2005) resolved this inconsistency by showing that the "category" effect predominated in joint evaluations but the "ranking effect" predominated in separate evaluations.

Our research extends this literature by showing that either the category effect or the ranking effect can occur under the joint evaluation mode, depending on individuals' level of construal (an abstract, high-level construal vs. a concrete, low-level construal; Trope & Liberman, 2003) and that this variable interacts with the accessibility of a decision criterion (e.g., prestige vs. thrifty; Chartrand et al., 2008) to ultimately determine the relative preference between the alternatives. According to the priming literature, consumers seldom consider all of the criteria relevant for a decision but rather take into account only a subset of the criteria that come to mind quickly and easily. This suggests that priming a particular concept can influence consumer choices. According to construal level theory, individuals construe the consequences of their behavior in global, categorical terms when they think about engaging in it in future, but focus on concrete, context-specific implications of the behavior if they contemplate performing it immediately. This suggests that the brand category information becomes more important but the more specific, rank information within the category becomes less important, as temporal distance increases.

These have implications for the issue of our concern, i.e., consumers' choice between a low-end model of a high-status brand and a high-end model of a low-status brand. Specifically, priming the concept of prestige can increase consumers' likelihood of using it as a decision criterion and their likelihood of choosing an alternative that is perceived to be more luxurious than the other alternative. However, both alternatives we consider have a "luxury" component, one at a more global, category level and one at a more specific, feature level. Therefore, consumers' alternative choice would also depend on their construal level (which is determined by temporal distance in our research). In sum, therefore, we hypothesized that consumers who are primed by prestige, compared to those primed by thrifty, would be more likely to choose the low-end model of a high-status brand when they make a choice for future use, but would be more likely to choose the high-end model of a low-status brand when they make a choice for immediate use.

Methods

Three experiments confirmed our hypothesis and the results generalized over different stimuli, presentations of information, and dependent measures. Participants in each experiment, after being primed by a particular concept, were asked to choose between a low-end model of a high-status brand and a high-end model of a low-status brand, either for an immediate use (“next day”) or for a future use (“next year”). A total of 109 students participated in experiment 1, 104 in experiment 2, and 73 in experiment 3.

In each experiment, participants were first asked to participate in a “priming” task. Participants were given several sets of 6 to 8 words in scrambled order and were asked to reorganize each set of words into a meaningful phrase (e.g., Srull & Wyer, 1979). Half of the sets contained words related to either thrifty (thrifty-priming conditions), prestige (prestige-priming conditions), or neither (no-priming conditions, only in experiment 2). The remaining sets of words were all unrelated to consumption and were common to all priming conditions.

After this, participants were asked to participate in an ostensibly unrelated product choice task. The choice stimuli were either two automobiles (Hyundai vs. Volkswagen; experiments 1 and 2) or two hotel rooms (Carlton vs. Grand Hyatt; experiment 3). In each case, the choice stimuli were constructed by paring the high-status brand name with a low-end model description (e.g., small engine size, standard features, etc. in the automobile case; economy room, etc. in the hotel room case) and the low-status brand with a high-end model description (e.g., large engine size, luxury features, etc.; executive suite room, etc.). Pretests confirmed that (1) Volkswagen was perceived to be more prestigious than Hyundai and Grand Hyatt more prestigious than Carlton, (2) the high-end model description was perceived to be more luxurious than the low-end model description, and (3) the brand name was more abstract information than the model description. Finally, in all cases, the prices of the two alternatives were kept same.

Results

The effects we hypothesized were confirmed in experiment 1. Participants primed by prestige, compared to those primed by thrifty, were more likely to choose the luxury-brand’s low-end model for future use (.50 vs. .37) but less likely to do so for immediate use (.33 vs. .72), which was evidenced by a significant interaction of priming and temporal distance ($Wald = 4.91, p < .05$). This suggests that participants use a primed concept as a decision criterion, but selectively attend to the product’s brand category vs. specific attributes depending on temporal distance, as we assume.

One limitation of experiment 1 is that the brand category was always presented first in the stimulus description, thus allowing an alternative explanation that the results might be due to participants’ differential attention to the first information rather than the abstract information in future-use conditions. To address this, in experiment 2 the brand name appeared after the specific description of the model was presented. In contrary to the alternative explanation, however, participants primed by prestige, compared to those primed by thrifty, were more likely to choose the luxury-brand’s low-end model for future use (.47 vs. .13) but less likely to do so for immediate use (.22 vs. .61), replicating the results of experiment 1. The interaction of priming and temporal distance was significant ($Wald = 8.87, p < .01$)

Experiment 3 extended the previous experiments by replicating the results using different stimuli (i.e., hotel rooms) and additional dependent measures (i.e., separate evaluations of each alternative). As consistent with the results of experiments 1 and 2, participants primed by prestige, compared to those primed by thrifty, were more likely to choose the Grand Hyatt’s standard room for future use (.78 vs. .37) and evaluated it more favorably (5.03 vs. 4.32), but less likely to do so for immediate use (.22 vs. .56 and 4.28 vs. 5.00), which was evidenced by a significant interaction of priming and temporal distance ($Wald = 9.76, p < .01; F = 10.43, p < .001$).

Conclusion

Three experiments confirmed our prediction that temporal distance and priming interact to determine consumers' preference between a low-end model of a high-status brand and a high-end model of a low-status brand in a choice setting. Further, the effects were replicated when the category information was preceded by the specific description of the model and when separate evaluations of each alternative were employed as a dependent variable. Theoretical and managerial implications are discussed.

For more information, contact: amadeus@korea.ac.kr

Losing to Coke: Player-Controlled Versus Competitive Brands in Interactive Media

S. Adam Brasel, Boston College, USA*

Interactive entertainment has become one of the fastest-growing media sectors for advertising and brand placement. In-game advertising has grown at over 25% per year since 2003 (Goodman 2007), and interactive brand placement offers multiple routes of influence for consumer behavior. Research on interactive entertainment marketing remains sparse, however, with the majority of work focusing on passive brand placement. But what happens when the brands are placed on interactive objects within the scene? This research explores the perceptual and affective consequences of placing brands on interactive objects under player and opponent control within interactive entertainment.

Prior work suggests that brand exposure effects occur when they are relevant to consumer goals (Lee & Shavitt, 2006), and video game play is highly goal-driven (Clark & Duimering, 2006) with both metagoals of overall game performance and transient microgoals created by the constant vigilance of interacting with game content (Stewart & Pavlou, 2002). Goal-driven attentional effects are largely outside of conscious awareness or control (Allport 1993), and attention is guided towards goal-diagnostic stimuli and driven away from non-diagnostic stimuli (Yantis 2000). This suggests that brand placement on competitor objects in interactive media should enjoy strong visual attention, perhaps greater than brands placed on the object the consumer controls themselves (as interactive environments frequently entail response to incoming stimuli rather than self-observation). In addition, the Fundamental Attribution Bias and concepts of the extended self (Belk 1988) suggest that the consumer may view their own interactive object as an extension of themselves, and thus transfer affect generated by their object's game performance directly to themselves. In contrast, affect generated by competitor objects during the game experience will not be transferred to the self, and instead may target the brands placed on these competitor objects as a locus of attribution.

To explore these issues, a study utilized the racing videogame Forza Motorsport 3, and vector-paint artists created various branded paintjobs for a single make of car, thus controlling for difference in car performance. Sixty-seven participants were randomly assigned one of four branded cars (Coca-Cola, Apple, Best Buy, McDonalds), while experimenters controlled the other three cars via an internet connection (the participant assumed the other cars were controlled by the computer). The assistants were able to coordinate and vary their performance each race to ensure that the participant would place 1st, 2nd, 3rd, or 4th, with an equal distribution across participants ensuring a broad spectrum of participant performance vis-à-vis the competitor cars. Participants completed this race while being recorded by a desk-mounted eyetracker system to record specific measures of visual attention, while post-race survey measures recorded affective and cognitive measures.

Results show strongly differing effects for brands placed on the participant's car versus brands placed on competitor cars. Due to their strong goal-relevance, brands on competitor cars received a strong share of visual attention, as competitor cars captured attention for the majority of their time on screen. This time-on-screen for brands on competitor cars, in turn, was a significant predictor of brand recall and brand recognition. In contrast, brand placement on participant controlled-cars received comparatively little visual attention, as perception was focused on goal-relevant upcoming track signals and competitor cars. Even though brands on competitor cars were on-screen less than 1/6 of the amount of time as brands on participant cars, competitor car brands enjoyed significantly higher post-race recognition and recall.

Affect transfer from race experience to brands varied strongly based on placement. For brands placed on participant cars, little affective transfer took place. Participants internalized the performance of their car during the race, transferring positive and negative affect to themselves rather than the brand. For brands placed on competitor cars, however, negative affect transfer occurred when the competitor brand beat the player. Participants felt anger and frustration targeted at brands placed on competitor cars that finished in higher places than themselves. In contrast, for brands on competitor cars the participant beat in the race, a negative effect was revealed on perceptions of brand competence and efficacy. This effect was exacerbated for game experts in comparison to novices, where participants with more experience were more likely to generate negative affect for high-performing competitor brands.

These results suggest that brand placements on interactive competitive elements not under the consumer's control within interactive media can enjoy higher recall and recognition due to their goal relevance as opponents that must be beaten causes significant visual attention capture. At the same time, their nature as opposing elements can generate frustration and anger when the branded item "beats" the player, and perceptions of reduced brand efficacy or competence when the consumer "beats" the brand. Brands placed on objects under consumer control enjoy less strong recall, and little affective transfer, likely due to affect transfer to the consumer themselves and a reduced goal-relevance of the direct object under control in comparison to objects that must be interacted with.

For more information, contact: brasels@bc.edu

6.5 Individual Papers: Diamonds Are a Girl's Best Friend: Judgment and Decision-Making

Room: Cottonwood

Chair: Keith Wilcox, Babson College, USA

The Effect of Category Width on Choice Conflict

Gülden Ülkümen, University of Southern California, USA*

Selin Malkoc, Washington University in St. Louis, USA

In this research, we demonstrate the effects of categorization on decision conflict. Specifically, we show that being exposed to broad or narrow categorizations in a previous, unrelated task influences the conflict consumers experience in a subsequent choice task.

Previous research shows that various aspects of external categories can influence important decision outcomes in the same decision context, such as choice, decision difficulty and decision time. One aspect of categorization that has been shown to influence information processing is category width (CW), (Ülkümen, Chakravarti, and Morwitz 2010). Incidental exposure to narrow versus broad categorizations instigates a more multidimensional processing orientation in

subsequent, unrelated decisions. In contrast, participants exposed to broad categories base their attitudes on fewer pieces of salient information, and therefore become more susceptible to context effects.

In this paper, we extend previous research by examining the effects of CW on choice conflict. When choosing between two products, consumers feel more conflicted to the extent that they focus on the similarities between them. If consumers previously exposed to broad categorizations adopt the comparison orientation made salient by the environment, then they should focus on either similarities or differences between products. In contrast, if consumers previously exposed to narrow categorizations employ both salient and non-salient orientations, then we would expect them to consider both similarities and differences. Thus, we hypothesize that broad categorizers will take a longer time to decide, experience more choice conflict, and feel less confident about their choice when they are primed with similarities than differences. In contrast, for narrow categorizers, choice time, conflict and confidence are should not be influenced by comparison orientation. We test our predictions in four lab studies.

Study 1 had a 2 (CW: broad, narrow) x 2 (Focus: similarity, difference) between subjects design. Participants first completed the CW manipulation, where they responded to questions about themselves that differ in the number of response categories. For some participants, the response options constituted many, narrow categories (narrow condition), while for others, the response options comprised a few, broad categories (broad condition). Next, participants were primed with a comparison orientation by listing either similarities or differences between a pair of pictures (Markman and Gentner 1996). Participants then viewed pictures of two wristwatches and made a choice between them. Response time was recorded unobtrusively. The results suggest that in the Broad CW condition, participants took longer to make a choice when they focused on the similarities as opposed to the differences between the two watches. In contrast, in the Narrow CW condition, the focus manipulation did not influence participants' choice time.

The aim of study 2 was to examine whether the difference in choice time observed in the previous study is due to experienced conflict. Participants first completed the same CW manipulation as in study 1. Next, they were shown pictures of two wristwatches, and they were intruded to list either their similarities or differences, and to make a choice between them. We find that the conflict experienced during choice, and the decision confidence were influenced not only by the comparison orientation, but also by the width of previously encountered categories. In the Broad CW condition, participants took longer to choose, were less confident in their decision, and felt more conflicted when they focused on the similarities between two watches, than when they focused on their differences. However, these variables were not influenced by the focus manipulation in the Narrow CW condition. Moreover, conflict index mediated the interactive effect of similarity and CW on confidence.

In study 3 participants completed a different manipulation of CW (Shopping Task, Ülkümen et al 2010). After making a choice between several backpacks, participants were told their selection was out of stock and were offered an alternative backpack, which was either objectively similar to or different from their selection. We measured participants' attitudes toward the new backpack, and their consideration of similarities and/or differences while choosing. As before, we find that the focus manipulation influenced attitudes only in the Broad CW condition, such that participants liked the new offering more when they focused on its similarity to the original backpack, than when they focused on its difference. Moreover, in the Broad CW condition participants considered relatively more differences (similarities) when they were presented with the different (similar) backpack. The focus manipulation did not influence participants' consideration of similarities and differences in the Narrow CW condition.

In the last study, participants first completed the same CW manipulation as in the first two studies. Next, they were shown a furniture catalog and told to make a choice between two target chairs. We manipulated similarity perceptions

by varying the context. Viewing the two chairs in the context of other similar (different) chairs should direct participants¹ attention to the differences (similarities) between the two target chairs. Participants reported their decision confidence and conflict, willingness to pay for the two chairs, and their relative consideration of similarities and differences. The results on decision conflict and confidence replicated results from previous studies. Participants considered differences (similarities) more when the context primed them to focus on differences (similarities), but only in the Broad CW condition. We also found that in the Broad CW condition, the price difference between the two chairs was larger in the difference (vs. similarity) focus condition. As expected, the focus manipulation did not influence the price difference in the Narrow CW condition.

In four studies we show that the experienced choice conflict is significantly influenced not only by comparison orientation, but also by the width of categories consumers are exposed to prior to choice. Using multiple manipulations of similarity orientation, we demonstrate that consumers exposed to broad categorizations experience more choice conflict when a similarity (vs. difference) orientation is made salient. In contrast, consumers exposed to narrow categorizers consider both similarities and differences between products regardless of the salient comparison orientation.

For more information, contact: malkoc@wustl.edu

The Value Function for Time-Related Decisions

Anouk Festjens, K.U. Leuven, Belgium*

Sabrina Bruyneel, K.U. Leuven, Belgium

Siegfried Dewitte, K.U. Leuven, Belgium

Enrico Diecidue, INSEAD, France

Consumers make several time-allocation decisions every day: Should I go for the short waiting line occupied by an inexperienced cashier or for the longer one occupied by a practiced employee? Should I put myself in danger by exceeding the speed limit to get home early? Should I cross the road now or wait until that oncoming car has passed? Note that the outcome of this type of decisions is unpredictable and risky which makes the choice quite complicated. Yet, making efficient time-allocation choices under risk is becoming increasingly important in our society that suffers from ‘time amnesia’ (Leclerc et al. 1995, Okada et al. 2004). This means that for many members of our society, time is not just a scarce resource; it is *the* scarce resource. Despite the complexity and importance of time-related decisions, our current understanding of time-related decision making under risk remains rather limited. This paper aims at acquiring a better understanding of how time-related decisions under risk are made. This insight could aid consumers to improve the efficiency of their time-related decisions, as well as marketers, employers and governments which are frequent suppliers of this type of choices.

The most popular theory to capture monetary decision making under risk -prospect theory- will serve as the foundation to increase our understanding of risky decisions about time (Kahneman and Tversky 1979, Tversky and Kahneman 1992). The outstanding descriptive ability of prospect theory is due to its accommodation of the fact that consumers do not always behave conform the ‘rationality’ norms of standard economics. Specifically, prospect theory’s value function takes into account people’s loss aversion, diminishing sensitivity towards gaining and losing increasingly large amounts, and sensitivity to changes rather than absolute states (Kahneman and Tversky 1979, Thaler 1999).

Economists might be inclined to believe that the shape of prospect theory’s value function for monetary decisions is adequate to describe and predict risky, time-related decisions as well. This belief would follow from the economic rule

that time can always be expressed in its monetary equivalent, namely its opportunity cost (i.e. typically wage rate) (Becker 1965, Borjas 2010). However, prior research in consumer behavior revealed that when consumers process information in the context of time versus money, there are quantitative differences in how this information is used to arrive at judgments and decisions. For instance, in the context of sunk costs, the consideration of past investments has been found to be relatively weaker for time (Soman 2001). Furthermore, making decisions based on quick-and-easy heuristics rather than on a thorough analysis of the available information seems to gain prominence when one evaluates time rather than money (Saini and Monga 2008). Finally, people project greater slack in time (relative to money), thereby leading to differential discounts in their future outlay of time versus money (Zauberman and Lynch 2005). In sum, research has found significant dissimilarities in cognitive processes underlying time and monetary decision making, which might call for an adjustment of the shape of the value function for the specificities of the resource time.

The present paper aims at testing whether the shape of prospect theory's value function (for monetary decisions) is also adequate to describe and predict time related decision making under risk. To achieve this, we elicited value functions for time *and* money for 147 respondents in our sample. We conducted an experiment using a conversion rate 12€= 60 min. The two elicitations (time and money) were counterbalanced and separated by one week. We used the state-of-the-art technique (Abdellaoui et al., 2008) to elicit the value functions. The method is based on the repeated elicitation of certainty equivalents for two-outcome prospects. For example, in the time-stage, the certainty equivalent was determined of a gamble with a 50% chance to leave the experiment 30 min earlier than planned but also with a 50% chance to leave the experiment at the planned time. We compared the shape of the value function for both resources at the aggregate (i.e. by means of a paired t-test) and the individual level (i.e. by means of correlations).

Results indicate that *on average*, value functions for both resources are highly similar. Specifically, for both time and money, the average gain function is linear, the average loss function is slightly, but significantly concave, and the average loss aversion index is about two. Paired t-test further reveal that loss aversion, mean curvature of the gain function, and mean curvature of the loss function do not significantly differ for time and monetary outcomes. Interestingly however, zero correlations between time-related and monetary value function parameters indicate that *individual* time-related and monetary decisions are driven by different underlying processes. In sum, it seems that while the old adage 'time is money' holds on the level of the whole society, cognitive processes underlying time vs. monetary decisions within one individual are governed by different processes. This surprising result may reconcile the economic 'time is money' adage and the findings in consumer research that 'time isn't money', since economists typically work with a 'representative (i.e. average)' consumer and consumer researchers focus on individual decisions.

As a follow-up analysis, we related two fundamental psychological systems (Gray 1987), namely the degree of approach (i.e. moving to something desired) and avoidance (i.e. moving away from something unpleasant) orientation, to the parameters of the value functions of both resources. Note that the Behavioral Approach/Inhibition System scales (Carver et al. 1991) were included in our experiment to achieve this aim. We found that avoidance (and approach) orientation interacts with resource type for some of the parameters. For instance, avoidance orientation was positively correlated with the curvature of the loss function for money, but not for time. By doing this, we are trying to increase insight in differences in monetary and time-related decision making at the individual level.

For more information, contact: anouk.festjens@econ.kuleuven.be

Product-Agnosia: How Increased Exposure Reduces Distinctiveness between Choices

Jayson Jia, Stanford University, USA*

Sanjay Rao, Stanford University, USA

Baba Shiv, Stanford University, USA

Life is full of difficult decisions. Apple or pear; tweed or twill; Nike or Adidas; the list of common yet frustrating comparisons between distinct choices is innumerable. When making difficult choices between options, we attempt to resolve our indecision by obtaining more information and engaging in more careful comparative processing (Petty and Cacioppo 1986, Russo 1977). Often, this occurs in the form of increased visual exposure, whether we are standing in a department store glancing back and forth between the two shoes in our hands, or browsing through ‘additional views’ on websites such as zappos.com. We propose that this common strategy can sometimes backfire, and that increased visual exposures during comparative choices can make options more confusing, less unique, and less attractive.

Although increased visual exposure to a consideration set provides more information about product features which abets positive product differentiation (Carpenter, Glazer, and Nakamoto 1994), it also carries a detrimental effect on information processing via perceptual focus. Specifically, increased viewing of choice objects leads to more local-level processing and less global-level processing. Since products are often distinguished through global-level features such as style and brand (Aaker 1997), increased focus on a product’s local-level features can result in a relative decline in uniqueness and attractiveness. Conceptually, such a shift in perceptual focus is akin to comparing brush strokes in a painting rather than the overall pictures, or contrasting individual trees instead of entire forests. Across three studies, we explored how more visual exposures can generate product-agnosia (the loss of ability to distinguish between products) through shifts in perceptual focus.

Study 1a documented the basic effect of number of visual exposures on a product comparison between two pairs of shoes (Ralph Lauren vs. Sperry boat shoes). Subjects ($n=105$) were randomly assigned to one of two conditions. In the single exposure condition, subjects were exposed to one picture of each shoe. In the multiple exposure condition, subjects were exposed to seven unique pictures of one shoe from multiple vantage points (e.g. top-down, side-view, etc), followed by seven unique pictures of the other shoe (the order of presentation of the brands was randomized). The pictures were obtained from a leading online retailer (zappos.com) to simulate relevant choices that people make in a real purchasing context, which like many other websites has the option of viewing more pictures of products from “additional views”.

We found that similarity ratings of the shoes were higher in the multiple exposure condition than in the single picture condition ($p < .05$). In other words, the products became relatively less distinct after multiple visual exposures.

Study 1b expanded the findings of Study 1a to another product category (Dakine vs. Victorinox duffel bags) and contained a thought listing task to explore the mechanism driving product-agnosia. Participants ($n=102$) were randomly assigned to the single-exposure (1 picture of each bag) or multiple-exposure condition (7 unique pictures of each bag) using the same experimental paradigm as Study 1a. At the end of the survey, participants were also asked to list their thoughts about the products presented. The thoughts were coded for perceptual focus (local vs. global-level) by two independent coders ($\alpha = .98$).

Consistent with Study 1a, we found that perceptions of product uniqueness ($p < .05$) and predicted liking ($p < .1$) was lower in the multiple exposure condition. Participants level of interest in engaging in the product comparison was also lower ($p < .05$). The thought listing task showed no difference in total number of thoughts between the two conditions ($p = .39$) but showed a higher proportion of local-level thoughts ($p < .05$) in the multiple exposure condition. Thus, in addition to providing a further demonstration of the main effect, Study 1b yielded evidence that increased visual exposure can lead to a shift to more local and less global –level processing.

In *Study 2*, we demonstrated the causal link between local and global –level processing and the product-agnosia effect by directly manipulating perceptual scope using a 2 (global, local processing) X 2 (single, multiple visual exposures) ANOVA design. In Part 1, we induced global versus local processing using a procedure similar to Friedman et al (2003). Participants (n=124) were shown seven maps of different American states sequentially, each on a different page. In the global condition, subjects were asked to look at the overall features of each state map, whereas in the local condition, subjects were asked to focus their attention on a marker that pointed to a city near the center of the map. In Part 2, we used the same single versus multiple exposures experimental paradigm as in Study 1a (as well as the same products and images).

We found significant interactions for perceptions of uniqueness, attention-grabbing, predicted liking, and choice strategy (p 's < .05). Under induced- local processing, increased visual exposures resulted in an analogous pattern of results as Study 1, where the shoes became less distinct, attention-grabbing, and attractive, and participants were less likely to engage in a global-level choice strategy ('focus on style'). But under induced global processing, we found the opposite trend, and that increased visual exposures resulted in the shoes being rated as more distinct, attention-grabbing, and attractive, and a global-level choice strategy was more prevalent.

Overall, the persistence of the effect after inducing local processing but its reversal after inducing global processing provides evidence that the product-agnosia effect is driven by perceptual scope. Together, the results of Studies 1 and 2 also suggest that the default perceptual scope in our task was local processing. When one's perceptual scope is local and focused on narrow details, new information through multiple visual exposures were disadvantageous for ratings of distinctiveness and predicted liking. However, when one takes a metaphorical step back under global processing, increased visual exposures begin to have benefits for a product's perceived distinctiveness and predicted liking. These effects have numerous implications for marketing strategy, product positioning, and optimal consideration set construction: For example, generic or entry brands may seek to induce product-agnosia to better compete with premium brands, while brands that desire to maintain unique positioning would do best to carefully manage the perceptual scope of their own advertising.

For more information, contact: jayson.jia@stanford.edu

Far Away or So Close: The Effect of Target Ambiguity and Processing Mindset on Judgment

Keith Wilcox, Babson College, USA*

Juliano Laran, University of Miami, USA

Sankar Sen, Baruch College, USA

Imagine that you are considering the purchase of a new luxury watch. As you contemplate the purchase, it occurs to you that you could probably purchase a similar looking counterfeit version online. Would the presence of the counterfeit affect your decision to buy the genuine watch? The widespread presence of anti-counterfeiting efforts suggests that it will. Additionally, research demonstrates that contextual information, such as the availability of the counterfeit, can have a significant impact on judgment.

One important determinant of the effect of contextual information on judgment is processing mindset (Förster, Liberman and Kuschel 2008). It is generally assumed that global processing results in assimilation, whereas local processing results in contrast. In this research, we demonstrate that global processing and local processing are not associated with a specific effect on judgment (i.e., only assimilation or only contrast). We show and that both global and

local processing can result in assimilation and contrast depending on the level of ambiguity in the target being evaluated.

When people process at a global level, they focus on similarities between a target and a contextual standard, which makes standard consistent cognitions accessible (Mussweiler 2003). When people process at a local level, they focus on dissimilarities, which makes standard inconsistent cognitions accessible. For instance, consider a person comparing a luxury product (the target) to a counterfeit version (the standard). Global processing would make cognitions consistent with the counterfeit accessible (e.g., low prestige), while local processing would make cognitions inconsistent with the counterfeit accessible (e.g., high prestige).

We propose that the effect of this accessible information on judgment will depend on the level of target ambiguity. When the target is ambiguous, contextual information is integrated into the evaluation of the target (Stapel and Winkielman 1998). Thus, global processing should lead standard consistent cognitions to become integrated into the target, resulting in an assimilation effect. Local processing should lead standard inconsistent cognitions to become integrated into the target, resulting in a contrast effect. Unambiguous targets, however, are too inflexible to allow information to become integrated into their evaluation (Mussweiler and Damisch 2008). Consequently, contextual information serves as a frame of reference for judging unambiguous targets, which shifts evaluations away from the information (Herr, Sherman and Fazio 1983). Thus, global processing should lead to standard inconsistent evaluations (i.e., a contrast effect), whereas local processing should result in standard consistent evaluations (i.e., an assimilation effect).

This conceptualization is investigated in five studies where participants evaluated a target product with or without the knowledge that a similar, but inferior product is available (i.e., a lower standard). When the target is ambiguous, we expected global processing to result in assimilation and decrease target evaluations when the lower standard is available. Local processing should result in contrast and increase target evaluations when the lower standard is available. When the target is unambiguous, we expected the opposite pattern of results. Global processing should increase target evaluations when the standard is available, but local processing should decrease evaluations.

In study 1a, we first manipulated processing mindset through a writing task. Then, as part of an unrelated study, participants were presented with an ambiguous description of a Louis Vuitton watch and asked to indicate their purchase intent with or without the knowledge that a counterfeit version was available. As expected, participants who processed globally were less likely to purchase the genuine watch when a counterfeit was available compared to when one was not available. Participants who processed locally were more likely to purchase the watch when a counterfeit was available. Study 1b replicates the results of study 1a using Lexus as the target brand and a similar looking Hyundai as the standard.

In study 2a, we replicated the findings of study 1a while also providing initial evidence for the proposed process. Specifically, we demonstrate that local processing makes the Louis Vuitton watch appear to be more exclusive (i.e., standard inconsistent) when the counterfeit is available, whereas global processing makes the watch appear to be less exclusive (i.e., standard consistent) when the counterfeit is available. Additionally, we show that exclusivity mediates the influence of processing mindset on purchase intent. Study 2b replicates the results of study 2a using an Apple iPad as the target brand and a Chinese brand with similar functionality as the standard. Thus, by focusing on functionality we changed the comparison dimension from exclusivity to quality. We find that local processing increases perceptions of the iPad's quality (i.e., standard inconsistent) when the Chinese version is available, whereas global processing decreases perceptions of the iPad's quality (i.e., standard consistent) when the Chinese version is available.

Study 3 shows that target ambiguity moderates the effect of processing mindset on evaluation. Specifically, the results demonstrate that when participants evaluate an ad for Gucci sunglasses that is ambiguous, the results replicate the findings of previous studies. However, when participants evaluate a similar ad that is unambiguous in terms of exclusivity (i.e., the price is displayed), processing mindset has the opposite effect on evaluation. Specifically, local processing makes the sunglasses appear to be less exclusive when a counterfeit version is available, whereas global processing makes the sunglasses appear to be more exclusive when a counterfeit version is available. Additionally, exclusivity mediates the influence of processing mindset on evaluation in both the ambiguous and unambiguous conditions.

A very limited amount of research has demonstrated that processing mindset can influence assimilation and contrast in social judgments (Förster et al. 2008). This research extends these findings by showing that processing mindset results in assimilation or contrast when people compare two products, even when they are not told to make explicit comparisons. Importantly, this is the first research to demonstrate that target ambiguity is a key determinant of the effect of processing mindset on judgment.

For more information, contact: kwilcox@babson.edu

6.6 Individual Papers: Ain't Misbehavin': Morality, Power, and Deception

Room: Mesquite 2

Chair: Miao Hu, Northwestern University, USA

Removing Consumers' License to "Misbehave"

Nicole Robitaille, University of Toronto, Canada*

Nina Mazar, University of Toronto, Canada

Recent research suggests that individuals engage in licensing behaviors when their moral self-image deviates positively from its equilibrium (Jordan, Mullen & Murnighan, 2011, Mazar & Zhong, 2010, Khan & Dhar, 2006). That is, when individuals feel they have done something good and feel a boost to their moral self-image, it seems their action has earned them moral credits that 'license' their subsequent engagement in more self-interested, immoral or asocial behaviors (which otherwise would have discredited the individual). The same is true vice versa: If individuals have behaved in a way that lowers their self-image, they are subsequently more likely to engage in compensatory behavior to reestablish a positive view of themselves.

It seems counterproductive to oneself and societal welfare if every moral action is followed by a license to perform an immoral action. While the existing research has shown convincing evidence for moral regulation, little is known about what can be done to prevent consumer licensing. Thus, in this paper we test a manipulation aimed at counteracting the licensing effect. In particular, we hypothesized that one of the reasons for the licensing and compensating behaviors is the portability of people's feelings across different decision-making situations. Building upon previous research on psychological closure (Beike & Wirth-Beaumont, 2005), across two studies we tested whether inducing feelings of closure following an initial moral or prosocial behavior would alleviate positive or negative emotions associated with an act, thereby remove individuals' 'license to misbehave'.

In study 1, participants were randomly assigned to write on a sheet of paper about an environment-friendly or environment-unfriendly behavior they had engaged in within the last two weeks, and then to either return their self-report to the experimenter as is (no closure) or enclosed in an envelope (closure). Previous research has shown that

physically enclosing emotional stimuli in an envelope alleviated participants' associated negative emotions (Li, Wei & Soman, 2010). Thus, we hypothesized that enclosing one's self-report should diminish any licensing or compensating behaviors. Participants then completed an ostensibly unrelated second survey, which was described as a website evaluation. Participants were given the chance to visit www.freerice.com, a web site that donates 10 grains of rice to help fight world hunger for every multiple-choice question an individual answers correctly. Participants were instructed to 'test' the website for as long as they wanted. We treated the amount of rice donated as a proxy for time and effort participants were willing to expend to help others. The results of Study 1 support the prediction that closure can remove individuals' licensing behavior. Consistent with previous studies on licensing and compensation, we found that individuals that recalled environment-friendly behaviors subsequently donated significantly less compared to individuals that recalled environment-unfriendly behaviors. However, consistent with our hypotheses, once individuals enclosed their behaviors in an envelope this effect reversed; Participants that recalled environment-friendly behaviors subsequently donated significantly more than those that recalled environment-unfriendly behaviors. In addition to changes in rice donation, we found that individuals that placed their environmental behaviors in an envelope rated themselves as less aroused (i.e., more calm and at peace) as compared to those that did not place their behaviors in an envelope. This supports the idea that those with closure felt more alleviated from their emotions as compared to those without closure.

In study 2, after recounting their previous environment-friendly, unfriendly, or neutral (control) behaviors (with and without closure), measures of self-concept, feelings of closure, mood and arousal are collected (prior to the website evaluation). Study 2, which is currently being run, is meant to replicate and extend our results by demonstrating the underlying mechanism through which closure removes licensing behaviors. We predict that individuals' licensing and compensating behaviors will be mediated by changes in their self-concepts. In addition, we predict that feelings of psychological closure will mediate the reversal of these effects for individuals that enclosed their scenarios, such that physically enclosing one's recalled positive and negative behaviors will reduce the initially experienced boost and reduction in self concept, respectively. We expect this study to be complete by the time of the SCP conference.

Licensing behavior occurs both at the corporate as well as the individual level, and little is known about how to counteract such an undesirable effect. Our results suggest that if we help individuals feel a sense of closure following a good deed (such as engaging in corporate citizenship or social responsibility) we can curb the licensing effect. We believe these findings can guide the design of small but powerful interventions to improve everyday behavior and increase societies' welfare in the long run.

For more information, contact: nicole.robaille08@rotman.utoronto.ca

Characterizing Deception by Deviation: The Moderating Role of Perspective-taking

Guang-Xin Xie, University of Massachusetts Boston, USA*

Hua Chang, Drexel University, USA

Namika Sagara, Duke University, USA

Recent research on deception suggests that people sometimes cheat smartly: they cheat by a little to gain some benefits without hurting positive self-perceptions (Mazar, Amir, & Ariely, 2008; Shu, Gino, & Bazeman, 2011). Deceivers can nonetheless feel uncomfortable if the deviation from fact falls outside an acceptable range of dishonesty (Argo & Shiv, 2012). In the present research, we examine deceptive behaviors from the receiver's vantage point - to what extent does perceived deception depend upon the degree of deviation?

We develop the theoretical argumentation based on two streams of research: 1) deceptive information manipulation (e.g., McCornack, 1992), and 2) social perspective-taking (e.g., Davis, 1983; Galinsky & Mussweiler, 2001). It is hypothesized that the customer-perspective can induce a defensive mindset whereby honesty becomes a salient “black-or-white” standard. As long as marketers cheat, they are considered deceptive despite the degree of deviation. In comparison, the marketer-perspective is more likely to concur with activation of a continuous judgmental basis. Because a small deviation is more negligible and inconsequential, it is less deceptive than a large deviation.

Theoretical Background

Information manipulation theory (McCornack, 1992) posits that deceptive messages stem from covert violations of the Grice’s cooperative principles in conversations: quantity, quality, relevance, and manner. More specifically, Buller and Burgoon (1996) propose that “...the larger the deviation and the more dimensions entailed, the more likely that suspicion and the possibility of deceit will be entertained” (p. 96). In contrast, Levine (2001) argues that gradations in message features do not necessarily translate into degrees of deceit, because some people evaluate deception using a dichotomous (i.e., deceptive or not) rather than a continuous standard (i.e., more or less deceptive). An interesting question arises: are small lies as deceptive as blatant lies because both violate the quality maxim?

Perspective-taking is particularly relevant in addressing the question above. Perspective-taking “allows an individual to anticipate the behaviors and reactions of others, therefore facilitating smoother and more rewarding interpersonal relationship” (Davis, 1983, p. 115). We speculate that perspective-taking can influence perceived deception of small vs. large deviation via two mechanisms. First, perspective-taking can alter attribution foci: perspective-takers tend to ascribe negativity to situational rather than dispositional attributes (Galinsky & Ku, 2004). When consumers take the marketers’ perspective, they may associate small deviation with situational norms rather than dispositional dishonesty. Thus, a small deviation may not be deceptive. Second, perspective-taking leads to a merging of self and other, the notion of “oneness” (Batson et al., 1997; Davis et al., 1996). The self-other overlapping is manifested by ascribing a greater percentage of self-descriptive traits to the other. As Mazar et al. (2008) suggest, even honest people sometimes cheat, as long as the deviation is small enough to maintain positive self-concepts. If consumers think from marketers’ perspective and marketers just cheat a little, consumers may be more tolerant because they may do the same as marketers.

Method and Results

In four experiments, participants read a vignette about an interaction between a car salesperson and a customer who converse about the markup rate of a particular car of interest. The salesperson tells the customer a false rate that deviates a little (7.5%) or a lot (15%) from the fact (7%). Perspective-taking was manipulated, primed, and/or measured across experiments. In experiment 1, participants made veracity judgments of the salesperson from the perspective of the salesperson or the customer. Perspective-taking was manipulated by asking them to imagine “as if you were that customer (or salesperson), looking at the situation through his/her eyes and walking through the situation in his/her shoes” (adapted from Galinsky et al., 2008). In experiment 2, participants took the salesperson-perspective. In addition, they either read a short insert of the AMA Code of Ethics on honesty or not. In experiment 3, participants were first primed by a role-playing task, in which they took the role as a salesperson and reported what rate they would tell the customer in an open-ended question. After a filler task, they read the same vignette and then rated how deceptive the salesperson was. Experiment 4 used the same design as experiment 3, except a small deviation (7.5%) was compared to a much larger deviation (21%). The dependent measures included the perceived deceptiveness, perceived acceptability, and attitude toward the salesperson.

Taken together, the results show that when participants took the salesperson's perspective, they saw a difference between a small and large deviation in terms of perceived deceptiveness. When they took the customer's perspective, the small and large deviation was not significantly different. In contrast, acceptability and attitude vary by perspectives, but not the degrees of deviation. Mediation analyses using the process measures reveal that the observed effect can be ascribed to salience of intrinsic honesty and shift of tolerance level.

The present research suggests that a small deviation may or may not be considered violating "the rule of honesty", depending upon the message receivers' "perspective-" (i.e., what norms are applicable) and "-taking" (i.e., the salience of the moral rightness). The findings not only address a void in the literature, but also shed some light on an important theoretical inquiry about how consumers recognize, categorize, and ultimately characterize deception. In particular, this research extends the information manipulation theory by demonstrating the conditional effect of the deceiver's covert violation of the quality maxim. It also adds insights to the perspective-taking literature by differentiating the intrinsic and extrinsic anchors.

For more information, contact: vincent.xie@umb.edu

Indulging the Self: The Impact of Luxury Consumption on Self-Esteem

Mario Pandelaere, Ghent University, Belgium*

Liselot Hudders, Ghent University, Belgium

The current project deals with the effects of luxury consumption on self-esteem. Luxury products offer both hedonic and psychological benefits to consumers (Vigneron & Johnson, 2004). The hedonic benefits derive from the fact that luxury products offer an excellent quality to the consumer and deliver pleasure and sensory gratification to the self. Their psychological benefits lie in their ability to signal success, wealth and social achievement to others (Rucker & Galinsky, 2009). Due to its symbolic value, luxury consumption has often been associated to conspicuous consumption – a pattern of consumption that is aimed at signaling one's status through one's possessions.

Conspicuous consumption is often viewed as a way to compensate for low self-esteem or to bolster self-esteem from self-esteem threats. First, several studies indicate that materialism – the unbridled acquisition of material goods – is both related to an interest in conspicuous consumption (Wong, 1997) and to low self-esteem and feelings of insecurity. Second, people become more interested in status products when their self-esteem is threatened; this, however, is not the case when they have other means to ward off self-esteem threats (Sivanathan & Pettit, 2010). Third, activating feelings of powerlessness – a presumable self-esteem threat – also increases the interest in conspicuous consumption (Rucker & Galinsky, 2009). In addition, feeling powerless makes people value the status signaling aspect of luxury consumption more than the superior quality that is associated with it.

While previous studies on luxury consumption have extensively investigated consumers' *perceptions* of luxuries and the *motivations* behind luxury consumption, very few studies have studied the actual *effects* of luxury consumption. Sivanathan and Pettit (2010) found that merely *thinking* about owning a high-status car (vs. a non-status car) is sufficient to bolster self-esteem from subsequent self-esteem threats (viz. negative feedback regarding task performance). Zhong and Mitchell (2010) found that frequency of *leisure* consumption increases satisfaction with one's leisure time and with one's social life, which in turn affects subjective well-being. However, it is not clear whether their respondents would have considered the various leisure activities the researchers focused on (e.g. visit to movie theatre, sports game, concert) as luxurious. The current paper investigates the effect of luxury consumption on self-esteem. The

results of two experimental studies suggest that acquiring a luxury branded fast-moving consumer product (i.e., chocolate or fruit juice) positively affects an individual's self-esteem level.

In Study 1, undergraduates were asked to participate in a taste test. They were told that we needed some participants testing luxury fruit juices whereas we needed other participants testing common fruit juices. We also manipulated why some participants received a luxury brand. Half of the participants had to throw a dice to determine which type of juice they would sample. For the other half of participants, the assignment was done by the experimenter (seemingly, as the experimenter decision was also determined randomly, albeit unknown to participants). Possibly, being assigned to luxury brands by someone else may have a stronger effect as participants may think it reflects the appreciation of the experimenter. This aspect was obviously eliminated when luck (i.e. outcome of a dice throw) determined assigned to luxury or common fruit juices. Before participants tasted the fruit juices, we had them fill out some scales "in order to control for potential personality influences on fruit juice ratings". This included the Rosenberg self-esteem scale. The results of the first experimental study show that respondents who received a luxury fruit juice brand appear to have a higher self-esteem compared to respondents who received a non-luxury fruit juice brand. Interestingly, we obtained this positive effect of luxury consumption on self-esteem, irrespective of how participants had received the luxury fruit juice (experimenter decision or sheer luck).

Study 2 tested whether the effect on luxury consumption on self-esteem is driven by the sensory gratification from consuming a luxury brand or, rather, from a symbolic transfer of status associated with a luxury product to the self, due to *owning* the luxury product. All participants received the same product (a small piece of chocolate, in wrapper) and were told that the product was a luxury product that was very expensive or a cheap, mass produced piece of chocolate. As nobody knew the brand, the manipulation was credible. Because study 1 had shown that it didn't matter how participants had received the luxury product, all participants received the luxury or cheap chocolate by random assignment. Importantly, the current study manipulates the timing of the self-esteem measurement. Either participant filled out the various scales before tasting (when they still *owned* the product) or after tasting (when they had *consumed* the product). As in study 1, we observed higher self-esteem scores when participants thought they had received a luxury product rather than a cheap product. However, this effect was moderated by timing of self-esteem measurement. In particular, we observed higher self-esteem scores when participants had received a luxury product but had not yet consumed it. After consumption, we observed similar self-esteem ratings for participants who had seemingly tasted an expensive chocolate and for participants who had seemingly tasted cheap chocolate. It is important to note that the appreciation for the chocolate itself was higher in the luxury condition than in the cheap product condition. This rules out that, after consumption of a luxury chocolate, lower self-esteem ratings were observed because participants had been disappointed by the quality of the chocolate.

Previous studies had already documented higher interest in luxury consumption after self-esteem had been threatened. However, no study had investigated whether actual luxury consumption is able to lift self-esteem. Our studies show it does. However, after consumption, the positive effect on self-esteem is gone. This is consistent with the idea that self-esteem benefits from the symbolic rather than from the superior hedonic qualities of luxury products. It also implies that people with bruised self-esteem would rather opt for luxury consumption of durable goods (rather than fast-moving consumer goods or experiences) as these goods are not immediately consumed and, thus, can offer their symbolic benefits over an extended period of time.

For more information, contact: Mario.Pandelaere@UGent.be

Experience versus Expectations of Power: A Recipe for Altering the Effects of Power on Consumer Behavior

Miao Hu, Northwestern University, USA*

Derek D. Rucker, Northwestern University, USA

Adam D. Galinsky, Northwestern University, USA

Power— defined as the capacity to control one's own and others' resources and outcomes— is one of the most ubiquitous psychological forces in social settings (Keltner, Gruenfeld & Anderson, 2003). The current research explores how both consumers' state of power and their focus can influence consumer preference for status-related products and depth of information processing. When focused on the experience of powerlessness, as opposed to power, a state of powerlessness leads to a preference for status-related products, replicating past research (Rucker & Galinsky 2008; 2009). However, we put forth a novel hypothesis that, when focused on the expectations or associations of power (i.e., characteristics and stereotypes associated with power), a state of high power may lead to a greater willingness to acquire status-related products. Similarly, when focused on the experience of power, it is predicted that, replicating past research (Briñol et al., 2007), powerless people will process information more carefully compared to powerful people. However, when focused on the expectations of power, it is predicted that the powerful people should process information more carefully compared to powerless people.

An expectation-confirmation perspective is offered as the foundation of this novel prediction. Specifically, it seems that people develop and hold different expectations of people who have low versus high power (see Magee & Galinsky, 2008). Elsewhere it has been shown that expectations shape people's interpretation of social events and also people's behavior to conform to existing expectations and stereotypes (Humphrey, 1985; Kipnis, 1972). In a similar vein, we suggest that focusing people in a low or high power state on the expectations associated with a low- or high- power position will lead them to behave in a manner that meets those expectations. Five experiments tested this novel hypothesis.

Experiment 1: The Expectations of Power. The first experiment assessed the expectations people naturally hold towards different behaviors related to power, such as the desire for status and the depth of information process. Participants saw descriptions of behaviors related to status consumption and information processing and were asked to identify if these behaviors were expected from either powerful or powerless people. Results showed that participants rated the behavior of purchasing status products and the processing information carefully as more consistent with powerful people compared to powerless people ($p < .01$).

Experiment 2a and 2b: Power and Status Products. This set of experiments tested the hypothesis that focusing on the experience versus expectations of power will have different influences on the evaluation of status products.

Experiment 2a adopted a 2 (level of power: high vs. low) \times 2 (focus: experience vs. expectations) plus one baseline condition between-subject design. Participants' level of power and focus were manipulated through an episodic recall task adapted from Galinsky et al. (2003). Subsequently, participants were asked to evaluate three status-related products. Results revealed a significant 2-way interaction between power \times focus for the experimental conditions ($p < .001$) such that when focused on the experience of power, low-power participants had a higher willingness to pay for the status products compared to high-power participants ($p = .04$). In contrast, when focused on the expectations of power, high-power participants had a higher willingness to pay compared to low-power participants ($p < .001$), consistent with people's expectations as shown in experiment 1.

Experiment 2b adopted a 2 (level of power: high vs. low) \times 2 (focus: experience vs. expectations) \times 2 (brand status: high- vs. low- status) between subject design. Participants' level of power and focus were manipulated in a role-play

task (see Dubois et al. 2010; Rucker et al. 2011). Subsequently, participants were asked to identify their purchase intentions for either a BMW or a Toyota. Results revealed a significant three-way interaction between power, focus, and brand status ($p = .02$). For participants evaluating a high-status brand (BMW), there was a significant two-way interaction between power and focus ($p = .003$) such that among participants who focused on the experience of power, low-power participants showed a higher purchase intention compared to high-status participants ($p = .02$). In contrast, among participants who focused on the expectations of power, high-power participants had a higher purchase intention compared to low-power participants ($p = .04$). No effects were found for participants who evaluated a Toyota ($F < 1$).

Experiment 3a and 3b: Power and Information Processing. This set of experiments tested the hypothesis that focusing on the experience versus expectations of power has different influences on information processing.

Experiment 3a adopted a 2 (power: high vs. low) \times 2 (focus: experience vs. expectations) between-subject design. After manipulating power and focus, participants rated two job candidates that differed in the strength of their profiles. A discrimination score was calculated by subtracting participant's evaluation of the weak candidate from that of the strong candidate. Results revealed a significant power \times focus interaction ($p < .001$) such that when focused on the experience of power, low-power participants showed greater discrimination compared with high-power participants ($p = .01$). In contrast, when focused on the expectations of power, high-power participants showed greater discrimination than low-power participants ($p = .03$).

Experiment 3b adopted a 2 (power: high vs. low) \times 2 (focus: experience vs. expectations) \times 2 (argument strength: strong vs. weak) between-subject design in which power and focus were manipulated as in experiment 2b. Participants evaluated an ad for a snack that differed in argument strength. Results revealed a significant three-way interaction between power, focus, and argument strength ($p = .012$). In the experience conditions, low-power participants liked the snack more after receiving strong arguments than weak arguments ($p = .003$) while high-power participants did not show any difference ($F < 1$). In the expectation conditions, high-power participants liked the product more after strong compared to weak arguments ($p = .02$) while no difference was found among low-power participants ($F < 1$).

Conclusion and Contributions. Across experiments, the focus associated with power created different effects on consumers' desire for status products and the depth of information processing. These findings add another important dimension to the research of power and consumption.

For more information, contact: m-hu@kellogg.northwestern.edu

6.7 Conversations: Social Influences

Room: Mesquite 1

Jonah Berger, University of Pennsylvania, USA

Michael I. Norton, Harvard Business School, USA

Katherine White, University of Calgary, Canada

7.1 Symposium: What Determines Justifiability? The Psychology of Justification

Room: Four Seasons Ballroom 1

Chair: Manoj Thomas, Cornell University, USA

When Guilt Guides Us to the Lap of Luxury

Kelly Goldsmith, Northwestern University, USA

Margarita Gorlin, Yale University, USA*

Ravi Dhar, Yale University, USA

Consider a consumer who is choosing between two expensive pairs of shoes. Further imagine that prior to choosing a pair, she starts experiencing guilt. How would this consumer's guilt affect her choice? While it is now well established that guilt can serve a self-regulatory function, increasing self-control and inhibiting preference for more hedonic options (Amodio, Devine and Harmon-Jones 2007; Zemack-Rugar, Bettman and Fitzsimmons 2007) relatively little is known about how the activation of guilt will affect choices among indulgent options. For example, would this person be more or less likely to choose the more expensive pair of shoes in comparison to a person who was not feeling guilty?

This paper explores how a choice between two indulgent or luxury options is impacted when guilt is incidentally activated prior to the choice. Prior work has shown that unrelated emotions (i.e., guilt) may be carried over and affect behavior outside of awareness (Lerner and Keltner 2000; Lerner et al. 2004). We draw from research on guilt and behavioral decision theory to propose that when guilt is primed, consumers will experience an increased need to justify their decision (Dhar and Wertenbroch 2000; Kivetz and Simonson 2002; Okada 2005; Strahilevitz and Myers 1997). Because options providing maximum luxury may be easier to justify when they offer the consumer a special or unique peak experience (Dhar and Simonson 1999; Goldsmith and Dhar 2010; Kapner 2009) we argue that consumers primed with guilt will be more likely to choose the option in the set that offers maximum luxury (e.g., a more expensive special treat) than consumers for whom guilt is not activated. Thus we predict a counter-intuitive effect of guilt on choice: priming guilt can increase choice of more expensive, luxury options.

We test our predictions in four studies. Study 1 tests for our proposed effect. Using non-conscious guilt priming (sentence scrambles; Goldsmith, Kim and Dhar 2010), we manipulate if guilt is activated prior to a choice between two luxury goods (two entrée courses at a high priced restaurant), one being a more expensive and indulgent than the other (a higher priced entrée special). Supporting our central claim, we observed that priming guilt increased choice of the more expensive option ($P_{guilt} = 72\%$, $P_{control} = 53\%$, $p < .05$). Study 2 demonstrates an important boundary condition for this effect. By manipulating both guilt (versus control) and the product category (a choice between two indulgent chocolate bars versus a choice between two utilitarian highlighter sets), we show that guilt increases choice of the option offering maximum luxury only when the product category is associated with indulgence. In line with our predictions, we find choice of the more expensive chocolate bar increases with guilt ($P_{guilt} = 26\%$, $P_{control} = 9\%$, $p = .02$); however, guilt has no effect on choice of the more expensive highlighter set ($P_{guilt} = 6\%$, $P_{control} = 13\%$, $p = n.s.d.$; guilt * product category interaction: $p = .04$). These results help to rule out an alternate account for the pattern of results in Study 1 by demonstrating that guilt does not facilitate a mindset that reduces barriers to spending regardless of the product category (Huber, Khan and Dhar 2007), the effect is specific to product categories associated with indulgence, where the justification process is more likely to operate.

Testing for the mechanism behind this effect, Study 3 manipulates the salience of the justification for the more expensive good (e.g., quality ratings are provided and made focal to participants), and assesses how guilt and the salience of this justification affect consumers' interest in maximum luxuries. The results again demonstrate that guilt

increases interest in maximum luxuries (dependent measure: a choice between two luxury hotel stays; $P_{guilt} = 71\%$, $P_{control} = 42\%$, $p = .02$). Additionally, we observe that when the justification for the maximum luxury is made salient to those in the control condition, there is an analogous effect on choice (choice of the maximum luxury increases significantly; $P_{control} = 62\%$, $p < .05$). As the effect of guilt and justification salience is non-additive, this suggests that those primed with guilt were already focused on the relevant justification for the maximum luxury, in line with our proposed theoretical account. Finally, Study 4 confirms that these effects of guilt are counter-intuitive: when asked, consumers overwhelmingly predict that they would be less likely to choose the maximum luxury when guilt was activated ($p < .01$).

As the need for justification can affect consumer decisions and shift preference towards options that are supported by the best reasons, this research has clear implications for marketers seeking to maximize their understanding of consumer decision processes at the point of choice. Further, it extends what is currently known about the effect of guilt on consumer behavior, showing that guilt is not always associated with increased self-regulatory function: in the domain of luxury goods when the most salient justification may be maximum indulgence, guilt increases choice of maximum luxuries. We have two ongoing studies that are presently being run to further explore the process underlying this phenomenon. Specially, we seek to demonstrate: (1) that an increased desire to justify one's choice mediates the observed effects and (2) that the same guilt prime can lead to more (less) indulgent choices depending on the nature of the choice set (e.g., a choice between luxuries versus a choice between a luxury option and a utilitarian option). We hope that the current research will prompt future inquiry into this area.

For more information, contact: kelly-goldsmith@kellogg.northwestern.edu

Frame Contingent Justification of Unhealthy Consumption Is One Cookie per Day the Same as 365 Cookies per Year?

Manoj Thomas, Cornell University, USA*

Many people try to regulate their consumption rates of food items, particularly consumption rates of impulsive and unhealthy food items, such as candies, cookies, cakes. The need for moderation seem to be particularly relevant in the context of the looming obesity epidemic, which at least to some extent might be caused by a lack of moderation in food consumption (Wansink 2006). Although few would disagree with the need for moderation in consumption of unhealthy food items, it is not clear how consumers judge whether their consumption rates are healthy. The present research is an initial attempt to study one facet of the psychology of consumption rates: how the framing of consumption rates influences judgments of healthfulness.

We address whether altering the temporal interval within which consumers frame their consumption rates can influence their evaluations of the healthfulness of their eating habits. Normatively, a consumption rate of "one cookie per day" is the same as that of "365 cookies per year." Therefore, these expressions of the same consumption rate should be evaluated identically. However, we find that consumers do not respond to these two consumption rates as though they are identical. They systematically ignore the unit of time and focus on the numerosity of the consumed product. Consequently, framing consumptions of vice products using a shorter time frame (one cookie per day) justifies the indulgence and thus makes the consumption seem less unhealthy. When the same consumption is framed using a longer period (365 cookies per year), the indulgence is less easy to justify and consumers are more likely to perceive their consumption as unhealthy.

Our theorization of the psychology of the consumption-framing effect draws on two streams of literature. First, based on the literature on ratio bias and numerosity in psychology (Denes-Raj and Epstein 1994; Inbar, Cone and Gilovich 2010; Kilpatrick and Epstein 1992; Slovic, Monahan and MacGregor 2000) and marketing (Bagchi and Davis 2011; Raghuram 2008), we hypothesized that the numerosity of the consumption rate will have a greater effect than will that of the unit of measurement. Specifically, we predicted that evaluations of consumption rates of unhealthy food items will depend on the frame of the rate. The same consumption rate will be judged as less healthful when it is framed as a “per year” rate (52 cookies per year) than when it is framed as a “per week” rate (one cookie per week).

Second, based on the literature on justification effects in impulsive consumption (Khan and Dhar 2006; Mishra and Mishra 2011; Okada 2005; Thomas, Desai, and Seenivasan 2011) we hypothesized that the proposed consumption-rate framing effect is more likely to manifest for vice products that typically stimulate a need for justification (e.g., cookies, cakes and candies) than it is for virtue products that typically do not need justification (e.g., apples and cereals). Specifically, we predicted that the effect of consumption-rate framing on perceived healthfulness will be mediated by the justifiability of the consumption rate. Furthermore, we predicted that the consumption rate-framing effect is more likely to manifest for (i) products that need justification (vice products) than for products that do not need justification (virtue products), and (ii) for consumers who have a higher need for justification (more prudent consumers) than for those who have a lower need for justification (less prudent consumers).

Three experiments were conducted with about 400 participants to test these hypotheses. In Study 1 participants were randomly assigned to one of the three conditions: *control*, *weekly rate*, or *annual rate* were asked to evaluate the healthfulness of their consumption rates of several food items that are desirable yet commonly perceived as unhealthy, such as cakes, cookies, and doughnuts. For each item, they evaluated their consumption rate on a 0-100 scale. One-third of them (in the weekly rate condition) were asked to estimate the weekly consumption rates of these items, while another one-third (in the annual rate condition) were asked to estimate the annual consumption rate of these items before evaluating the healthfulness of their consumption rates. The remaining one-third (those in the control condition) evaluated the healthfulness of their consumption rates without estimating those rates. Subsequently, they were asked to indicate how easy or difficult it was to justify those rates. Consistent with our prediction, the results showed that participants perceived their consumption rate to be more healthful in the weekly frame ($M_{week} = 66.4$) than in the yearly frame ($M_{year} = 49.9$; $F(1, 94) = 6.2, p = .02$). Furthermore, the consumption rate in the weekly frame was perceived to be marginally more healthful than the rate in the control condition was ($M_{control} = 55.1$; $F(1, 94) = 3.2, p = .08$). Similar pattern of results manifested for justifiability of consumption rates; participants found it easier to justify their consumption rates in the weekly time frame ($M_{week} = 4.1$) than it was in the yearly time frame ($M_{year} = 3.2$; $F(1, 94) = 14.3, p < .01$). Moreover, participants in the weekly frame found it easier to justify their consumption rates than did those in the control condition, wherein they did not have to explicitly articulate their consumption rates ($M_{control} = 3.6$; $F(1, 94) = 4.00, p < .05$).

Study 2 was similar to Study 1 with an important variation; we introduced an additional within-subjects factor—type products (vice vs. virtue). Participants in this study were asked to evaluate their consumption rates for five vice and five virtue products. Consistent with our prediction, we found that the consumption rate framing effect manifested for vice products that elicited feelings of desire and regret, but not for virtue products that did not elicit such feelings.

Finally, in Study 3 we demonstrated that the effect of consumption rate framing is, somewhat paradoxically, stronger for more prudent consumers (than for less prudent consumers) because prudent consumers experience greater regret when they consume vice products.

The Veil of Fairness: Children Learn to Appear Moral without Behaving Morally

Michael I. Norton, Harvard Business School, USA*

Marco Piovesan, Harvard Business School, USA

Natalia Montinari, Max Planck Institute of Economics, Germany

Francesca Gino, Harvard Business School, USA

Scholars across disciplines have long been interested in the study of fairness, with research demonstrating that humans have evolved an intuitive aversion to violations of fairness (Brosnan & de Waal, 2003; Fehr & Schmidt, 1999). Previous research suggests that humans appear to develop this “taste” for fairness over the course of childhood (Harbaugh, Krause, & Liday, 2003); Fehr et al. (2008), for example, showed that behavior signaling fairness increases with age among children aged three to eight. At the same time, other research has shown that people act to appear fair without actually being fair, a tendency called moral hypocrisy (Batson, Kobrynowicz, Dinnerstein, Kampf, & Wilson, 1997). For instance, people may decide to flip a coin to distribute resources between themselves and another person (i.e., a fair procedure) but accept the outcome of the flip only if it favors themselves (Batson et al., 1997). Thus, through moral hypocrisy, people can create the appearance of fairness without actually having to bear the costs of being so – justifying their unethical behavior. These two streams of research taken together highlight an important distinction: *being* fair versus *appearing* fair. The desire to *appear* fair is a social concern, with children internalizing social norms and becoming more likely to engage in self-presentation by ten years of age (Aloise-Young, 1993; Banerjee, 2002; Carpendale & Chandler, 1996; Piaget, 1932; Selman, 1980; Turiel, 2006). We explore whether previous research with children documenting the development of a desire to *be* fair may in fact instead be assessing the development of a desire to merely *appear* fair.

To test this assertion, we used a simple paradigm developed from procedures used to investigate moral hypocrisy in adults (e.g., Batson et al., 1997). Our goal was to investigate whether children would choose a fair procedure (flipping a coin) to appear fair but then lie, if needed, so that they could receive the more attractive option. We predicted children would be more likely to flip the coin as they aged, reflecting their increased awareness of norms of fairness and their desire to *appear* fair. However, we predicted no difference by age in children’s tendency to lie to give themselves a more attractive outcome – their desire to actually *be* fair.

Children aged 5-10 (N = 686) were students in one of 41 classes across ten schools in the district of Treviso, Italy. Each child was asked to decide how to assign two products between themselves and another person: a colored highlighter pencil (the attractive product) or a normal pencil (the neutral product). Each child was presented with two options regarding the procedure to use for the product assignment: the child could either take the product that s/he liked better immediately, or flip a coin in private to decide. Children who chose to flip the coin went behind a partition to flip the coin, and then filled out a sheet to indicate the outcome. Depending on the self-reported outcome, children received either the attractive or neutral product. Because the outcome of the coin flip was self-reported and private, children had the opportunity to lie by reporting that they won the preferred product.

We first examined whether age predicted the likelihood of choosing the fair procedure to determine the assignment of the two products (i.e., flipping a coin). As expected, age was a positive and significant predictor of the choice to flip ($\beta=1.29, p < .01$): less than 40% of the youngest age group chose to flip, while nearly 70% of the oldest age group did. These results demonstrate a clear developmental trajectory in the desire to *appear* fair. Did children show an increase in their desire to *be* fair with age, as well? If children did not lie about the outcome of the coin flip, we would expect that 50% of children would assign themselves to the attractive product and 50% to the neutral product. If there were a

developmental difference, we might expect younger children to assign themselves to the attractive product more often than older children, even after flipping the coin. Across age groups, 62% of children who flipped the coin reporting winning the attractive product ($p < 0.01$), evidence of moral hypocrisy. Most importantly, this percentage showed no variance by age ($p = 0.871$); for every age group, the percentage of children who reported winning the attractive product was statistically greater than 50% (all p s < 0.02).

In sum, our results provide the first evidence that concerns about appearing fair – and not concerns about actually being fair – show a developmental trajectory, suggesting that the mechanisms underlying moral hypocrisy in adults develop with age. As children grow older, we found, they become more likely to hide their unfair decisions under a veil of fairness.

For more information, contact: mnorton@hbs.edu

7.2 Individual Papers: If I Only Had a Heart: Emotions

Room: Four Seasons Ballroom 2

Chair: Steven Sweldens, INSEAD, France

Understanding Emotions in Advice Taking

Ilona De Hooge, RSM, Erasmus University, The Netherlands*

Stefanie Tzioti, RSM, Erasmus University, The Netherlands

Peeter Verlegh, University of Amsterdam, The Netherlands

More often than not consumers seek recommendations from other consumers, salespeople, or companies before making a final decision. The advice taking process can have substantial impacts on decision outcomes: informed by good or bad advice, consumers can improve or worsen their decisions (Harvey & Fischer, 1997; Yaniv & Kleinberger, 2000). Surprisingly, even though emotions have been shown to play a pivotal role in decision making, the theoretical and empirical record so far has not shed much light upon the role of emotions in the advice process. Unlike individual decision making, advice taking is an interpersonal process (Bonaccio & Dalal, 2006). Therefore, the general findings concerning emotion influences in decision making may not be generalizable to advice taking situations. The present research aims to develop a better understanding of the role of emotions in the advice process.

The core idea is that the effect of an emotion on advice taking is dependent upon its valence, focus, and context. To date, one study by Gino and Schweitzer (2008) is the only research that addresses the role of emotions in advice taking. These authors' findings suggest that emotion valence influences advice taking: positive emotions increase and negative emotions decrease advice taking. Importantly, emotions can also be divided on the basis of their focus—that is, they can be other-focused or self-focused (Smith, 2000; Smith, Eyre, Powell, & Kim, 2006). Other-focused emotions concern appraisals concentrated upon *others* in one's social environment, and reflect emotions that are caused by another person or object. On the contrary, self-focused emotions shift attention from the world to oneself, and are caused by the consumer oneself. Finally, emotion influences can be divided on the basis of their context – that is, they can be endogenous or exogenous (Zeelenberg et al., 2008). Emotion influences are endogenous when they concern behaviors in situations that are related to the emotion-causing event. On the other hand, exogenous influences concern behaviors in situations that are not related to the emotion-causing event.

Together, the factors emotion valence, focus, and context can explain emotion effects in advice taking. When the influence is endogenous, other-focused emotions convey relevant information concerning an advisor's abilities to

provide good advice. In contrast, when the influence is exogenous, the decision situation is different from the emotion-causing situation, and the same other-focused emotion may convey less clear information about an advisor's ability to provide good advice in the new decision situation. Hence, endogenous influences of negative other-focused emotions (clearly indicating that the advisor will not provide good advice) will result in *less* advice taking compared to exogenous influences. Conversely, endogenous influences of positive other-focused emotions (clearly indicating that the advisor will provide good advice) will result in *more* advice taking compared to exogenous influences.

For self-focused emotions, endogenous influences convey relevant information concerning one's own ability to make good decisions. In contrast, exogenous influences of self-focused emotions convey less clear information about one's ability to make good decisions in new decision situations. Consequently, we suggest that endogenous influences of negative self-focused emotions (clearly indicating that one's own decision will not provide a good result) will result in *more* advice taking compared to exogenous influences. Conversely, endogenous influences of positive self-focused emotions (clearly indicating that one's own decision will provide a good result) will result in *less* advice taking compared to exogenous influences. Five experiments on the effects of four different emotions on advice taking reveal data consistent with this idea.

Method

In all experiments participants made an initial decision, received an emotion induction and advice, and then made their final decision. The difference between participants' initial decision and final decision was used as a measure for advice taking. Conditions, emotion manipulations, and timing of emotion manipulation checks differed across experiments. In Experiment 1 the other-focused emotions gratitude and anger were manipulated with an autobiographical recall procedure and advice taking was measured in an organizational setting. The goal of Experiment 2 was to replicate the findings of Experiment 1 with a lab induction and with a decision concerning what task to do next. In Experiment 3 the effects of the positive emotions gratitude and pride on advice taking were tested using a scenario induction and an organizational decision setting. Similarly, Experiment 4 focused on the effects of the negative emotions anger and shame on advice taking. Finally, Experiment 5 demonstrated the pervasiveness of emotion effects by comparing the advice taking effects of shame with a control condition in a lab setting.

Findings

Supporting the role of emotion valence and of emotion context in advice-taking, we found contrasting effects for the other-focused emotions anger and gratitude. While consumers experiencing the positive other-focused emotion gratitude took *more* advice if the emotion context was endogenous instead of exogenous (i.e. if the emotion was aimed at the advisor instead of aimed at somebody else), consumers experiencing the negative other-focused emotion anger took *less* advice if the emotion context was endogenous as opposed to exogenous (Experiments 1 and 2). These findings cannot be explained by emotion valence and emotion context alone. In contrast with the positive emotion gratitude, consumers experiencing the self-focused emotion pride took *less* advice if the emotion context was endogenous rather than exogenous (Experiment 3). Also, in contrast with the negative emotion anger, experiencing the negative self-focused emotion shame motivated *more* advice-taking if the emotion context was endogenous rather than exogenous (Experiments 4 and 5).

Conclusion

Experiencing emotions can substantially influence consumers' willingness to incorporate advice in their final decisions. The way these emotions influence consumers' advice-taking depends on an emotion's valence, focus and context.

While positive other-focused emotions and negative self-focused emotions aimed at the advisor stimulate advice-taking, negative other-focused emotions and positive self-focused emotions aimed at the advisor diminish advice-taking. This suggests that it is necessary to look beyond valence to other characteristics of an emotion to be able to understand where its effect on advice taking (or on consumer behavior in general) originates in. Only then we will be able to let our emotions help us make well-informed decisions.

For more information, contact: IHooge@rsm.nl

Finding Meaning in Mixed Affective Experiences

Sayantani Mukherjee, California State University Long Beach, USA*

Thomas Kramer, University of South Carolina, USA

Loraine Lau-Gesk, UC Irvine, USA

Past research has shown that mixed affective experiences generally are aversive unless consumers find a way to cope with their associated discomfort. Yet consumers often knowingly seek out experiences that elicit both positive and negative affect. For example, skydivers find enjoyment from feeling intense happiness and fear during their jump (Celsi, Rose, and Leigh 1993). Gamblers (Cowley 2008) and movie goers (Larsen, McGraw, and Caccioppo 2001) also feel a wide range of oppositely-valenced emotions during their consumption experiences. Thus, many mixed affective experiences are those consumers actually wish for rather than wish to avoid.

Existing research shows that mixed (as opposed to pure) affective experiences have been characterized as conflicting psychological states that elicit discomfort (Williams and Aaker 2002). However, this approach does not appear to address understanding the type of mixed affective experiences described above, those which consumers actually desire and derive pleasure from. Responding favorably to this type of mixed affective experience seems not a function of coping with unpleasantness, but rather of enjoying its pleasantness. Departing from past research examining mixed affective experiences that consumers want to avoid, the present research investigates those that consumers actually desire. Specifically, we address two interrelated questions. First, can mixed affective experiences be more enjoyable than pure positive ones? And second, what makes such mixed affective experiences enjoyable to consumers?

We propose that in the context of mixed affective experiences that involve goal pursuit and personal achievements, mixed affective experiences can be more enjoyable than pure positive ones because consumers derive more meaning from the experience. This is based on past research which has discussed the importance of goal pursuit in deriving meaning where meaning is defined as having a sense of purpose and attainment of goals that are important to an individual (King et al. 2006) For example, Frankl (1984) proposed that personal accomplishments are instrumental to creating meaning. Thus, mixed affective experiences that involve goal pursuit not only are associated with mixed affect but are also likely to be linked with meaningfulness. In turn, consistent with research showing meaningfulness often to be associated with greater levels of enjoyment (Csikszentmihalyi 1990), consumers may seek out and enjoy experiences from which they derive meaning. Further, we argue that mixed affective experiences can be enjoyed more than pure positive ones. This is because when engaged in goal pursuit, consumers may infer that detriments, such as negative affect, are necessary evils to experience on the way to success, as popularized by the expressions of “no pain, no gain,” or “the road to accomplishment is through hardship.” For example, Kramer et al. (2011) found that consumer responses to medications with severe, as compared to mild, side effects were more favorable. Further, a bad-tasting cough syrup was judged to be more effective at fighting colds than a good-tasting one. Likewise, Loewenstein (1999) found that the pain endured during mountain climbing reveals one’s strength under harsh conditions to others.

To test our proposition, we directly examined mixed affective experiences that involve goals and personal accomplishments, such as mastering a videogame or a challenging mountain bike ride. We conducted a field study in a videogame arcade where 41 patrons played a videogame of their choice. After playing the game, participants reported their affective intensity and overall evaluations. As expected, results showed that participants evaluated the experience as significantly more enjoyable when it was mixed versus pure positive (6.09 vs. 5.5; $F(1, 39) = 4.64, p < .05$). In our second study, we examined the mediating role of meaningfulness. We also included felt discomfort measures to rule it out as an alternate mediator to demonstrate the novelty of desirable mixed affective experiences. Further, since we suggest that consumers obtain meaning from mixed affective experiences when such experiences are associated with goals and personal achievement, we theorized that this effect should emerge when consumers focused on the end goal (of accomplishment). Thus, in the next study, we manipulated the focus of participants' thoughts to either emphasize the end goal of achievement (outcome-focus) or emphasize the process or steps that lead to the goal (process-focus) (Escalas and Luce 2003; Thompson, Hamilton, and Petrova 2009). We expected that mixed (vs. pure positive) affective experiences will enhance meaningfulness and increase enjoyment for consumers whose thoughts are focused on the outcome (vs. process). One hundred and fifteen undergraduate students from a West coast university participated in a study on mountain-biking. A 2 (affective experience: mixed vs. pure positive) X 2 (focus: outcome vs. process) ANOVA on participants' enjoyment yielded the expected affective experience X focus interaction ($F(1, 111) = 4.62, p < .05$). Enjoyment of the mixed affective experience was significantly greater than the pure positive one (6.53 vs. 6.00; $F(1, 111) = 5.49, p < .05$). However, type of affective experience did not impact the level of enjoyment for participants in the process focus condition (6.15 vs. 6.26; $F(1, 111) = .31, p > .10$). To examine whether meaningfulness mediated the interaction between affective experience and focus on enjoyment ratings, a mediated moderation analysis was conducted (Muller, Judd, and Yzerbyt 2005). Results showed that the effect of type of affective experience on enjoyment is mediated by meaningfulness. However, and as expected, the observed effects only emerged for consumers who were focused on the outcome of the experience, as compared to the process. Further, findings showed that felt discomfort did not mediate the joint influence of type of affective experience and focus on enjoyment.

Together, the findings from our two studies show that mixed affective experiences are not only enjoyable but they can even provide more enjoyment than pure positive affective experiences. This adds to research across different domains of mixed experiences such as mixed affect (Williams and Aaker 2002) and cognitive dissonance (Elliott and Devine 1994) which has primarily focused on the discomfort elicited by mixed affective experiences and thus, implicitly assume that such experiences are negative.

For more information, contact: smukherj@csulb.edu

Feeling Immoral about Money: How Moral Emotions Influence Consumer Spending Decisions

Hyun Young Park, New York University, USA*

Tom Meyvis, New York University, USA

Most of the money we spend is money we have earned or received in some legitimate fashion. However, we sometimes receive money that does not make us feel all that good. Even in the absence of any illegal activity, we may feel guilty about money (e.g., when we feel we did not deserve to be paid that much) or feel angry about money (e.g., when we feel we should have been paid more than what we received). This research examines how moral emotions such as guilt and anger change how we spend the money associated with these emotions.

We investigate how spending decisions are influenced by the moral nature of an emotion (moral versus non-moral), the target of an emotion (money versus situation), and the type of emotions beyond valence (guilt versus anger). We

examine how these factors affect spending on various categories, including charitable donations, spending on self versus others, hedonic versus utilitarian products, virtues versus vices, and necessities versus luxuries, saving, and paying off debt. We begin by examining the effects of guilt and later compare them with the effects of anger.

Based on the prior research on morality and emotions, we expect that even the same emotion can lead to different action tendencies depending on whether the emotion is moral or non-moral. We hypothesize that *moral* guilt, which is evoked by moral violations involving the wellbeing of others, leads to prosocial action tendencies; whereas *non-moral* guilt, which is triggered by situations that solely involve self interest (e.g., self-control failure), does not. Specifically, we hypothesize and confirm in a scenario-based study that money associated with moral guilt is spent more prosocially (e.g., donated more to charities, spent more on others than on oneself) than money associated with non-moral guilt. In contrast to the pervasive assumption that guilt infallibly evokes prosocial behaviors (Haidt 2003), our results show that guilt increases prosocial spending only when it arises from moral transgressions. Interestingly, moral guilt induced in our study increased prosocial spending, but not virtuous or utilitarian spending related to the self, unlike the effects of non-moral guilt documented in previous research (Kahn, Dhar, and Wertenbroch, 2005).

In two other studies, we find that moral guilt increases prosocial spending only when it is directly associated with the money being spent, but not when it is felt toward the situation in which the money was received, which is consistent with the emotional accounting framework of Levav and McGraw (2009). Furthermore, our results show that moral guilt attached to money leads to prosocial spending of that money but not to prosocial behaviors in general (e.g., volunteering time for charities). Also, people use tainted money prosocially but not untainted money when they try to compensate for moral guilt attached to the tainted money, implying infungibility between tainted and untainted money in the moral compensation process. Together, these findings indicate that people's spending decisions do not reflect a generalized drive for prosocial behaviors to compensate for transgressions, but rather a specific desire to use tainted money in a way that cleanses moral guilt attached to the money.

Whereas the first three studies focused on guilt, in the fourth study, we compare the effects of guilt with the effects of anger. While both guilt and anger are considered to be the most prototypical negative moral emotions (Haidt 2003), we show that moral anger attached to money *decreases* prosocial spending compared to the control, whereas moral guilt *increases* prosocial spending compared to the control. Consistent with the first studies, participants who read a scenario in which they obtained a partial refund by lying about product damage felt guiltier about the refund, and showed a greater willingness to spend it prosocially than those in the legitimate refund control condition. However, participants who read about receiving a partial refund though they were entitled to a full refund felt angrier about the refund, and spent it less prosocially than those in the control.

Finally, we replicate the results of the scenario studies in lab-induced guilt and anger studies involving actual money. In Study 5, all participants took part in an Implicit Attitude Test to test their prejudice against disabled people. Whereas one group (the control) received money for participating in the test, a second group received money "because they qualified for a follow-up study since their test results revealed a strong prejudice against the disabled." Compared to participants in the control group, those who received the money because of their alleged prejudice felt guiltier about the money and engaged in more prosocial spending. However, people in a third group who also received a negative test result, but received the money as a reward for their participation (rather than because of the negative test result) did not show any increase in prosocial spending. Finally, in Study 6, participants who received an unfair sum of money in a Dictator Game felt angrier about the money and were less likely to use the money prosocially.

In sum, we show that consumers do engage in compensatory prosocial actions when experiencing negative moral emotions toward their money. However, this compensatory effect is surprisingly specific and limited. Although it is to

be expected that people who feel guilty want to redeem themselves by helping others, it is striking that those people only want to help with the tainted money (and not with their time or untainted money) and that this only occurs when they feel *moral* guilt about the *money* (and not when they feel non-moral guilt about the money or moral guilt that is not associated with the money). As such, people behave as if they are aiming to cleanse the tainted money rather than to cleanse themselves from moral failures. Finally, the prosocial spending of tainted money is limited to the cases when the money is tainted by self and is associated with guilt, but not when the money is tainted by others and is associated with anger. In the latter case, the effect reverses and people are *less* likely to engage in prosocial spending.

For more information, contact: hpark@stern.nyu.edu

Different Emotional Mechanisms Predict Aggressive Cognition for Different Types of Violent Video Games

Paul M. Connell, Stony Brook University, USA

Wendy Attaya Boland, American University, USA*

A large body of studies has converged on the finding that playing violent video games lead to aggressive cognition and behavior (e.g., Anderson et al 2010). Affective states resulting from playing violent video games are thought to be a major influence on subsequent aggression (Anderson & Dill, 2000). However, the majority of previous research has focused on the influence of negative affective states, such as anger, on aggression after playing (Anderson & Dill, 2000; Anderson & Ford, 1987; Ballard & Weist, 1996; Mehrabian & Wixen, 1986). Regulatory focus theory posits that people approach pleasure and avoid pain (Higgins, 1997). Based on regulatory focus theory, we examine the influence of a negative (anger) and a positive (schadenfreude) affective state that players might experience while playing games.

Schadenfreude is defined as deriving pleasure from the misfortune of others. In competitive situations, it can be experienced when someone benefits at another's expense (Feather, 1999; Feather & Stone, 2002). Thus, attack-style video games such as shooting games are likely to elicit schadenfreude as the player's score increases when targets are eliminated. In the case of a shooting game, the player approaches pleasure, which is consistent with a promotion orientation (Higgins, 1997). In contrast, sometimes the player's score is mostly influenced by evading other characters or hurled objects. In the case of an evasive maneuvers game, the player avoids pain, which is consistent with a prevention orientation (Higgins, 1997). Because the player, in this case, is not inflicting pain on others, then it is unlikely that s/he would experience schadenfreude while playing the game. Rather, anger or frustration at the objects or characters in the game that must be evaded is a more likely result.

The present research examines the role of experienced schadenfreude and anger on aggressive behavior while playing violent video games. We expect anger to moderate aggressive cognition in the case of a prevention-oriented, evade-style game. In contrast, we expect schadenfreude to moderate aggressive cognition in the case of a promotion-oriented, attack-style game. One hundred and twenty-one undergraduates (51 female, 70 male) voluntarily participated in exchange for course credit. After giving consent, participants were randomly assigned to play either a promotion or prevention-oriented video game. Both are free online games that were pretested as equally enjoyable ($t(69) < 1$) and engaging ($t(69) < 1$). In the promotion-oriented game, called Canyon Shooter, participants shot at and killed enemies with machine guns while parachuting into a canyon. In the prevention-oriented game, called Ragdoll Avalanche II, participants maneuvered a character from left to right and avoided spikes that would slice body parts off of the character. After playing the game, participants completed a scale of seven-point items measuring the degree to which they felt anger or schadenfreude (Feather & Sherman, 2002) during the game. For the dependent measure, participants completed the 29 items on Buss and Perry's (1992) aggression questionnaire on a seven-point scale. Finally, participants were debriefed and thanked for their participation.

Data was analyzed by running a custom ANCOVA model in SPSS with the aggressive cognition scale as the dependent variable ($\alpha=.88$), how often the participant played video games as a covariate, game condition as a categorical independent variable, and either the schadenfreude scale ($\alpha=.83$) or anger scale ($\alpha=.76$) as a continuous independent variable. As expected, there was a significant interaction between whether the promotion or the prevention-oriented game was played and anger ($F(1,116)=5.74, p<.05, \eta^2=.05$) on aggressive cognition. Participants that experienced more anger reported more aggressive cognitions after playing the prevention-oriented game ($\beta=.38, t(56)=3.18, p=.001$) but not after playing the promotion-oriented game ($\beta=.01, t(56)=.06$). There was also, as expected, a significant interaction between whether the promotion or prevention-oriented game was played and schadenfreude ($F(1,116)=5.74, p=.05, \eta^2=.03$) on aggressive thought. Participants that experienced more schadenfreude reported more aggressive cognitions after playing the promotion-oriented game ($\beta=.40, t(61)=3.28, p<.001$) but not after playing the prevention-oriented game ($\beta=-.09, t(61) < 1$).

This research has important practical implications. Previous research has demonstrated that angry people can be drawn to violent video games because they believe that playing them facilitates catharsis of any negative emotions they might be experiencing (Bushman & Whitaker, 2010). We find, however, that playing prevention-oriented games can lead to heightened anger instead of catharsis. While playing promotion-oriented games could theoretically lead to catharsis, our findings demonstrate that these games can still lead to aggression through schadenfreude, or pleasure in another's pain. Thus, our research provides support to calls for increased regulation of violent games.

For more information, contact: paul.connell@stonybrook.edu

7.3 Symposium: Numerical Cognition: The Interpretation of Numerical Information and Downstream Consequences for Consumer Behavior

Room: Desert Willow

Chair: Bart de Langhe, University of Colorado, USA

Almost There? The Role of Absolute vs. Relative Error in Perceived Progress Towards an Accuracy Goal

Oleg Urminsky, University of Chicago, USA*

Recent research on goal progress has investigated the impact of people's perceptions of distance from a goal (e.g. Kivetz, Urminsky and Zheng 2006, Koo and Fishbach 2008). We use prediction accuracy as a context to model how people evaluate differing degrees of progress to a goal.

The perceived discrepancy between current state (a prediction) and the accuracy goal (actual value) is primarily driven by attempting to assess and incorporate two salient pieces of information: the absolute and the proportional (percentage) error. We propose that accuracy judgments exhibit *quasi-proportionality*: a fixed absolute error will be evaluated as worse when the actual value is relatively small, while a fixed proportional error will be evaluated as worse when the actual value is large. Furthermore, the relative weight on absolute vs. proportional distance in forming a discrepancy judgment will be systematically affected by the magnitude of the actual value. In particular, more weight is put on absolute error for large true values and more weight is put on proportional error for small true values.

In Study 1 (N=111), participants evaluated a series of pairs of predictions of different students' test scores, indicating which was more accurate. Participants' assessments exhibited significant quasi-proportionality in a model of their choices: incorporating both absolute and proportional error such that the relative weight for each type of error in turn

depended on the scale of the actual values. The effects are not explainable by heterogeneity across participants and do not vary with participants' beliefs about the distributions of scores or with their mathematical ability.

Study 2 (N=153) presented participants with a series of judgments designed specifically to distinguish between competing accounts of accuracy judgments. For example, in one task, 68% of participants evaluated a prediction of 20 vs. 24 actual as better than a prediction of 60 vs. 72 actual. In a separate task, only 36% of the participants evaluated a prediction of 68 vs. 72 actual as better than a prediction of 204 vs. 216 actual. Note that in both tasks, the proportional errors are equal for both predictions (20% in the first task and 6% in the second task) while the absolute errors are the same in the first option for both tasks (12) and in the second option for both tasks (4). Thus, neither proportional nor absolute distance can explain the pattern of choices. In contrast, quasi-proportionality (specifically, the proposed shifting-weights account of incorporating absolute and proportional discrepancies) was consistent with the findings. Furthermore, the patterns of choices could not be explained by the psychophysics of difference judgments (e.g. Marks and Cain 1972) or by a simple averaging model (Wright 2000).

In Study 3 (N=86) participants saw predictions made by two actual models of movie revenue (each predicting a different film) and chose which model they would prefer to use to generate a subsequent prediction, the accuracy of which would determine a bonus payment. We replicate our findings of shifting weights on absolute vs. proportional error, despite the fact that compensation was based solely on absolute error.

In three additional completed studies, the findings are extended to other settings (election outcomes, weather predictions and salesperson's outcomes, Study 4), non-informative reframing of the actual amounts (e.g. predictions of the same number of sales expressed as per month vs. per 10 months, Study 5) and, beyond accuracy, to perceived progress in weight loss goals (Study 6). Our results demonstrate that perceived distance to a goal is determined by both absolute and relative distance remaining, with relative emphasis of each cue determined by the scale of the numbers under consideration, with corresponding results implied for relative motivation.

For more information, contact: oleg.urminsky@chicagobooth.edu

The Power of Spurious Numbers

Luxi Shen, University of Chicago, USA*

Christopher Hsee, University of Chicago, USA

How can marketers motivate their consumers to purchase more without reducing price? How can parents motivate their children to study harder without giving tangible rewards? There are many strategies to increase motivation (e.g., Gourville & Soman, 1998; Kivetz, Urminsky, & Zheng, 2006; Koo & Fishbach, 2008). We in this research suggest a minimalistic method – by presenting and manipulating apparently meaningless numbers.

By meaningless or spurious numbers, we mean numbers that increase in a specific pattern as one exerts effort but the pattern is neither indicative of one's performance nor informative of the reward one earns. Suppose that you are a taxi driver. Besides the numbers normally you see on your dashboard, there is an additional number. This number increases according to a pre-set pattern as you drive, but the pattern neither indicates how many miles you have driven today or how much money you have earned today. Will this number influence how hard you work? If so, which pattern of change is most effective?

To address these questions, we built up a gym room. Research participants were asked to work out on a stepper machine for as many times (as hard) as possible during a specified period. They needed to work for four consecutive rounds, each round lasting two minutes. Those who did the best were promised a cash prize. In front of the participants was a large screen. The screen displayed three numbers, two non-spurious and one spurious. The two non-spurious numbers were the number of times they had stepped on the machine in the current round and the time that had elapsed in the current round. The spurious number had two versions, one with an accelerating pattern (increasing slowly at the beginning and faster later) and the other with a decelerating pattern (increasing fast at the beginning and more slowly later). The research participants knew in advance that there were two versions, and that the version they would encounter was randomly determined by a coin flip by themselves. They were also told in advance that the number did not indicate their performance or their chance to earn the prize. In addition to these two conditions, we also included a third, control condition, in which the participants saw only the two non-spurious numbers and not the spurious number. This condition was intended to mimic the reality, in which exercise machines rarely feature spurious numbers.

What did we find? First, on average, those in the two spurious-number conditions worked harder (stepped more times) than those in the control (no spurious number) condition. Second, among those in the spurious-number conditions, those in the accelerating spurious number condition worked harder than those in the decelerating spurious number condition. Finally, the effects described above occurred not only in round one, but persisted throughout the four rounds, suggesting that these effects were not transient but could be lasting.

In a series of subsequent experiments, we manipulated different aspects of the temporal pattern of a spurious number while holding other aspects constant. We found that what mattered most were (a) the direction of change (whether the number increased or decreased), and (b), given that the number increased, whether it increased in an accelerating pattern or in a decelerating pattern. Other factors, such as the starting point of the number, the ending point of the number, the starting speed of the number, the ending speed of the number, or the average speed of the number, did not matter and were ruled out by the experiments. For example, research participants worked harder on a typing task if a spurious number in front of them increased than if it decreased, or if the number accelerated than if the number decreased, regardless of whether we controlled for the initial position of the number, the ending position of the number, the initial speed of the number, or the ending speed of the number. Moreover, the participants did not work harder or less hard if the number increased at a uniform fast speed than if it increased at a uniform slow speed.

In this talk, we will explain these results in the contexts of two existing lines of research and at the same time we will show that the current research significantly extends the existing literature.

One of the existing lines of research is on how people react to dynamically changing outcomes (Ariely & Zauberman, 2003; Hsee & Abelson, 1991; Hsee, Abelson, & Salovey, 1994; Loewenstein & Prelec, 1993), showing that people react more positively to fast increasing meaningful outcomes (e.g., salary) than to slowly increasing meaningful outcomes, and to accelerating meaningful outcomes than to decelerating meaningful outcomes. The present research extends that literature by showing that people react even to apparently meaningless numbers, and that only acceleration, but not speed, matters.

The other existing line of literature on which the present research built is on medium maximization (Kivetz & Simonson, 2003; Hsee et al., 2009; Hsee et al., 2003) and the money illusion (Raghubir & Srivastava, 2002; Shafir, Diamond, & Tversky, 1997; Tyran, 2007; Wertenbroch, Soman, & Chattopadhyay, 2007), showing that consumers tend to choose options entailing a larger medium (e.g., more points), holding the final outcomes (what the points can be traded for) constant. Nevertheless, that literature is mostly about one-shot static decision. The present research extends that literature by showing that even dynamically changing numbers can influence people's behavior.

The potential practical implications of this research are obvious: The knowledge gained here can help marketers design better loyalty programs to motivate consumers to spend more (or more wisely), and help sports equipment manufacturers design better sports equipment to motivate people to do exercise more, to name just two.

For more information, contact: luxi.shen@chicagobooth.edu

Tipping the Scale: Discriminability Effects in Measurement

Katherine Burson, University of Michigan, USA*

Rick Larrick, Duke University, USA

In Ireland, a District Court judge reduced the speeding charge of a driver who had been clocked going 180 kilometers per hour in a 100 kilometer per hour zone. Looking at this decision, an outside observer might conclude that the court felt the driver's speed was less important in the decision than, say, his previous driving record. However, the judge's explanation for the decision was that the speed did not look "as bad" when converted into 112 miles per hour in a 62 mile per hour zone (Associated Press, 2007). Objectively, speeding by 80 kph is still violating the law by the same proportion as speeding by 50 mph and thus warrants the same penalty. Any scale with ratio properties can be converted from one scale to another (without changing the information provided by the scale) by multiplying the original values by some constant factor. However, this trivial transformation is psychologically consequential, as is clear in this example: The expanded scale highlights the difference between the speed limit and the driver's speed, making that difference seem large. In contrast, the contracted scale minimizes the difference (Pandelaere, Briers, & Lembregts, 2011).

There are decades of research on how people perceive and interpret numerical attributes in psychology and in marketing. In summarizing these traditions, Mellers and Cooke (1994) propose a three-stage sequence by which a perceiver evaluates a multi-attribute object. First, there is a perceptual stage in which specific attribute levels are translated into internal representations. Then, there is a weighting stage in which different internal representations of attributes are combined into an overall judgment. Finally, there is a response stage in which an overall judgment is expressed as a judgment or choice. Researchers attempting to understand consumer behavior often try to back attribute weighting out of observed preferences or choices. For example, conjoint researchers infer participants' attribute weighting from their responses, while ostensibly controlling for perceptions of the products on those attributes. We argue that, like an outside observer of the Irish court decision, conjoint researchers may inappropriately attribute observed choices to attribute importance when what is actually guiding choice is the internal representation of the difference in products.

To test this hypothesis, we manipulate attribute scales within a conjoint design and observe the impact on preference and choice. We then back out presumed relative attribute weights from these choices, as is common in conjoint analysis. Product attributes are presented on either expanded (e.g. 1-100) or contracted (e.g. 1-10) scales, but their relative information always remains the same. Specifically, participants indicated their preferred car out of the three options in nine different choice sets. The values of three attributes (reliability, performance, and comfort) were varied over three levels as suggested by Huber and Zwerina (1996). To examine the impact of scale expansion and contraction on choice in Study 1, we varied whether an attribute was presented on a 0-10 scale or a 0-100 scale. We also varied which one of the three attributes was expanded. In Study 2, we expanded only one attribute, but to different extents (0-10 vs 0-100 and 0-1000).

In both studies, we find that participants' choices closely track the expanded attribute in the conjoint design, replicating past research (Burson, Larrick, & Lynch, 2009). Because conjoint analysis determines the relative importance of a particular attribute by observing its impact on choices relative to the impact of other attributes, the natural conclusion of a market researcher examining one of our conditions in isolation would be that the attribute using an expanded scale was a very important attribute to consumers. Critically, however, our experiments show that this cannot be the case because that importance seems to vary from condition to condition. For example, in Study 1 reliability appeared to be the most important attribute in choice when it was presented on an expanded scale (54%), but appeared to become less and less influential when it was contracted (44%). A similar pattern was revealed in Study 2 (relative importance of expanded conditions = 62% vs contracted condition = 46%). Just as the Irish judge in our opening example did not suddenly discount the importance of speeding in his penalty decision, participants in our studies are not revising the importance of product attributes. Rather, attribute expansion directly influences internal representations of products—exaggerating differences in products—but importance of an expanded attribute is no greater than that of a contracted attribute.

These findings have important implications for market researchers as our studies show that attributes represented on expanded attributes only *appear* to be favored in consumer choice. The interpretation of a conjoint analysis will be sensitive to attribute expansion, thus marketers should take care when they choose how to infer preferences or how to describe their products. Furthermore, Study 2 also reveals that, due to diminishing marginal utility, scale expansion has its limits: Expanding the reliability attribute from a 100 point to a 1000 point scale did not increase preference for the product that performed well on reliability, nor the relative importance of the attribute. Therefore, market researchers should also recognize the boundaries of scale effects.

For more information, contact: kburson@umich.edu

Payoff Ratio versus Expected Value

Bart de Langhe, University of Colorado, USA*

Stefano Puntoni, Erasmus University Rotterdam, The Netherlands

Imagine two gambles. With gamble A, you either win \$100 or lose \$20. With gamble B, you win \$150 or lose \$50. Which gamble has the highest expected value? Although the expected value of gamble A is 20% lower than that of gamble B (40 vs. 50), we asked college students trained in economics and statistics a similar question and over 60% opted for gamble A. Because gamble A has a more attractive payoff ratio (i.e., $100/20 = 5$) than gamble B (i.e., $150/50 = 3$), many people think that the expected value of gamble A is also higher than that of gamble B.

The assessment of expected value is at the heart of seminal theories of motivation (Atkinson 1957), attitudes (Fishbein and Ajzen 1975), health (Rosenstock 1966), and rational choice (von Neumann and Morgenstern 1944). In many situations, involving the possibility of financial gains and losses, understanding and maximizing expected value is crucial to make good decisions (Lusardi 2008). Expected value involves the summation of expected outcomes. Additive integration is therefore a key feature of any expectancy-value model (Keeney and Raiffa 1993). Additive integration is suitable when the quantities to be integrated are commensurable—that is when they have a common standard or belong to the same category—but is not suitable when the quantities to be integrated are not commensurable. For example, when choosing between two jobs differing in workload (measured in hours) and salary (measured in dollars), to compute a summary statistic that jointly considers time and money, one does not subtract the number of hours worked from total dollars earned. In situations where the quantities to be integrated are not commensurable, multiplicative integration is appropriate. For example, a useful statistic to compare the two jobs could be dollars per hour.

The additive integration rule for expected value calculation thus assumes that gains and losses are commensurable. From a normative point of view, this is of course warranted because gains and losses are typically measured with the same standard (e.g., money). From a psychological point of view, however, the assumption that gains and losses, even when measured with the same standard, are perceived as commensurable is not straightforward. Recent developments in emotion research (Cacioppo, Gardner, and Berntson 1999, Larsen, McGraw, and Cacioppo 2001) and neuropsychology (Yacubian et al. 2006; Zhong et al. 2009) suggest that losses are not merely the opposite of gains, but that they are experienced as something different altogether. When evaluating risky decision alternatives, people may therefore have a natural tendency to integrate gains and losses using a multiplicative rule. If so, the payoff ratio is a summary statistic that people may be especially sensitive to.

Payoff ratio and expected value are correlated: a mixed gamble that is dominated by another in terms of expected value is often also dominated in terms of payoff ratio. For example, when considering gamble C (1000, .50; -100, .50) and gamble D (1000, .50; -500, .50), both expected value (450 vs. 250) and payoff ratio (10 vs. 2) are higher for gamble C. Given the correlation between payoff ratio and expected value, if people have a natural tendency to pay attention to payoff ratio, they may often rely on payoff ratio as a proxy for expected value when choosing between two decision options. This would not be an issue if payoff ratio and expected value always led to the same choice. However, this is not the case. In a theoretical analysis, we analytically derive the conditions under which payoff ratio and expected value are dissociated and predict that reliance on the payoff ratio as a proxy for expected value leads to risk aversion (seeking) for mixed gambles with a positive (negative) expected value.

A series of eight experiments (spanning the contexts of gambling, investment decisions, and insurance decisions) shows (a) that the payoff ratio is an important determinant of choice (Studies 1-5 and 8), in many cases leading to reduced earnings, and (b) that people use the payoff ratio to judge the attractiveness of gambles and to gauge expected value (Studies 6-8). For mixed gambles with a positive expected value, using the payoff ratio as a proxy for expected value leads to risk aversion. For mixed gambles with a negative expected value, instead, using the payoff ratio as a proxy for expected value leads to risk seeking. We briefly illustrate three experiments below.

In our third experiment ($N = 208$), participants choose between two gambles. One gamble dominates in terms of expected value, while the other gamble dominates in terms of payoff ratio. For half of participants, both gambles have a negative expected value and for the other half of participants both gambles have a positive expected value. Sixty-three percent of participants opted for the option with the lowest expected value but the highest payoff ratio ($p < .001$). Participants chose the more risky option when expected value was negative, but chose the less risky option when expected value was positive.

In our sixth experiment ($N = 131$), all participants are presented with a gamble A (+60, .50; -30, .50). Half of participants are presented with another gamble B (+80, .50; -__, .50) for which the loss is missing. The other half of participants are presented with a gamble C (+__, .50; -40, .50) for which the gain is missing. Participants are asked to match the two gambles in terms of attractiveness. We find that most participants match the payoff ratio of both gambles, but not the expected value.

In the final experiment ($N = 63$), participants are asked (1) to indicate for several gambles which gamble has the highest expected value and (2) to make several decisions in an investment game. We find that strategy use in the expected value assessment task predicts earnings in the investment game, with participants relying more on the payoff ratio to assess expected value earning less.

For more information, contact: bart.delanghe@colorado.edu

7.4 Individual Papers: Believe: Persuasion

Room: Palo Verde

Chair: Matteo De Angelis, University of Wisconsin-Milwaukee, USA

How Communicator Power Produces Warm versus Competent Appeals

David Dubois, HEC Paris, France*

Derek D. Rucker, Northwestern University, USA

Adam D. Galinsky, Northwestern University, USA

Long Abstract: The choice of a spokesperson to promote an idea or a product is one of the most difficult yet important choices organizations have to make. In particular, such a choice has the potential to significantly guide the audiences' opinions of a company. From simple consumers to successful CEOs, one key feature that spokespersons differ on is their level of power –perceived or actual control over resources or other people (Magee & Galinsky, 2008). The present research asks the following question: how do states of power and powerlessness affect communicators' persuasiveness?

We test three primary hypotheses. First, given increases in power foster confidence (Briñol, et al., 2007) or action-orientation (Galinsky, et al., 2003), we predict that high-power communicators will, all else equal, be better persuaders than individuals in a baseline or low-power state. This prediction is consistent with past work showing that some of the effects produced by increases in power are also known to facilitate persuasion (e.g., confidence: Anderson & Kilduff, 2009; action-orientation: Roloff, 1976).

Second, we suggest that power also has more specific effects on communicators' delivery style along two foundational dimensions of social judgments: warmth and competence (Cuddy et al., 2008). Where warmth captures how good-natured and trustworthy a communicator is perceived to be, competence refers to perceptions of skillfulness and confidence attached to a communicator. Given research showing powerlessness increases one's ability to take others' perspective (Galinsky et al. 2008) and compassion (Van Kleef et al. 2008), powerlessness might enhance communicators' warmth. In contrast, given research linking power with action-orientation (Galinsky et al. 2003) and confidence (Briñol et al. 2007), power might enhance communicators' competence. Overall, messages generated by powerful communicators will be more competent, but messages generated by powerless communicators will be warmer.

Finally, we propose that communicator's power will be differentially effective, when their audience is at a specific level of power. We suggest that what states of high (low)- power foster at the communication stage might also be what high (low)-power recipients value at the reception stage. Thus, when audience power is systematically manipulated, powerful audiences might prefer competence, but powerless audiences might prefer warmth. In turn, powerful communicators will be more persuasive for powerful audiences but powerless communicators will be more persuasive for powerless audiences.

Three experiments test these hypotheses. Analyses used ANOVAs and t-tests as appropriate.

Experiment 1: Does power affect communicator persuasiveness? Participants were French undergraduates taking a mock interview to prepare for entrance to business school. This interview involves convincing two judges to be accepted into the school. Power was manipulated (baseline, low, high) in a pre-interview questionnaire through episodic recall (Galinsky et al. 2003). Participants then completed a mock interview. Judges accepted 47% of baseline candidates,

68% of high-power candidates and 26% of low-power candidates, $p < .05$. In addition, the effect of power on Judge's acceptance was mediated by candidates' perceived persuasiveness (95% CI = .125; .402).

Experiment 2: Communicating warmth, communicating competence. Experiment 2 tested whether power affects the warmth and competence of a message by looking at the same individuals' messages pre- and post- occupying a position of power. Specifically, we randomly presented undergraduates with short interview excerpts of Barack Obama with the same interviewer (e.g., John Hardwood and Charlie Gibson) performed when Obama was a candidate (i.e., not in power) or the president-elect (i.e., in power). The excerpts were cut from actual interviews by a research assistant blind to the hypotheses. Importantly, any information that could allow participants to know Obama's position at the time of the interview was removed (i.e., any sentence or action mentioning or implying he was a candidate or a president at the time of the interview). After viewing a series of excerpts, participants rated Obama's warmth and competence using several items ($\alpha = .91$ and $\alpha = .87$, respectively; items from Cuddy et al., 2008). Obama was judged warmer when a candidate than when president, $p < .01$, but more competent when president than when a candidate, $p < .01$. These findings held true regardless of participants' political affiliations, and despite the fact that debriefing confirmed that participants did not know whether Obama was president or candidate when the interview was produced. Thus, powerlessness (power) might foster communicator warmth (competence).

Experiment 3: Communicator's effectiveness as a function of audience power. Our last experiment tested the effectiveness of powerful and powerless communicators as a function of the audience's power. We predicted that, to the extent audience power affects how an audience weights information, low-power audiences would be more persuaded by low-power communicators, whereas high-power audiences would be more persuaded by high-power communicators.

Undergraduates were assigned to a 3 (communicators' power: baseline, low, high) \times 3 (audience power: baseline, low, high) between subject design. Both communicators' and audience power was manipulated as in experiment 1. Communicators wrote a persuasive message promoting their university. These messages were then randomly presented to audiences who judged the message on three dimensions: persuasiveness, competence, and warmth. Results revealed high-power audiences found high-power communicators more persuasive than low-power and baseline communicators. In contrast, low-power audiences found low-power communicators more persuasive than high-power and baseline communicators. Among baseline recipients, there was no effect of power on persuasion. In addition, regardless of audiences' power, high-power communicators were judged as more competent than both baseline and low-power communicators. In contrast, regardless of audiences' power, low-power communicators were judged as warmer than both baseline and high-power communicators. Further analyses revealed competence (95% CI = .072; .703), but not warmth (95% CI = -.051; .198) mediated the effect of communicator's power on persuasiveness. In contrast, low-power recipients found that warmth (95% CI = -.223; .152), but not competence (95% CI = -.641; -.091) mediated the effect of communicator's power on persuasiveness.

Discussion. These experiments offer a framework for understanding how power affects the communication and reception of persuasive messages, and suggests temporary states of power unilaterally shift a communicator's expression and sensitivity to competence and warmth leading powerless and powerful communicators to yield effective communications, but for different reasons. Implications for social policy and political communication will be discussed.

For more information, contact: duboisd@kellogg.northwestern.edu

Unveiling the Underlying Mechanism for the Matching Effect between Construal Levels and Message Frames

Yun Lee, University of Iowa, USA*

Alice (Jing) Wang, University of Iowa, USA

Catherine Cole, University of Iowa, USA

The current research addresses *how* and *why* different construal levels and different appeal frames jointly influence persuasion. I contend that individuals using high-level construals preferentially pay attention to appeals framed by gains, whereas those using low-level construals selectively focus on appeals framed by losses, and thus this matching should increase persuasion. This perspective has yet to be investigated directly. Its consequences as well as the specific mechanism underlying these consequences are still to be unveiled. Thus, the present research addresses this gap. In what follows, I briefly review relevant literatures. I then report three sets of experiments, and conclude with a discussion of contributions of this research.

Construal Level, Message Frames, and Functional Matching Mechanisms

Construal level theory (CLT) posits that when people use different levels of construal, they selectively include and exclude relevant or irrelevant features of an attitude object (Fujita et al. 2006a). Specifically, high-level construals preferentially capture abstract and global features of an attitude object, but low-level construals, preferentially capture its concrete and local features (Liberian and Trope 1998).

A closer look at the message framing literature offers some insight into how message frames are linked with different levels of construal. For example, research on message frames has demonstrated that loss frames are more persuasive when individuals process them locally (Förster and Higgins 2005), more in-depth (Block and Keller 1995; Shiv et al. 1997) and in details (Maheswaran and Meyers-Levy 1990), whereas gain frames are more persuasive when people process them globally (Förster and Higgins 2005) and in less details (Maheswaran and Meyers-Levy 1990; Shiv et al. 1997).

Given these findings suggesting that gain versus loss frames are related to the features of high- versus low-level construals, I argue that matching high-level construals with gain-framed appeals and low-level construals with loss-framed appeals will enhance persuasion. I test this matching theory between construal levels and gain versus loss frames across three experiments.

Experiment 1

Experiment 1 tests the hypothesis that matching high-level construals with gain frames and low-level construals with loss frames will encourage participants to pay more attention to the appeals they evaluate, and thus increase persuasion.

Method

I randomly assigned participants to one of the four conditions in a 2(frames: gain vs. loss) × 2 (construal level: high vs. low) between-subjects design. Participants read information about heart disease and appeals advocating a diagnostic blood test. I manipulated construal level by making the appeals either *why*-laden (e.g., *why* people need to take a diagnostic blood test) or *how*-laden (e.g., *How* to take a diagnostic blood test). I manipulated message frames by framing the appeals in terms of either gains or losses (e.g., If you (don't) take a diagnostic blood test, you can find (fail to find) out your current cholesterol level). I then asked participants to indicate their intentions to take the blood test (1 = not at all likely ~ 7 = very likely). They also indicated the extent to which they paid attention to the appeals (1=not at all ~7=very much).

Results

Behavioral intentions

A 2 (framing) \times 2 (construal level) ANOVA on behavioral intentions yielded a significant interaction effect ($F(1, 109) = 8.37, p < .01$). When the appeals were why-laden (high level), presenting these appeals in a gain frame was more persuasive than in a loss frame ($M_{gain} = 5.30, M_{loss} = 4; F(1, 53) = 4.17, p < .0565$), whereas when the message was how-laden (low levels), presenting these appeals in a loss frame was more persuasive than in a gain frame ($M_{gain} = 4.44, M_{loss} = 5.36; ; F(1, 56) = 4.34, p < .05$).

The mediating role of attention

Conducting a series of regression analyses (Baron and Kenny 1986) confirmed that the matching effect on behavioral intentions was mediated by attention.

The findings from experiment 1 show that attention mediates the matching effect. Experiment 2 adds processing fluency into the picture.

Experiment 2

Two objectives guide the design of experiment 2: 1) to examine the relationship between processing fluency and attention, and 2) to increase the robustness of the found effects.

Method

Participants were randomly assigned to one of the conditions of a 2(frames: gain vs. loss) \times 2 (construal level: high vs. low) between-subjects design. For the construal level manipulation, participants were asked to write about *why* they need to improve and maintain health (high level) vs. *how* they can improve and maintain health (low level) (Freitas et al. 2004). Then they were presented with an advertisement of a fictitious printer whose ad appeals were gain vs. loss framed (e.g., Don't miss out on (Get) printing-pro for great looking documents and web-page printing!) and asked to evaluate it. They were also asked to indicate the degree to which they paid attention to the ad information and answer processing fluency items (Lee and Aaker 2004; Lee et al. 2010) (1=hard to process, hard to understand, hard to comprehend ~7=easy to process, easy to understand, easy to comprehend).

Results

Attitudes

A 2 (framing) \times 2 (construal level) ANOVA on brand attitudes yielded a significant interaction effect ($F(1, 108) = 13.08, p < .001$). When participants viewed the gain-framed message under high-level construals ($M_{gain} = 5.11, M_{loss} = 4.10; F(1, 55) = 9.74, p < .005$) and when they viewed the loss-framed message under low-level construals ($M_{gain} = 4.16, M_{loss} = 5.07 F(1, 53) = 4.65, p < .05$), their brand attitudes were more favorable than any other condition.

The relationship between processing fluency and attention

Conducting a series of regression analyses demonstrated that matches enhance attention, which in turn increases processing fluency and favorable brand attitudes.

The results from experiment 2 indicate that attention mediates the matching effect on processing fluency and on brand attitudes. Experiment 3 tests whether attention given to matching information is reflected in greater sensitivity to its argument strength (Fujita et al. 2008; Petty and Wegener 1998).

Experiment 3

The objectives of experiment 3 are: 1) to earn a direct evidence of attention given to matching information and 2) to increase generalizability and robustness of the found effects.

Method

Participants were randomly assigned to one of the conditions of a 2(frames: gain vs. loss) × 2 (construal level: high vs. low) × 2 (argument strength: strong vs. weak) between-subjects design. Participants were presented with the information about a wildlife conservation fundraising campaign. Construal level was manipulated as dedicated to protecting a specific North Atlantic Right whale, named Simoon (low level), or North Atlantic Right whales in general (high level). Argument strength was manipulated by presenting arguments that strongly or weakly endorsed the fund-raiser (e.g., 100% (50%) of your financial donation goes toward helping Simoon (North Atlantic Right whales)!). Message frames were manipulated within the stimuli (e.g., Get (Don't lose) a chance to help and save Simoon (North Atlantic Right whales)!). Then participants were asked to indicate how likely they are willing to donate (1=not at all likely ~ 7=very likely). They were also asked to answer processing fluency and attention items.

Results

Willingness to donate

To test the main hypotheses, I recoded the data to reflect matches (a gain frame and high level, a loss frame and low level) and mismatches (a gain frame and low level, a loss frame and high level) between argument strength. The data were then analyzed with a 2 (match: match vs. mismatch) × 2 (argument strength: strong vs. weak) between-subjects ANOVA on willingness to donate. It yielded significant argument strength and match main effects. These main effects were qualified by a two-way interaction effect ($F(1, 141) = 13.02, p < .001$). As predicted, matches supported by weak arguments resulted in less willingness to donate than matches supported by strong arguments ($M_{match, strong} = 4.79, M_{match, weak} = 3.46; F(1, 72) = 14.64, p < .001$).

The relationship between processing fluency and attention

Running a series of regression analyses indicated that matches enhance perceived attention, and thus increases processing fluency and willingness to donate.

Discussion

By demonstrating the enhanced attention mechanism underlying the matching effects between construal levels and gain versus loss frames, the current research contributes to the literatures on functional matching, message framing and construal level. This research also has managerial implications for marketing managers in that it suggests a strategic way to use message frames and construal level to enhance persuasive effectiveness.

For more information, contact: yun-lee@uiowa.edu

Does Accent Matter? The Impact of Ethnic Similarity and Product Congruence on Spokesperson Credibility and Purchase Intention

Aarti Ivanic, University of San Diego, USA

Kenneth Bates, University of San Diego, USA*

T. Somasundaram, University of San Diego, USA

A recent radio commercial features a Jamaican-accented spokesperson who invites consumers to escape to the 'tropical islands' through indulgence in one of McDonald's mango-pineapple smoothies. Rather than using a more mainstream spokesperson with a standard, easy to recognize accent, McDonald's adopted the strategy of using an individual with an accent that is congruent to the product being advertised (in this case, mangoes and pineapples being fruits typically found on tropical islands such as Jamaica and the Caribbean). There are several examples whereby marketers use spokespeople with accents that are stereotypical of the product categories being advertised. Are such methods effective and are they more effective for some consumer groups than others? This research examines how listener-spokesperson similarity and spokesperson-product congruence affect evaluations of spokesperson expertise, attitude towards the spokesperson, and likelihood to purchase the advertised product.

Listeners of accented communications tend to experience decreased trust and suspect potential "hidden agendas," which results in an erosion of spokesperson credibility, and ultimately, decreased purchase intentions (DeShields et al., 1997; DeShields and de los Santos, 2000). Yet, marketers frequently use accented spokespeople to advertise certain products. A notable trend is to use accented spokespeople to advertise product categories or services that are stereotypical of their ethnic group (e.g., Jamaican advertising tropical McCafe smoothies or a Mexican advertising Dos Equis beer). While the relationship between product and accent has typically been framed in terms of country-of-origin effects (Tsalikis, DeShields, and LaTour, 1991; Tsalikis, Ortiz-Buonafina, and LaTour, 1992), it appears that accent is also a significant element in an individual's social identity and thus can be used by marketers to highlight any perceived ethnic expertise.

A *social identity* includes a person's knowledge of how he or she belongs to a social category or group (Hogg and Abrams, 1988). Individuals often pre-categorize others along the dimensions of speech, style, and accent based on their own socialization and cultural values (Tajfel 1981). Accents convey information about a speaker and influence impressions of him/her. Individuals display a preference for and often engage in behaviors that favor their perceived in-group (Escalas and Bettman, 2005). As such, we explore the effects of ethnic similarity and perceived product congruence on evaluation of a spokesperson's expertise, favorability towards the spokesperson, and purchase likelihood.

We conducted an online study with 388 participants, recruited from an independent survey panel. We drew respondents from four ethnic groups: African-Americans, Asians (individuals from China, Japan, Korea, Vietnam and Taiwan), Caucasians, and Hispanics. This study was designed as a 2 (Product Congruence: Congruent, Incongruent) x 2 (Ethnic Congruence: Congruent, Incongruent) between-subjects full factorial design. Ethnic congruence was determined by a match between the respondent's ethnicity and the spokesperson's ethnicity. Results of a pre-test indicated that people thought that African-American's would be the most effective spokespeople for car-customization, Asians for technical support, Hispanics for landscaping, and Caucasians for home security system services. Further these services are seen as being most stereotypical of these ethnicities. Hence, these spokesperson-product combinations were used to represent the spokesperson-product congruent conditions.

Four professional voiceover artists (one African-American, Asian, Caucasian, and Hispanic) recorded a 30-second radio commercial for *each* of the afore-mentioned services, using an accent that is most stereotypical of their ethnic group. Respondents were randomly assigned to a product-congruent/incongruent, ethnicity-congruent/incongruent condition and listened to only one commercial (e.g., Asian advertising technical support services). Following the ad respondents rated the spokesperson's expertise, their attitude towards the spokesperson, and purchase likelihood of the advertised product.

Expertise was defined as a composite of six items (e.g., expertise, believability) measured on five-point scales (Cronbach alpha = .94). A General Linear Model revealed a main effect of ethnic congruence, whereby respondents

rated individuals who were ethnically congruent as having more expertise than those who were ethnically incongruent ($F = 12.20, p < .01$). Attitude towards the spokesperson was a composite of four items (e.g., effectiveness, trustworthiness) measured on five-point scales (Cronbach alpha = .92). Results indicated that respondents had a more favorable attitude towards spokespeople of the same ethnicity ($F = 14.76, p < .01$).

In addition to ethnicity, perceived spokesperson similarity may be based on culture and values (Feick and Higie, 1992; McCroskey, Richmond and Daly, 1975). Respondents indicated on five-point scales to what extent their values, beliefs, culture, and tastes were similar to the spokesperson and to what degree they identified with the spokesperson. These items were highly correlated (Cronbach's alpha = .92) and averaged to create a composite score measuring 'spokesperson similarity.' Spokesperson similarity was sub-divided into three levels (high, medium, low) using a tercile split. We found that spokesperson similarity fully mediated the relationship between ethnic congruence and expertise as well as attitude towards the spokesperson. We believe this is a richer measure of spokesperson similarity and use this variable in all further analyses.

Respondents indicated to what extent they would be likely to try, purchase, and recommend the advertised service. We found a main effect of spokesperson similarity on all three variables (F 's $> 25.0, p$'s $< .01$), whereby individuals who reported high levels of spokesperson similarity indicated a greater affinity to try, purchase, and recommend the advertised service. There was also a significant interaction of spokesperson similarity and spokesperson-product congruence (F 's $> 2.5, p$'s $\leq .07$). Specifically, individuals who reported high levels of similarity and listened to product-congruent commercials reported the highest affinity to try, purchase, and recommend the advertised service. Spokesperson-product congruence had limited impact on purchase likelihood for individuals who reported medium or low levels of similarity to the spokesperson.

Our results suggest that when spokespeople are perceived as being similar to consumers, they are evaluated positively and as having more expertise. While this finding is somewhat intuitive, it is important to note that evaluations that involve an 'action' decision are only significant for those consumers that consider themselves as highly similar to the spokesperson. That is, having spokespeople advertise products that are stereotypical of their ethnic group only has a significant impact on those consumers that highly identify with the spokesperson.

For more information, contact: ivanic@sandiego.edu

On Braggarts and Gossips: Why Consumers Generate Positive but Transmit Negative Word-of-Mouth

Matteo De Angelis, University of Wisconsin-Milwaukee, USA*

Andrea Bonezzi, Northwestern University, USA

Alessandro Maria Peluso, Luiss University, Italy

Derek D. Rucker, Northwestern University, USA

Michele Costabile, Università della Calabria, Italy

Research on word-of-mouth (WOM) has widely examined the type of information consumers share. Scholars have investigated whether positive or negative WOM prevails in the marketplace, but the evidence provided is mixed. Whereas anecdotal evidence (e.g., Goodman 1999) and empirical findings (e.g., Kamins, Folkes, & Pernes 1997) suggest that consumers are more likely to engage in negative WOM, other empirical evidence shows consumers are more likely to engage in positive WOM (e.g., East, Hammond, & Wright 2007). However, efforts to identify factors that could drive these contradictory findings are scant.

Building on the notion that individuals seek to self-enhance (e.g., Fiske 2001) and often consider the marketplace as a route to self-express (Berger & Heath 2007), we propose that consumers can use both positive and negative WOM to bolster their self. We predict that whether consumers fulfill their self-enhancement motive through positive or negative WOM is a function of the stage at which WOM occurs. Specifically, we suggest WOM typically unfolds over two distinct stages that have not been clearly delineated to date and that we label WOM *generation* and WOM *transmission*. WOM *generation* describes a situation where consumers share information about their own experiences with products. WOM *transmission* describes a situation where consumers pass-on information about experiences they heard occurred to someone else. We propose that consumers will engage in WOM of opposite valence in the generation versus transmission stage to self-enhance.

Past research has hypothesized that talking about one's personal positive consumption experiences could be one means to self-enhance (Sundaram, Mitra, & Webster 1998; Wojnicki & Godes 2011). While this work might support the evidence of a greater proliferation of positive information (East et al. 2007), it cannot account for the opposite evidence suggesting greater proliferation of negative information (Kamins et al. 1997). We propose that the self-enhancement motive does more than simply motivating consumers to share their own positive experiences. Past research has shown that individuals can self-enhance indirectly by talking about other people's experiences especially when they are negative (Taylor & Brown 1988; Tesser 1988). Based on this evidence, we predict that while the self-enhancement motive might lead to proliferation of positive WOM at generation, it might lead to proliferation of negative information at WOM transmission. We tested this prediction in four experiments.

Experiment 1 tested the basic prediction that individuals with a higher need to self-enhance tend to generate more positive and transmit more negative WOM than those with a lower need to self-enhance. We manipulated respondents' need to self-enhance via threat. Specifically, undergraduate students were asked to describe either the class where they had their worst academic performance (high threat) or their last trip to the grocery store (low threat). Participants were then asked to talk to a confederate about a consumption experience occurred either to them (WOM generation) or to other people--acquaintances, friends, relatives or significant others--(WOM transmission). While listening to participants' experiences, the confederate coded them in terms of valence, on a scale ranging from -3 to +3. Results showed that threatened participants generated more positive and transmitted more negative WOM than non-threatened participants ($ps < .05$). This experiment provided preliminary evidence that self-enhancement might play out differently across the two WOM stages, leading to generation of more positive and transmission of more negative WOM.

Experiment 2 further explored the self-enhancement account by measuring participants' self-esteem, and testing whether individuals low in self-esteem tend to generate positive but transmit negative WOM as a way to self-enhance (Shrauger 1975). We manipulated WOM stage (generation versus transmission) and valence of the experience (positive versus negative). A measure of likelihood to engage in WOM was our dependent variable. Results showed that individuals low in self-esteem indicated higher likelihood to share positive information in the generation and negative information in the transmission stage ($ps < .01$). In contrast, individuals high in self-esteem showed no differences in the likelihood to generate or transmit positive versus negative information ($ps > .10$). This experiment supported the proposition that individuals differentially use WOM generation and transmission to self-enhance.

Experiment 3 offered convergence on the proposed mechanism by manipulating participants' threat to self-view in the same way as Experiment 1. Unlike Experiment 1, we manipulated WOM stage. Participants were asked to write a message about a consumption experience that had occurred to them (generation) or someone else (transmission). WOM valence was our dependent variable. Results showed that threatened participants generated more positive but transmitted more negative WOM than non-threatened participants ($ps < .05$).

Experiment 4 tested the prediction that individuals whose self has been threatened transmit more negative (positive) WOM than those whose self has not been threatened when the attachment to the person to whom the experience occurred is low (high). We manipulated threat in the same way as previous experiments and attachment by asking respondents to talk about a consumption experience occurred to a relevant other (high attachment) or an acquaintance (low attachment). WOM valence was our dependent variable. Results showed that when attachment was low (high) WOM from threatened participants was more negative (positive) than WOM from non-threatened participants ($ps < .05$). This experiment provided further evidence on our perspective by focusing on WOM transmission and showing that the tendency to transmit negative WOM was moderated by attachment to the person to whom the experience occurred.

This research offers two important contributions to the WOM literature. First, we provide novel insights into the controversy on whether consumers engage in positive versus negative WOM. By introducing the distinction between WOM generation and transmission, we propose one means to reconcile previous conflicting findings is recognizing consumers behave differently during these two stages. Second, we advance our understanding of the role of self-enhancement as a WOM driver, by showing that consumers do not merely engage in positive WOM, but also in negative WOM to self-enhance. Thus, by investigating how the self-enhancement motive differentially drives consumers' behavior across generation and transmission, this research integrates previously inconsistent perspectives as to prevalence of positive or negative WOM in a parsimonious manner.

For more information, contact: mdeangelis@luiss.it

7.5 Symposium: On Shaky Ground: Exploring Materialism and Insecurity

Room: Cottonwood

Chair: Ayalla Ruvio, Temple University, USA

Discussion Leader: Jim Burroughs, University of Virginia, USA

How do Materialists React to Self-Threats? Not Always Like You Think

Jaehoon Lee, University of Houston-Clear Lak, USA*

L. J. Shrum, University of Texas at San Antonio, USA

Materialism refers to a set of centrally held beliefs about the importance of possessions (Richins & Dawson, 1992). Research indicates that materialism is associated with several different forms of negative psychological outcomes such as diminished psychological well-being (Burroughs & Rindfleisch, 2002), social anxiety (Kasser et al., 2004), and self-doubt (Chang & Arkin, 2002). Materialism is also associated with diminished psychological needs such as self-esteem (Chaplin & John, 2007), sense of belonging, perceived meaningful existence, and control over one's life (Kashdan & Breen, 2007).

Much of human behavior is directed toward maintaining basic psychological needs. Failure to satisfy these needs is painful and distressing, resulting in feelings of self-threats. Threats to the self can have a wide range of effects on psychological and behavioral responses as a way to repair threatened needs. The relationship between threatened needs and repair has been shown in studies on need to belong (Baumeister & Leary, 1995), self-esteem (Polivy, et. al, 1988), sense of power (Rucker & Galinsky, 2008), and meaningful existence (Greenberg et al., 1990). Though the sources that threaten these different needs are diverse, social exclusion is powerful enough to threaten the four fundamental needs (belonging, self-esteem, control, meaningful existence; Williams, 2001).

Molden et al. (2009) propose a specific distinction in types of social exclusion: being ignored and being rejected. Being ignored is implicit, and tends to threaten efficacy needs such as control and a meaningful existence. In contrast, being rejected is explicit, and tends to threaten relational needs such as self-esteem and belonging (Williams, 2009). Specifically, the differential needs hypothesis (Lee & Shrum, 2010) suggests that being ignored threatens efficacy needs, but has no effect on relational needs, whereas being rejected threatens relational needs, but has no effect on efficacy needs. This differential needs threat, and people's attempts to repair threatened needs, leads to different behavioral outcomes. When efficacy needs are threatened through being ignored, people try to repair the threatened needs of control and a meaningful existence through behaviors that gain attention. In contrast, when relational needs are threatened through rejection, people try to repair the threatened self-esteem and belonging by acting in more affiliative, prosocial ways.

In this research, we address the question of how high materialists handle self-threats such as being rejected or being ignored, and the implications for behavioral responses to repair the needs that are threatened. High materialists represent an interesting group because, as noted earlier, they score lower on both efficacy needs (lower feelings of power, lower feelings of a meaningful existence) and relational needs (lower self-esteem, lower feelings of belonging). Consequently, they should be particularly sensitive to situations that threaten those needs.

Based on this reasoning, if experiences of being ignored and rejected threaten efficacy needs and relational needs respectively, we would expect a set of somewhat counterintuitive results. Being ignored should increase attempts to gain attention (e.g., through increased conspicuous consumption) more for high than for low materialists, because efficacy needs such as control and a meaningful existence are threatened. In contrast, being rejected should increase attempts to behave in more affiliative, prosocial ways (e.g., through increased charitable donations), and also more for high than for low materialists. It is this latter prediction that is counterintuitive. Although the prediction that high materialists would be more prone to conspicuous consumption than low materialists is intuitive, the notion that high materialists would also express greater preferences for donating money runs counter to most conceptualizations of materialism.

Three experiments tested our predictions. In experiment 1, participants were asked to write about a time in which they were either passively ignored or actively rejected. Next, participants completed scales measuring their preferences for conspicuous consumption and helping others, after which they completed measures of materialism. Simple slope analyses showed the predicted interaction between social exclusion and materialism. Being ignored produced greater preferences for conspicuous logos than being rejected, and this effect was greater for high than for low materialists. Also consistent with predictions, being rejected produced greater preferences for donating money to help others than being ignored, and this effect was likewise greater for high than for low materialists.

In Experiment 2, we tested our hypotheses through a manipulation that actually ignores participants. We used an Internet-based game called Cyberball. The game involves a 3-way ball toss. In included conditions, participants are included in the ball tossing. In ostracism conditions, participants do not get any ball tosses, and are effectively ignored. Previous research has found that these manipulations particularly threaten efficacy needs such as control or power (Warburton, Williams, & Cairns, 2006), consequences typical of individuals who have been ignored rather than rejected. Next, participants indicated their preferences for conspicuous logos, and indicated their preferences for helping others. Simple slope analyses again revealed the predicted interaction. Being ostracized produced greater preferences for conspicuous consumption than being included, and this effect was greater for high than for low materialists. However, as expected, being ostracized had no effect on donation preferences relative to being included.

In Experiment 3 (in progress), we used a manipulation that actively rejects participants. Participants were led to believe they were participating in a discussion with two fellow students over a computer network, but in reality they received a series of preprogrammed responses. In included conditions, participants are accepted by the other fellow students in the course of the discussion. In rejected conditions, participants received explicit feedback that the other fellow students did not like or accept them. Next, participants indicated their preferences for conspicuous logos, and indicated their preferences for helping others. We expect that those who are rejected will express a stronger preference for helping than will those who are included, and this effect will be greater for high than for low materialists. However, being rejected will have no effect on conspicuous consumption, relative to being included.

For more information, contact: lee@uhcl.edu

Real Life Existential Stress and Materialism: Materialism under Terrorist Attacks

Ayalla Ruvio, Temple University, USA*

Eli Somer, University of Haifa, Israel

Aric Rindfleisch, University of Wisconsin-Madison, USA

Recently, consumer researchers have begun to examine the influence of existential insecurity on a variety of consumption-related behaviors. In particular, drawing upon Terror Management Theory, this research suggests that existential insecurity promotes materialistic values (Arndt, et al., 2004; Mandel & Smeesters 2008; Rindfleisch et al., 2009). While this pioneering literature substantiated the relevance of existentialism to consumer research, it also leaves us with theoretical and methodological challenges. Specifically, this paper focuses on the directionality of the relationship between materialism and existential insecurity, arguing that the relationship between the two is far from unequivocal. We address this issue by conducting a field study that compared the association between materialism and traumatic stress among participants who were exposed to prolonged terrorist shelling in the southern part of Israel (the extreme-stress group) and of individuals who were living in safer parts of the country and were not under similar threats (the low-stress group). We focus on their exposure to terrorist attacks, their perceived threat (Bleich, Gelkopf and Solomon 2003), and their level of PTSD (Foa et al. 1993).

Both the literatures on materialism and stress provide support for an inverse relationship between existential stress and materialism. Studies on materialism have demonstrated its negative effect on consumers' well being in general and its relationship to high levels of anxiety (Burroughs & Rindfleisch 2002). If we regard existential anxiety as part of well being, it is plausible to infer that materialism may be a contributor to existential anxiety. The research on stress identifies the social support offered by significant others as a psychological resource for mitigating the negative consequences of traumatic events (e.g., Ozer et al. 2003). Given that materialistic people favor possessions more than their personal relationships (Richins & Dawson 1992), it can be assumed that they have a weaker social support network, which ultimately leads to greater stress.

Finally, we posit that while traumatic stress does not promote materialistic values, it does facilitate materialistic behaviors (Mandel & Smeesters 2008), especially maladaptive consumption behaviors. This view is aligned with the traumatic stress research, which consistently shows that stress can lead to a variety of maladaptive behaviors (e.g., smoking, risky behavior; Cavanaugh et al. 2010). In this study we focus on compulsive (Babin, et al. 1994) and impulsive buying behaviors (Beatty & Ferrell 1998), and escapism through shopping (Mathwick et al. 2001).

The study design consists of 139 participants in the extreme-stress group who experienced ongoing terrorist attacks and 179 individuals in the low-stress group who were exposed to these events via the media only. Our measures include

scales for materialism (Richins & Dawson 1992), threat perception and the level of exposure to terrorist attacks (Bleich et al. 2003), PTSD Symptom Scale (Foa et al. 1993), compulsive (Babin et al. 1994) impulsive buying (Beatty & Ferrell 1998) and shopping escapism (Mathwick et al. 2001).

A MANCOVA procedure with materialism (high vs. low) and stress (extreme vs. low) as independent variables demonstrated that the level of materialism does not seem to vary as a function of the level of the stress experienced by our participants. However, all of the stress related constructs varied as a function of the level of materialistic values held by them. In addition, an interaction between materialism and level of stress showed that highly materialistic individuals in the extreme-stress group reported higher levels of exposure to traumatic events, perceptions of threats and PTSD symptoms.

We tested two competing models. The first, guided by TMT theory, posited that the intensity of stress would mediate the relationships between exposure to traumatic events, perceived threats and materialism, (exposure, threat perceptions → PTSD → materialism). Alternatively, we proposed that materialism would affect peoples' perceptions about their exposure to traumatic events and level of threat, which would determine their level of stress (materialism → exposure, threat perceptions → PTSD). Because these are mediation models, we followed Zhao, Lynch and Chen's (2010) procedure, using Preacher and Hayes' (2008) script for SPSS. The results supported the second model, indicating a significant indirect effect for exposure to traumatic events and perceived threat. We also found significant relationships between materialism and the mediators – perceived exposure and perceived threat -- and between these constructs and PTSD. In addition, we found no significant relationships between materialism and symptoms of PTSD, supporting a full-mediation model. A multi-group SEM analysis was also used to test two competing models. The second model produced better fit indexes. In addition, people who experienced high levels of post-traumatic symptoms engaged in maladaptive consumption behavior such as impulsive buying and shopping escapism.

The results of this study support our view of materialism as a predictor of existential insecurity. The findings demonstrated that under mortal threat it is the level of materialistic values that affects the person's reaction to traumatic stress. When traumatic stress increases, materialistic people react more adversely, often by engaging in maladaptive consumption behaviors. Future research on materialism and stress should focus on the mechanism behind this relationship.

For more information, contact: aruvio@temple.edu

Recovery or Reset? The Role of Materialism in Stimulating Consumer Spending

Dee Warmath, University of Wisconsin-Madison, USA*

Nancy Wong, University of Wisconsin-Madison, USA

Recent economic circumstances in the U.S. and worldwide have led to a revival of interest in Keynesian economics and the relationship between rational expectations for future events and the self-fulfilling role of “apparently irrelevant beliefs of actors (or animal spirits)” (Akerlof and Schiller, 2009). The key to recovery is managing these animal spirits—reducing fear, increasing general confidence and providing incentives to act or invest (Lawson, 1993). Thus, the key is creating expectations in investors' minds that things will work out favorably if they act on their desire for profit rather than hoard their cash. Akerlof and Schiller (2009) suggest that it is our lack of understanding of animal spirits' role in our economy that prevented policy makers and consumers from seeing the economic “rollercoasters” that they ride. Including animal spirits in economic models, they argue, would account for the irrationality and reactionary moves of consumers.

Keynes (1936) suggests that in times of economic uncertainty, animal spirits support rational decision making to produce a state of confidence that leads to initiative and economic performance. While there is widespread belief in the operation of animal spirits among practitioners, the concept has been largely ignored by researchers until recently (e.g., Akerlof and Schiller 2009; DiMaggio 2002). However, to our knowledge, no empirical study exists in exploring the conceptualization of animal spirits in consumer decisions. In this paper, the concepts of materialism, optimism and hope are used to operationalize the construct of animal spirits. Keynes' "desire for economic prosperity" or profit can be restated in terms of materialism, or the centrality of possessions and their acquisition (Richins & Dawson, 1992). Keynes' "belief that the consequences of one's actions will be positive" can be restated as optimism, or the general, enduring disposition of expecting things to work out favorably (Carver et al., 2009). Keynes' "urge to act even in the face of uncertainty and a creativity that invents new and better paths to reach a desired end" can also be restated in terms of the agency and pathways of hope as a motivational state (Snyder et al., 1991). Based on this psychological representation of animal spirits, consumers who are more materialistic, more optimistic, and who have greater hope will have stronger animal spirits.

The first study used the November 2009 survey of a nationally representative sample of U.S. consumers age 18 and older with 1,620 respondents. Confidence/concern regarding the U.S. economy in general and personal economic perception were measured using a weighted score of consumer responses to a series of questions relating to the near-term outlook for the U.S. economy in general developed by The NPD Group, Inc. Since all these scales have been extensively validated, they demonstrate strong composite reliabilities (Materialism = .97, Optimism = .91, Hope = .95, General Confidence = .96, Personal Confidence = .96). Spending behavior was measured by the retail response indicator developed by The NPD Group, Inc.

We examined the joint effects of materialism, optimism and hope on consumer confidence and purchase intention using structural modeling. This methodology allows us to estimate the specific impact of each predictor on animal spirits, consumer confidence and purchase intention. The results in Study 1 largely supported our thesis that materialism, optimism and hope jointly contribute to animal spirits, which in turn bolsters purchase intentions. Animal spirits also exerted significant and positive effect on personal and general consumer confidence. However, when personal and general consumer confidence measures were introduced as mediators, the direct impact of animal spirits on purchase intention was diminished, suggesting mediation effects. Study 2 aims to replicate the findings from Study 1 at a special time of the year (December, 2009) when consumer confidence may be influenced by the Christmas shopping season and become more susceptible to the impact of animal spirits.

Study 2 repeats the analysis using the December 2009 wave of the survey with an additional 1,420 responses from a second nationally representative sample of the U.S. population age 18 and above. Materialism, optimism and hope again positively influenced animal spirits which in turn, positively impacted purchase intention. However, animal spirits had a significant and negative impact on general confidence while it still had a positive impact on personal confidence, perhaps reflecting the worsening economic conditions at that time. It also showed that psychological antecedents of animal spirits provides a separate measure of personal confidence that is distinct and predictive of purchase intention rather than general confidence measure. Study 3 (in progress) further explores the relationship between monthly measures of animal spirits, actual retail sales, and consumer confidence indices (conference board and Michigan's Index of Consumer Sentiment) to compare the predictive validities of these measures. Our findings will provide useful comparisons between the macro- and micro-perspectives of consumer sentiments during economic uncertainty. It will also explore the role of materialism as a key motivator of consumer spending.

Dealing with Insecurities through Luxury Consumption

Liselot Hudders, Ghent University, Belgium

Mario Mario Pandelaere, Ghent University, Belgium*

Materialism – the unbridled acquisition of material goods – is related to low self-esteem and feelings of insecurity. People often try to compensate for their insecurities through conspicuous consumption of luxury products (Rucker & Galinsky, 2009; Sivanathan & Pettit, 2010). The current paper investigates whether luxury consumption may actually raise materialists' sense of well-being. While previous studies on luxury consumption have extensively investigated consumers' *perceptions* of luxuries and the *motivations* behind luxury consumption, very few studies have studied the actual *effects* of luxury consumption. Sivanathan and Pettit (2010) found that merely *thinking* about owning a high-status car (vs. a non-status car) is sufficient to bolster self-esteem from subsequent self-esteem threats. Zhong and Mitchell (2010) found that frequency of leisure consumption increases satisfaction with one's leisure time and with one's social life, which in turn affects subjective well-being.

The present research extends this work by investigating different aspects of subjective well-being that could be affected by luxury consumption. Subjective well-being is a multifaceted construct. It consists of a *cognitive* aspect of one's satisfaction with life in general or with specific life domains and of an *affective* aspect measured as the frequency of one's pleasant and unpleasant emotional experiences. The cognitive and affective aspects are distinct components of the subjective well-being construct and consequently, they might relate differently to other constructs (Diener, Ng, Harter & Arora, 2010). The current research investigates how these two different aspects of subjective well-being are affected by luxury consumption.

Luxury brands offer both functional and psychological benefits to consumers that may affect their subjective well-being level positively (Kapferer & Bastien, 2009). The functional benefits derive from the fact that luxury brands offer an excellent quality to the consumer and deliver pleasure and sensory gratification to the self. This is consistent with research that has demonstrated that hedonic product usage is positively related to subjective well-being (Zhong & Mitchell, 2010). We therefore propose that consumers' affective well-being may benefit from luxury consumption. Moreover, we propose that, both materialistic and less materialistic consumers may derive similar levels of sensory gratification from luxury consumption. Correspondingly, luxury consumption should raise positive mood and decrease negative mood for materialistic and non-materialistic consumers alike.

Luxury consumption might also affect the cognitive aspect of subjective well-being, namely satisfaction with life. There are two reasons to assume that luxury consumption may affect the satisfaction with life of materialistic consumers more than that of less materialistic consumers. First, materialistic consumers are more likely to engage in social comparison than less materialistic consumers; their satisfaction of life may therefore reflect more their assumed relative position in their reference group. Second, materialists may more readily believe that luxury consumption provides them with a higher status, not only within their own reference groups but also within their aspiration groups (Mandel, Petrova, & Cialdini, 2006).

The current paper investigates the relations between self-perceived luxury consumption, materialism and cognitive and affective subjective well-being aspects simultaneously, in a structural model. The results of a large scale survey in Dutch-speaking Belgium ($N = 2206$). Materialism was measured with the Material Values Scale (Richins & Dawson, 1992). We adjusted the PANAS items (Watson, Clark and Tellegen, 1988) to measure frequency of positive and

negative mood over the past month. We measured self-perceived luxury consumption as the tendency to buy luxury brands for ten different product categories. Finally, we included the Satisfaction with Life Scale (Diener et al., 1985).

Considering the close tie between materialism and luxury consumption (cf. Richins & Dawson, 1992), it is not surprising that materialistic consumers are more inclined to consume luxury goods than less materialistic consumers. The more interesting, and novel aspect of our study, however, concerns the impact of luxury consumption and how this may differ for materialistic versus less materialistic consumers. Overall, we found that luxury consumption leads to enhanced positive mood, diminished negative mood and increased satisfaction with life. In addition, we found that although the impact on negative and positive mood is not moderated by materialism, the impact of luxury consumption on satisfaction with life is more pronounced for materialistic consumers than for less materialistic consumers. These results are seemingly in contrast with previous studies linking materialism to low subjective well-being. However, our study focuses on the short-term impact of luxury consumption. In short term, materialists seem to benefit more from luxury consumption than less materialistic consumers, at least concerning satisfaction with life. Through luxury consumption, then, materialism is positively related to satisfaction with life (which also is indicative of high self-esteem) because materialists benefit more from and engage more in luxury consumption. In this sense, luxury consumption seems to address materialists' sense of insecurity.

However, overall, materialism is still associated with low subjective well-being. So, while luxury consumption raises their well-being, at all levels of luxury consumption, materialists still report a lower sense of well-being than less materialistic consumers. Nonetheless, because of the short-term rewards it brings, luxury consumption may actually "lock in" materialists in their materialistic lifestyle (i.e. a luxury trap). So, even though luxury consumption (in particular, status consumption) seems insufficient to fully address materialists' sense of insecurity, they nevertheless continue to see this as a solution. This luxury trap may disable them from dealing more effectively with their insecurities by pursuing more gratifying, intrinsic goals.

For more information, contact: Mario.Pandelaere@ugent.be

7.6 Individual Papers: Can You Feel the Love Tonight: Sensations and Embodied Cognition

Room: Mesquite 2

Chair: Claudiu Dimofte, San Diego State University, USA

Muscling Your Way to a Positive Future

Eunice Kim Cho, University of Toronto, Canada*

Hee-Kyung Ahn, Hanyang University, Korea

Consumers are often faced with the task of choosing between alternatives that differ on the degree of riskiness. These choices can be experienced in numerous domains ranging from the more trivial decisions such as which lunch entrée to order to more substantial decisions such as which career path to pursue. Whether an individual chooses to be more risk-seeking or risk-averse can be influenced by external (e.g. situational or contextual) as well as internal factors (e.g. emotional and cognitive states of the decision maker). For example, when in the domain of losses, prospect theory suggests that individuals are more risk-seeking (Kahneman and Tversky 1979). Lerner and her colleagues (2001; 2003) find that anger leads to risk-seeking choices, while fear leads to risk-averse choices. Other research finds that being primed with power in social contexts (i.e. having influence over others) can lead to optimistic risk perceptions and the tendency to engage in risky behaviors (Anderson and Galinsky 2006).

Our research, however, examines a heretofore unstudied factor—the effect of physical or bodily states on choice between risky alternatives. In particular, we study how the physical exertion of power or strength influences preference for risky alternatives. We propose that exerting strength, and thereby feeling strong, increases the perceived controllability of ensuring a positive outcome in a given context. Considering that cognition is “embodied”, and bodily states have an impact on individuals’ thoughts (Barsalou 2008; Niedenthal et al. 2005), we hypothesize that exerting strength leads individuals to choose riskier options compared to not exerting strength and feeling weaker. We test these hypotheses in a series of five experiments.

In Study 1a, participants were told they would be playing a game of rock-paper-scissors (adapted from Schubert 2004). Those assigned to the strength (control) condition were told to play “rock” (“scissors”) and to hold that position until instructed to release it. Then all participants were asked to choose between two gambles, with one gamble being riskier than the other. Consistent with our prediction, those who formed the “rock” were more likely to choose the riskier gamble (50%) compared to those who formed the “scissors” (6%). The design of Study 1b was identical to Study 1a except that those assigned to the control condition played “paper”. As predicted, participants in the strength condition were more likely to choose the riskier gamble (70%) compared to those in the control condition (18%). Manipulation checks confirmed that participants holding the “rock” form exerted more strength and felt physically stronger than those holding the “scissors” or the “paper” forms.

Study 2 finds that physical strength influences individuals’ perception of risk. As in Study 1a, participants were randomly assigned to strength and control conditions. Then they were presented with a risky gamble and were asked to rate their chances of winning the gamble. As predicted, participants in the strength condition indicated that their likelihood of winning was higher than those in the control condition.

In Study 3, we manipulate strength by having participants trace a stick figure and either apply strong pressure on the pencil or apply no pressure. After tracing the image, participants chose between two gambles. Consistent with Studies 1 and 2, Study 3 demonstrates that participants in the strength condition (strong pressure) were more likely to choose the riskier gamble (64%) compared to those in the control condition (40%). Manipulation checks confirmed that participants applying strong pressure while tracing exerted more strength and felt physically stronger than those applying no pressure.

In discussing physical strength, one must consider differences across individuals in their ability to exert and use one’s physical strength. Those differences can be attributed to factors such as age, athletic ability, and perhaps most obviously, to gender. On average, men tend to be physically stronger than women. And it is likely that men, compared to women, have a more salient or chronic sense of feeling physically strong. We expect, therefore, that the effect of physical strength on risk-seeking will be attenuated in men. Study 4 examines differences across men and women. Study 4 also addresses a potential alternative explanation that physical strength induces a reckless, action-oriented mindset, which can increase preference for riskier gambles. So instead of choosing between gambles, participants in the next study were asked to indicate whether they wanted to purchase auto insurance with injury coverage. This way, we predict that participants feeling strong would still be more risk-seeking, but manifest it by being less likely to take action and purchase injury coverage.

In Study 4, participants were randomly assigned to the strength or control condition. Participants in the strength condition firmly grasped a pencil in their fists, while those in the control condition lightly held a pencil between their thumb and index fingers (adapted from Hung and Labroo 2011). While holding the pencil, they imagined purchasing auto insurance and indicated whether they wanted to include injury coverage at an additional cost. Afterwards, they

rated the extent to which they felt they had control over what happens in the future while driving their car. Consistent with our prediction, participants in the strength condition were less likely to include injury coverage (61%) compared to those in the control condition (80%). Furthermore, we find that among women, the strength manipulation significantly influenced the likelihood of including injury coverage (strength = 88% vs. control = 57%), while the effect was attenuated among men (strength = 55% vs. control = 65%). Also consistent with our hypothesis, we find that participants in the strength condition perceived having more control regarding what happens in the future while driving their car.

These findings contribute to the literature on risk and decision making, as well to the literature on embodied cognition, by demonstrating that exerting physical strength can increase the perceived controllability of an outcome and hence increase preference for riskier alternatives. Furthermore, our research enriches our understanding of the differences in risk-seeking tendencies between men and women.

For more information, contact: eunice.kim@rotman.utoronto.ca

Ambient Temperature and Conformity in Financial Decisions

Xun (Irene) Huang, The Chinese University of Hong Kong, Hong Kong*

Meng Zhang, The Chinese University of Hong Kong, Hong Kong

Michael K. Hui, The Chinese University of Hong Kong, Hong Kong

Robert S. Wyer, Jr., The Chinese University of Hong Kong, Hong Kong

Do race-track bettors place more money on the “favorite” on warm racing days than on cool ones? Does the temperature of a room influence investors’ forecast of stocks? The research we conducted, both in the laboratory and at the race track, suggests that the answer is yes.

Physical experience can influence many judgments to which they are not objectively relevant (Ackerman, Nocera, & Bargh, 2010). In particular, physical warmth can lead people to judge another person as friendlier or as psychologically close to themselves (IJzerman & Semin, 2009; Williams & Bargh, 2008).

Although the aforementioned findings are provocative, however, they do not necessarily have implications for the impact of ambient temperature on individuals’ behavioral decisions, particularly under conditions in which the decisions have consequences for the individuals themselves. Moreover, most prior research has focused on the adverse effects of uncomfortable temperature (e.g., very hot or very cold). For example, hot temperature can give rise to aggression (Anderson et al., 2000). Whether ambient temperature within the range that people experience in the course of daily life affect their behavior in situations outside the laboratory has not been established. Because people in industrial countries spend an average of 93% of their time inside (Woodcock & Custovic, 1998), the effects are of particular interest.

Our focus in this article is on the influence of ambient temperature on the disposition to conform to other’s decisions under conditions in which these decisions have personal consequences. Conformity has been a subject of investigation in psychology since Asch (1946) and is a concern in economics as well (Herding; Bikhchandani & Sharma, 2001). Prior research has identified three primary determinants of the disposition to conformity: (a) *Information-based conformity* - individuals may believe that others’ decisions are more valid than their own, especially when they feel uncertain about their opinion (Cialdini, 2001); (b) *Norm-based conformity* - individuals may perceive that others’ decisions are socially desirable, independently of their validity (Baumeister & Leary, 1995); and (c) *Perception-Behavior Link* - people may

automatically match the behavior of others with whom they interact with, independently of any concern about accuracy or approval (Chartrand & Bargh, 1999).

The influence of ambient temperature on conformity is not immediately obvious. As IJzerman and Semin (2009, 2010) note, however, high temperature can blur the distinction between self and other whereas low temperatures can sharpen it. To this extent, warm temperature could influence people's tendency to conform to others for any of the three reasons noted earlier. That is, individuals might conform to the opinions of others to whom they feel socially close because they feel that their opinions are more valid than their own (Mussweiler, 2003). Second, people who feel socially close to others are more likely to experience a sense of "we-ness", leading them to consider other's decisions to be socially desirable (Bearden & Etzel, 1982). Finally, automatic behavior matching can increase with interpersonal closeness (Chartrand & Bargh 1999).

In the situations we constructed, however, the first possibility seems more plausible than the others. When people place bets at the race track, for example, their primary objective is to pick a winner and not to receive social approval. Moreover, they place their bets consciously and deliberately and so these decisions are unlikely to be guided by automatic processing.

We tested our propositions in two laboratory studies and a field study. Experiment 1 tested the hypothesis that conformity in stock purchase varies as a function of the temperature (within a comfortable range) experienced. It is a 2 (Temperature: High vs. Low) \times 2 (Others' decisions: present vs. absent) between-subject design. All participants were presented with six graphs depicting changes of a price of a stock and were asked to indicate whether they would buy or sell each stock. They were told that if they predicted the price to rise (decrease) in the next period, they should buy (sell). In *others'-opinions-present* conditions, participants were shown the predictions that the majority of previous participants had made for each stock. Then, the pattern of sell/buy each participant made was compared to the patterns that had allegedly been predicted by the majority of previous participants. In control conditions, no such information was provided. Our experimental results showed that participants in the high (low) temperature condition were more (less) likely to conform to majority of previous participants. In the control conditions, the number of matches did not differ across temperature conditions.

Experiment 2 replicated the results of the first experiment using a different scenario. In addition, we tested the mediating role of the perceived social proximity. The participants in both high and low temperature conditions were told to make a bet. They were told that there would be a boat race between two teams (i.e. A and B). They were also informed the number of bettors who had already betted on each team, in particular, they were told that the majority of previous bettors had made a bet on Team A. Afterwards, participants were asked to make a bet themselves. Our experimental results showed that participants in the high (low) temperature condition were more likely to follow the crowd (stand out) and bet on the majority-betted (minority-betted) team. We confirmed that such effect is mediated by their perceived social proximity to other bettors. Moreover, we measured participants' positive and negative affect, and their involvement, arousal, relaxation and tiredness. The results were not due to these factors.

The field study is conducted in the context of horse race in Hong Kong for three consecutive years (2007 - 2009). We focused on the odds of winning. The horse with the lowest odds is the "favorite". We recorded actual hourly temperature as temperature levels. We hypothesized that as the temperature increased, people would be more likely to follow the majority. We observed that a higher temperature was correlated with (a) a greater herding tendency toward the favorite and (b) a more polarized distribution of odds within a given race. All results confirm our expectation.

For more information, contact: huangxun@baf.msmail.cuhk.edu.hk

Cross-Modal Influences of Acoustic Product Cues on Taste Perceptions

Klemens M. Knoeferle, University of St. Gallen, Switzerland*

David E. Sprott, Washington State University, USA

Andreas Herrmann, University of St. Gallen, Switzerland

Recently, there has been growing interest to understand various crossmodal effects in product perception – the phenomenon whereby information available to consumers in one sensory modality influences information in other sensory modalities (Krishna, in press; Krishna, Elder, & Caldara, 2010; Krishna & Morrin, 2008; Spence, in press; Spence & Gallace, 2011). Few studies, however, have focused on acoustic cues as antecedents of crossmodal effects. We address this gap by reporting two experiments demonstrating that a pleasantness manipulation of acoustic product cues can affect subsequent taste perceptions of an associated product, and that this effect only holds for those with a high enjoyment for product sounds.

Previous research suggests that product-inherent sounds can influence product perceptions in other sensory modalities. Intrinsic sounds occur during product usage or consumption and are either caused by the product itself (e.g., engine sounds) or by interaction with the product (e.g., chewing sounds). Prior research has demonstrated that vibrotactile pleasantness ratings of electric toothbrushes as well as the perceived crispness of potato chips are influenced by the volume and spectral composition of the toothbrush and biting sounds, respectively (Zampini, Guest, & Spence, 2003; Zampini & Spence, 2004). There is also growing evidence that sounds not generated by the product itself (e.g., music, environmental noises) can have a crossmodal influence on product evaluations. For example, Woods et al. (2011) report significantly higher (lower) perceptions of sweetness and saltiness in quiet (loud) white noise conditions. In another recent study, Seo and Hummel discovered a halo effect that resulted in odors being rated more favorably under pleasant (compared to unpleasant) background sound conditions (Seo & Hummel, 2011).

Contrasting with previous research, the current research focuses on crossmodal effects of sounds that are not inherent, but still associated, to the evaluated product. For example, there is a relationship between the sound of a coffee machine and the cup of coffee it produces, since the functionality of a coffee machine is reflected by its sound and may influence the quality of the output product. We thus hypothesize:

Pleasant (vs. unpleasant) product sounds will lead to more (vs. less) favorable taste evaluations of a related product.

Since we expect coffee machine sounds to serve as *diagnostic* external information in a coffee tasting task, we do not expect any discounting of the effect in the sense of Schwarz and Clore (1983).

The positive effect of an external but diagnostic sound on taste will not be discounted when the sound is made salient.

Also, recent findings reported by Krishna and Morrin (2008) demonstrate that the crossmodal influence of *non-diagnostic* haptic cues is moderated by consumers' preference for haptic input, indicating that those with a higher preference for haptic input have an increased awareness of the irrelevance of a non-diagnostic haptic cue and hence discount its influence. Conversely, we propose that the crossmodal influence of *diagnostic* extrinsic sounds should be more pronounced for those with a higher preference for auditory input, since these consumers have an increased awareness of the diagnostic sound's relevance.

The effect of auditory pleasantness on taste evaluations will be more pronounced the higher the individual preference for product sounds.

Experiment 1

Experiment 1 tests whether coffee machine sounds varying in auditory sharpness, and therefore sensory pleasantness (Fastl & Zwicker, 2007), influence subsequent coffee taste evaluations. Auditory sharpness was manipulated by applying systematic frequency manipulations to a professionally recorded coffee machine sound. We also manipulated the salience of the sounds by randomly including a sound-rating task for half the participants, resulting in a 2 (sharpness: low, high) \times 2 (salience: low, high) between-subjects design.

Participants were randomly exposed to one of two machine sounds and evaluated the taste quality of a cup of coffee. The procedure led participants to believe that the stimulus sound (played back via speakers behind a room divider) originated from the machine preparing the coffee, while the coffee was in fact prepared in an adjacent room.

To rule out response bias, participants mentioning the machine sound after the experiment were excluded from analyses. There was a significant main effect of sound sharpness on taste such that taste quality was lower (higher) after exposure to a high (low) sharpness sound. A main effect of sound salience indicated that in high salience conditions, participants gave higher taste evaluations. The interaction between sound sharpness and salience was insignificant.

Experiment 2

Experiment 2 employed physically modified coffee machines differing in auditory sharpness (low, high). After tasting the coffee prepared by one of the two machines, participants rated the perceived taste and completed a scale consisting of three items in 7-point format: "It can be pleasant to listen to product sounds", "I enjoy hearing the sound a product makes", and "Listening to the sounds of a product can be fun". These items were developed by the authors to capture consumers' differential hedonic response to product sounds; similar to the autotelic dimension of the need for touch scale (Peck & Childers, 2003).

To minimize the influence of brand information (Dodds, Monroe, & Grewal, 1991), respondents who had indicated awareness of the machine/coffee brand were excluded from the analyses. There was a main effect of sound sharpness such that taste quality was lower after exposure to a high-sharpness machine sound than after exposure to a low-sharpness machine sound. A significant interaction between sound pleasantness and product sound enjoyment indicated that only consumers scoring high on the sound enjoyment scale were affected in their taste evaluations.

Discussion

Experiments 1 and 2 demonstrate that coffee machine sounds varying in auditory pleasantness affect the perceived taste of the produced coffee (supporting H1a). Experiment 1 demonstrates that the effect is not discounted when sound is made salient (supporting H1b), while experiment 2 suggests that the effect only pertains to those with high enjoyment of product sound (supporting H2). Our research extends previous findings in sensory marketing by showing that acoustic cues can affect sensory perceptions in subsequent product experiences, even if the two sensory events originate from different sources and are separated in time.

For more information, contact: klemens.knoeferle@unisg.ch

Brand-Related Background Music and Consumer Choice

Arnd Florack, University of Vienna, Austria

Susanne Leder, Zeppelin University, Germany

Claudiu Dimofte, San Diego State University, USA*

Previous studies have demonstrated that background music can have extensive effects on consumer behavior and choice. In a meta-analysis, Garlin and Owen (2006) analyzed 32 studies on background music and concluded that it has robust effects on consumer spending, affective responses, and shopping time. Studies have demonstrated that a fit between the shopping context and background music increases both sales receipts (Areni & Kim, 1993; Jacob et al., 2009) and the time customers spend in a store (Milliman, 1982). North et al. (1999) showed that music can also have effects on specific choices. They played German (French) music in a grocery store and found that customers bought more German (French) wine when German (French) music was played. However, there are no studies that evaluate whether background music might also affect preferences for specific brands, nor is it clear what the particular processing mechanism is behind these effects.

We propose that music strongly associated with a brand will make brand purchase more likely when included in the background. Behind this hypothesis is the assumption that exposure to a brand-related cue automatically activates the associated brand in working memory. This research suggests that repeated brand cues exposure enhances the brand's perceptual fluency and the accessibility of the brand attitudes, which would then shape consumer choice. However, the consumer research literature has also shown that attitudes are often not predictive of choice and that individuals are more likely to rely on their attitudes when they make a spontaneous rather than a deliberate choice (Fazio et al., 1989; Wilson & Schooler, 1991). Hence, we also expect that the effects of brand-related music on choice be weaker or absent when individuals choose more deliberately.

STUDY 1

The aim of the first study was to assess whether the inclusion of a song that has been used in advertising within the background music played in a retail store leads to an increase of sales for the associated brand.

Design and Procedure. The study was conducted in a large grocery store in Germany. Among other products, the store sells a variety of brands of beer, including our target brand – Beck's. Since 1991, versions of the song *Sail Away* have been used in advertising for Beck's beer in Europe. Notably, the song has been used almost exclusively for a particular brand line in the Beck's portfolio (Beck's Pils) and was not associated with other beers in the Beck's line. The critical test was conducted on a Saturday in March. On this day, a segment of the commercial song of Beck's Pils was played every 15 minutes for 10 seconds as part of the background music. We collected the sales of the target brand (Beck's Pils), the other beers in the Beck's line, and all daily beer sales in the store. All sales were recorded by the grocery store's inventory management system. We also obtained the sales during the four Saturdays prior to the test day.

Results. We conducted chi-square tests to examine the effects of the brand-related background music on sales. First, we compared the sales on the test day with the mean sales during the four control days. There was no significant increase in beer sales when all brands were considered: $\chi^2(1, 10814) = 1.33, p = .25$. By contrast and in line with our hypothesis, the sales for Beck's Pils increased from a mean of 304 bottles during the control days to 437 bottles on the critical test day: $\chi^2(1, 741) = 23.87, p < .001$. Interestingly, we found a marginally significant reduction of sales in other beers in the Beck's line, from 726 sold on average during the control days to 660 bottles sold during the test day: $\chi^2(1, 1386) = 3.14,$

$p = .08$. The reduction in sales of the other brands on the test day compared to the control days was not significant: $\chi^2(1, 8806) = .50, p = .48$. Hence, the increase in sales of the target product (Beck's Pils) occurred to some extent at the expense of other Beck's products (i.e., through cannibalization). While during the control days the percentage of Beck's Pils in the total sales of all beer brands was 5.68%, it increased to 7.99% when the brand-related song was included in the background music. Similarly, the proportion of Beck's Pils receipts among total sales of Beck's products increased from 29.51% during the control period to 39.84% when the brand-related song was included in the background music.

STUDY 2

We tested here whether the effect of brand-related background music on choice is reduced when individuals assess more carefully the reasons for their choice (vs. a more spontaneous choice). We expected this moderation not to apply similarly for the effect of music on attitudes (i.e., attitudes would improve whenever brand-related music was present).

Participants and Design. One-hundred eleven students at a major university in Europe participated in the study. The design was a 2 (Beck's song: absent vs. present) x 2 (choosing style: experiential vs. rational).

Procedure. The study was conducted in the lab, via personal computers. Participants first completed a "concentration" task where they had to memorize numbers presented on the screen. Each number was presented for 10 seconds. It then disappeared and participants had to type in the memorized number after a 15-second delay. The music consisted of three short pieces of different chart songs (5 seconds each). This procedure was repeated 10 times. In the treatment condition, a piece of the Beck's Pils song played within the mix. Upon completion of the memory task, participants were asked to take part in a further study on shopping behavior. We asked them to imagine shopping for several items in a grocery store (noodles, beer, and detergent). For each item, participants were given a selection of three available brands. In the case of beer, they were Beck's Pils, Warsteiner Pils, and Krombacher Pils.

To vary the choice mode, we asked participants in the spontaneous decision condition to simply rely on their gut feeling. In the deliberate choice condition, participants were asked to think carefully about their choice and write down why they selected a brand. Participants in each condition indicated then which options they preferred. In the case of beer, they also decided how many beer bottles of the three different brands they would choose if they were to buy a beer crate which they could fill with 20 bottles from different brands. To assess the attitudes, we asked participants to evaluate each of the three different brands on two 9-point items anchored at 1 = *unattractive*, 9 = *attractive* and 1 = *does not appeal to me*, 9 = *appeals to me*, respectively (averaged into a single attitude score, Cronbach alpha = .95).¹

Results. We conducted a logistic regression where predictors were music (Beck's song absent or present), choosing style, and their interaction term. The choice of Beck's versus another brand was the dependent measure. The interaction between music and choosing style was significant: $B = 1.68, p < .04$. The single contrast for music in the deliberative choice mode was marginally significant: $B = 1.10, p = .08$. Results indicate that participants who chose spontaneously picked Beck's Pils more often when they listened to background music that included the brand-related song than when this song was absent, replicating the findings in study 1. The main effects for music and choosing style were not significant.

A two-way ANOVA was run to examine the effect of the background music and the choice mode on the amount of beer selected into the beer crate. The two-way interaction between the factors was significant: $F(1, 107) = 4.33, p < .04$. In the spontaneous choice condition, participants preferred Beck's Pils more when the background music included the brand-related song ($M = 9.79, SD = 5.03$) compared to when the background music did not include the brand-related

song ($M = 7.21$, $SD = 5.02$), $t(55) = -2.11$, $p < .04$. In the deliberate choice condition, the background music had no effect.

We further hypothesized that the exposure to a brand-related song in the background music leads to more positive attitudes towards the target brand. To test this, we conducted a two-way ANOVA with choice mode and background music as independent factors and the brand attitude as dependent measure. Indeed, participants had a more positive attitude toward the brand when the brand-related song was included in the background music ($M = 5.16$, $SD = 2.45$) than when it was not included ($M = 4.23$, $SD = 2.44$): $F(1, 111) = 3.87$, $p = .05$. The main effect of the choice mode ($F(1, 111) = .69$, $p = .41$) and the interaction between the two factors ($F(1,111) = .80$, $p = .37$) were not significant.

STUDY 3

Currently in the data collection stage at a major U.S. university on the West Coast. It assesses the proposed unconscious processing mechanism with the Implicit Association Test.

GENERAL DISCUSSION

This research demonstrates that subtle ambient cues implemented at retail such as the background music played in the store can produce significant choice effects, especially when consumers make routine, low-involvement buying decisions. In such circumstances, brand attitudes are implicitly primed by well-known (albeit not acknowledged) brand jingles, which then directly influence brand preference. The effect of background music on consumer attitudinal and behavioral response is more apparent when the association with the target brand is not consciously acknowledged.

¹ Fourteen of the participants indicated having recognized a song related to a beer brand (a typical proportion, cf. Ferraro et al., 2008). The results with and without these respondents were virtually identical.

For more information, contact: cdimofte@mail.sdsu.edu

7.7 Conversations: Automaticity

Room: Mesquite 1

Mark Forehand, University of Washington, USA

Jesper Nielsen, University of Arizona, USA

Hilke Plassmann, INSEAD, France

S. Christian Wheeler, Stanford University, USA

8.1 Symposium: Price Psychology: Advances on Context Effects in Pricing Research

Room: Four Seasons Ballroom 1

Chair: Nina Mazar, University of Toronto, Canada

The Effects of Price Primacy on Perceptions of Product Value

Uma Karmarkar, Harvard Business School, USA*

Baba Shiv, Stanford University, USA

Brian Knutson, Stanford University, USA

When consumers first attend to a product, they are engaged affectively, causing them to categorize the item as positive or negative. Research by Knutson et al. (2007) provides evidence that individuals' evaluations and subsequent purchase decisions are predicted most strongly by this initial liking (or disliking) reaction. In contrast, price is a difficult piece of information for consumers to evaluate independently (Hsee et al. 2003, 2005). It would be reasonable then, to assume that price plays a fixed role in the computation of value and should be factored into a decision the same way at any time. However, it is also possible that encountering price early on sets a context for processing subsequent information, thus shaping product perceptions and choice behavior. Price can signal an item's value or worth, to the point that price knowledge can bias perceptions of product quality at both the behavioral and neural level (e.g. Rao and Monroe 1989; Shiv et al. 2005, Plassmann et al. 2008). Thus we posit that price primacy leads consumers to think about value, focusing the evaluation process on whether a product is *worth* the given price. Rather than categorizing items as liked or disliked, this process would be more consistent with a threshold mechanism, in which a product qualifies for purchase if its value is judged to be high enough.

To investigate this hypothesis, seventeen individuals (9 females) made shopping decisions in an incentive compatible fMRI task adapted from Knutson et al. (2007). Across trials, a price was presented either before or after a photo of a product and participants then indicated whether they wanted to buy it (yes/no). Two of these choices were randomly selected to have real world consequences at the end of the experiment. Following the scanner task, participants listed their reservation price for each product. A value score, conceptually similar to consumer surplus, was calculated by subtracting the offered price from the individual's reservation price to determine how (in)expensive participants found each item to be. Participants also rated how much they liked each product - regardless of purchase - on a scale from 1 (Do Not Like) to 7 (Like Very Much).

Neural data were analyzed from the time during the decision process before participants indicated their choice, but when both price and product information was available to them. We focused these analyses on how price primacy influenced the neural coding of value (i.e. the integration of price and product information) and reward (i.e. liking for the product). Across trials, perceptions of value significantly correlated with brain activity in the medial prefrontal cortex (MPFC). This is consistent with previous research showing that activity in MPFC and nearby brain areas appears to be involved in integrating information such as product attributes or choice set composition, thus responding to the current worth or value of a decision target (e.g. Knutson et al. 2003, 2007; Hare et al. 2008).

Comparing product versus price primacy trials revealed qualitative differences in MPFC activity during the evaluation process. In product-first trials, MPFC activation increased for items that were subsequently purchased and decreased for items that were subsequently rejected. In price-first trials, MPFC activation also showed some increase for items that were chosen for purchase. However, for items that were not purchased, activity in these areas did not decrease, but remained at baseline. These results suggest that in product-first contexts, wanted items have a positive value but

unwanted items seem to be actively rejected with an explicit assignment of a negative value. The process is quite different in price-first contexts; here, unwanted items seem to be passively excluded from consideration, or ignored, consistent with our hypothesis of a threshold-type mechanism.

Liking of the product was correlated with activity in the Nucleus Accumbens (NAcc), a brain region associated with anticipated reward (e.g. Knutson et al. 2001, 2007; Erk et al 2002, but see Hare et al. 2008). NAcc activity patterns were similar across price and product primacy trials. Similarly, no differences were found in the behavioral liking ratings for purchased products between trial types ($p = .35$). Such findings allow us to rule out the possibility that price primacy simply reduces engagement or liking by diminishing the reward value of the subsequently viewed product.

Together these results are consistent with our proposed framework in which price primacy specifically influences the determination of a product's value, shifting the process from a question of "do I like it" to one of "is it worth it?" In the latter case, products deemed "not worth it" are merely insufficiently positive, as opposed to actively negative in value.

Such an account also makes the interesting behavioral prediction that price primacy could specifically enhance consideration of utilitarian or practical items, because their worth is easily accessible in terms of need or functionality. Furthermore, our data suggest that price primacy should not have an impact on hedonic or frivolous purchasing. These are products whose worth can be described in terms of how strongly rewarding they are found to be, and the results from the shopping task showed that early exposure to price did not diminish liking or the reward response for desired products.

These predictions were tested in second study; a between-subjects behavioral experiment comparing purchasing rates across category (hedonic/utilitarian) and primacy (product/price; $N = 122$). Participants were asked to indicate their intent to purchase either four hedonic or four utilitarian products, under price or product primacy conditions. As in the fMRI task, participant decisions were incentive compatible. There was a significant interaction of category by primacy ($F(1,118) = 4.04$; $p < .05$) such that price primacy significantly increased purchase rates for utilitarian products ($F(1,118) = 8.211$; $p < .01$) but did not change rates for hedonic products ($F < 1$). The results of this experiment confirm the behavioral predictions made by the neural data.

For more information, contact: ukarmarkar@hbs.edu

Stable Context-Dependent Preferences? The Origin of Market Price-Dependent Valuations

Nina Mazar, University of Toronto, Canada*

Botond Koszegi, UC Berkeley, USA

Dan Ariely, Duke University, USA

Today, the general, well-accepted assumption is that preferences are not stable and independent of the external environment that decisions makers face but instead influenced by contextual variables. One of the most important domains for the study of such influences has been pricing. For example, anchoring individuals on an arbitrary selling price derived from their social security number subsequently affected valuations (Ariely, Loewenstein, & Prelec, 2003). However, in a typical purchase situation, whenever consumers intend to buy a familiar product, they have accumulated various experiences with the product's available market prices or at least have some expectation about the distribution of this product's selling prices at various retailers. And it is less known to what extent the knowledge of the distribution of given market prices influences consumers' internal valuations. For example, in Richard Thaler's (1985) "beer on the

beach” example, which traditionally has been interpreted in terms of transaction utility, respondents provided their hypothetical willingness-to-pay for a bottle of cold beer delivered to them on the beach by a friend. Participants were told that the friend would get the beer, in one condition, from a local store and, in the other condition, from a fancy hotel. The results showed that participants’ willingness-to-pay was significantly higher in the latter condition. We view these results as consistent with the idea that expectations of the distribution of market prices for a product influences consumers’ valuations: Because respondents expected beer prices to be higher in the “hotel-market” than in the “local stores-market”, they responded by raising their reservation price.

In the market place a product is often offered for various different prices across retailers, in particular, with various steep discounts. And even if the price-range stays the same, the distribution of these prices (i.e. their frequency) varies across time and markets, and consumers often have some experience, knowledge, or expectation of this distribution. The existing reference price literature (e.g., Aradhna, Wagner, Yoon, & Adaval, 2006; Simonson & Drolet, 2004) has not demonstrated if and how varying distributions (i.e. frequencies) of the same market prices for a product would affect individuals’ internal valuations of that product, but predictions based on previously accumulated findings support the notion that the distribution should have an effect (Monroe, 2003). In particular, research on categorical price judgments based on Parducci’s (1965) rang-frequency theory suggests that individuals do seem to shift their purchase decisions in response to distributional attributes such as range, modality, or skewing (e.g., Alba, Mela, Shimp, Urbany, 1999; Janiszewski & Lichtenstein, 1999). While these studies focused on price judgments rather than on valuations (maximum willingness-to-pay) and studied the influence of the price distribution of competing products in the market rather than of the target product itself in the market, along similar lines, we hypothesized that even if the range of a product’s selling prices was the same, a left-skewed distribution would elicit lower reservation prices for a familiar product in comparison to a right-skewed distribution.

Our interest, however, goes beyond merely identifying another contextual factor. Instead we wanted to focus on investigating the origin of such context-dependency. That is, while the previously demonstrated anchoring effects with non-informative, irrelevant single prices (see e.g., Adaval & Wyer, 2010; Nunes & Boatwright, 2004 for incidental effects) are clearly mistakes in individuals’ expressions of preferences, it is less clear whether such market-dependent valuations are necessarily mistakes and to what extent they might be stable within the same markets. At least three possible causes for such a context-dependency come to mind: 1) rational reactions to information, 2) true changes in valuations (i.e. individuals have real, that is stable, context-dependent preferences), or 3) biased (i.e. erroneous) expressions of true context-*in*dependent valuations. If reservation prices depend on the prices buyers expect to face in the market, demand will in general depend on supply, with important implications for marketers’ pricing strategies and for pricing models. Therefore, understanding the source for this dependency is crucial to determine not only marketing strategy but also welfare and policy implications.

We address these questions with three studies. First, we present two experiments with a visual description of a product’s market price-distribution in which we found that participants’ willingness-to-pay in consequential purchasing tasks were dramatically lower when the price distribution was skewed to the left than when it was skewed to the right. More important, in these experiments we investigated possible underlying reasons for the price distribution-dependence of preferences. Our results rule out a rational reaction to information and favor the possibility of an error in the expression of one’s preferences rather than the existence of true differing preferences across markets or contexts. Next, Experiment 3 replicated the findings in a setting that more closely resembled a market situation: a multi-period market simulation in which participants merely experienced the distribution of selling prices in the market. Our findings suggest that despite having stable valuations of products, consumers are rarely willing to pay that valuation when encountering lower prices unless they are prompted to think carefully about the value that the product provides to them (Experiment 2) or when they are being “reminded” that the distribution of selling prices should not matter (Experiment 1). This means that

consumers might sometimes end up making sub-optimal purchase decisions and not purchase the product for a price at which they would still receive a positive net utility from it. We speculate that this systematic behavioral pattern (bias) arises from consumers being distracted by the wrong goal: instead of focusing on the utility that the product itself offers, they are shortsightedly focusing on optimizing the pleasure of getting a good deal.

Together, our results suggest that a market with its price distribution is an inherently powerful contextual variable that determines expressed preferences in purchasing decisions even for products for which consumers should have a relatively good idea of the consumption utility that it provides and in the absence of a clear, explicit anchor.

For more information, contact: nina.mazar@utoronto.ca

The Moderating Effect of Construal Level on Price Judgments

Marcus Cunha, University of Washington, USA

Julian Saint Clair, University of Washington, USA*

Jeffrey Shulman, University of Washington, USA

When judging multiple products, consumers' price perceptions are often influenced by the characteristics of the price distribution and price judgments are well accounted for by range-frequency theory (Parducci 1965). This theory posits that consumers focus on specific elements of the consideration set, such as the most and least expensive products (i.e., range) or the density of the distribution (i.e., frequency), and that judgments contrast away from the direction of change to these elements such that a price increase for the most expensive product makes the other products seem less expensive (Cunha and Shulman 2011; Niedrich, Sharma, and Wedell 2001). The present research demonstrates that the level of abstractness with which consumers construe product prices (i.e., construal level) moderates this standard contrast effect.

Construal level theory (CLT; for a review see Trope and Liberman 2010) contends that consumers construe stimuli on a continuum of abstractness ranging from low-level, concrete construal to high-level, abstract construal. CLT research shows that consumers processing at low construal focus on subordinate, specific features and process contrastively. In contrast, consumers processing at high construal focus on superordinate, global features and process inclusively. For example, when asked to group a multitude of items into categories, participants processing at low construal formed a large number of specified categories (e.g. snacks, sodas) while those processing at high construal formed fewer, broader categories (e.g. food, beverages; Liberman, Sagristano, and Trope 2002). Additionally, when asked to rate the similarity between social groups (e.g. men and women, self and others), participants processing at low construal perceived less similarity while participants processing at high construal perceived more similarity (Forster 2009; Forster, Liberman, and Kuschel 2008). These findings are said to result from differential attentional focus (specific vs. global features) and processing style (contrastive vs. inclusive).

The tendency for consumers processing at low construal to focus on specific features and process contrastively is consistent with the predictions of range-frequency theory wherein consumers use specific features of the distribution as standards of comparison. However, the tendency for consumers using high construal to focus on global features of the stimuli distribution and process inclusively is at odds with range-frequency theory. What feature of a consideration set might serve as a "global feature"? Prior research has proposed the mean of a consideration set as a potential referent relative to which consumers might make judgments (Monroe 2003). Considering that the mean of a set serves as a summary measure, which captures the typicality of the elements of the set, it is plausible to conceptualize it as a global feature of a consideration set. As such, it can be predicted that consumers' processing at low construal will show results

consistent with range-frequency theory in which price judgments of target products contrast away from shifts in specific elements of the context (e.g. the range). Alternatively, price judgments by consumers processing at high construal will instead assimilate toward shifts in global features (e.g. the mean).

We test this prediction in two experiments. In experiment 1 we activate low (high) construal by priming negative (positive) affect (see Gasper and Clore 2002; Labroo and Patrick 2009), while in experiment 2 we use a classification (inference) learning task (Markman and Ross 2003). After the construal manipulations, participants were randomly assigned to price-context conditions in which they saw the prices of a number of gourmet cheeses and rated them on expensiveness. A subset of these prices were target prices that remained constant across context conditions while the remaining prices were manipulated to shift the range, frequency, and mean of the set.

Across both experiments we obtain results consistent with our predictions. The construal manipulations worked as expected ($ps < .01$) and the interactions between construal and price-context were significant (E1: $p < .05$; E2: $p < .01$). Specifically, participants in low construal judged target prices as less expensive when the range and frequency were shifted upward but not when the mean was shifted upward; a contrast response. In comparison, participants in high construal judged targets as more expensive when the mean was shifted upward but not when the range or frequency were shifted upward; an assimilation response.

In sum, this research identifies construal level as an important factor that influences contextual price judgments. Whereas consumers using low-level, concrete construal attend to specific features of the context (e.g. the range or frequency) and their judgments contrast away from these features, consumers using high-level, abstract construal attend to global features of the context (e.g. the mean) and their judgments assimilate toward these features. This latter finding is at odds with extant research on contextual judgments, which supports range-frequency theory. For practice, the implication is that marketers may alter their perceived price position by activating high or low construal using a simple affective prime. For theory, the implication is that construal level may affect contextual judgments and information integration in general, extending beyond judgments of price alone.

For more information, contact: juliansc@u.washington.edu

8.2 Individual Papers: Over the Rainbow: Construal and its Levels

Room: Four Seasons Ballroom 2

Chair: Yael Zemack-Rugar, Virginia Tech, USA

Choosing for Here and Now vs. There and Later: The Moderating Role of Psychological Distance on Assortment Size Preferences

Joseph Goodman, Washington University in St. Louis, USA

Selin Malkoc, Washington University in St. Louis, USA*

Consumers choose which retailers to shop at and what restaurants to frequent in both proximal and distal situations. These decisions involve consumers choosing between various assortments, such as an ice cream shop with smaller versus larger assortments, or stores carrying smaller versus larger selections. Consumers tend to prefer retailers that offer a large selection of options compared to those with fewer choices (e.g., Broniarczyk, Hoyer, and McAlister 1998; Chernev 2006; Huffman and Kahn 1998); however, choosing from large assortments also brings with it negative consequences (the “paradox of choice” Schwartz 2004; Scheibehenne, Greifeneder, and Todd 2010; Chernev, Böckenholt, and Goodman 2010). Yet, research has not considered whether this preference for more choice would

change depending on the psychological (temporal or geographical) distance of the decision. For instance, imagine a consumer planning a vacation in the near future (this weekend) versus a distant future (months away), or to a near location versus a distal location. Would her preferences for assortment size change based on the psychological proximity of the decision? Would she plan to shop at different stores or visit a different ice cream shop? In this research, we address this issue by examining whether assortment size preferences are systematically influenced by psychological distance from the choice (Trope and Liberman 2003; 2010).

Construal level theory points to two contradicting predictions regarding the influence of psychological distance on the assortment size decision. On the one hand, making a decision in a distant time or location might cause the adoption of an abstract mindset, leading the choice task be construed at a higher level (e.g., choosing a place for dessert vs. choosing between two ice cream shops). When the choice is construed as choosing a place for dessert, ice creams in these shops appear more substitutable, and either the small or the large assortments would equally satisfy this abstract representation, thus decreasing the need and the preference for the larger assortment. We term this the *abstraction hypothesis*. On the other hand, a consumer choosing an ice cream shop for a distant location or time might increase her focus on attributes that are deemed desirable (Liberman and Trope 1998), and simultaneously decrease the valuation of feasibility concerns (i.e., difficulty of making an ultimate choice). In this case, decreasing psychological distance should highlight feasibility concerns, such as the difficulty of choosing from the large assortment, and decrease preferences for the large assortments. We term this the *feasibility/desirability hypothesis*.

Across six experiments we reconcile these contradicting predictions and show that assortment choice is systematically affected by psychological distance and that the direction of the relationship is based on the explicit consideration of desirability/feasibility tradeoff information. Manipulating psychological distance via physical proximity (all experimental manipulations were between subjects), we asked participants in Experiment 1A to choose between two restaurants (one with a large assortment, 14 options, and one with a small assortment, 7 options), opening either that day or next semester. Experiment 1B manipulated psychological distance geographically by asking participants to choose between two ice cream shops (one with 18 options, one with 6) while on vacation either 1 mile or 1000 miles away. Results from both experiments show support for the *abstraction hypothesis*: Participants were more likely to choose the small assortment when the decision was psychologically distant compared to proximal.

Experiments 2 and 3 provide evidence for our theory by directly testing our proposed process of perceived substitutability, while systematically ruling out alternative explanations (i.e., involvement and retailer inferences). Experiment 2 examines our effect with a service (vacations) while holding the retailer (the travel agent) constant. We found that participants again prefer a smaller assortment when psychological distance was greatest (vacation this month vs. next year), and using the recommend bootstrapping technique (Preacher and Hayes 2008) we found this effect was mediated by perceptions of substitutability. In experiment 3 we again found that participants were more likely to choose a store with a small assortment (of blenders) when the psychological distance was greatest, and this effect was mediated by perceptions of similarity, which drives substitutability.

Finally, experiments 4 and 5 directly examines whether the effect of psychological distance on assortment size preference reverses when desirability/feasibility tradeoff information is explicitly considered. In experiment 4 we manipulated the saliency of the desirability/feasibility tradeoff information by reminding half the participants of the time it would take to examine all the options in the large assortment (“evaluating each blender will take about 3-5 minutes”), while experiment 5 manipulated tradeoff salience by asking participants in the salient (control) condition to make a choice from a large (small) assortment before choosing which chocolate store to visit. Our results from both studies show that when tradeoff information is not salient, participants preferred a small assortment more when the decision was psychologically distal compared to proximal; however, when tradeoff information is salient, and

psychological proximity cues participants to focus on feasibility concerns, participants preferred a small assortment more when the decision was psychologically proximal compared to distal.

Our results have several important implications. No research to date has examined situations where shifts in weighing on desirability and feasibility (Liberman and Trope 1998) and shifts in the representations of the situation (Trope and Liberman 2003; 2010) predict opposing effects. We provide results suggesting that the salience of explicit feasibility/desirability tradeoff information is a key moderator to understanding the effects of psychological distance on choice. The results also demonstrate the effect of psychological distance (manipulated in terms of both temporal and spatial/geographical distance), on substitutability judgments and decision-making. Finally, our findings also suggest that the ubiquitous “lure of assortment” may not be as universal as previously thought. We demonstrate that the timing and location of the decision is an important moderator and that when consumers are psychologically distant, their preference for large assortments decreases due to an increase in perceived substitutability.

For more information, contact: goodman@wustl.edu

Matching the Words to the Features in Persuasive Advertising: A Construal-Matching Hypothesis

Karthikeya Easwar, Ohio State University, USA*

Lifeng Yang, University of Mississippi, USA

Recently, a number of journal articles have examined the effects of construal on consumer behavior. Construal level has been shown to influence voting, self-control, saving, social influence, conservation and perceptions of complementarity or promotion value (Cheema & Patrick, 2008; Ülkümen & Cheema, 2011). Our research finds evidence that matching the construal level of advertising copy to that of the focal product can improve product attitudes by facilitating processing fluency, a finding that has significant implications for attitude and advertising research.

Construal level theory (CLT), has found evidence that, as abstraction increases, psychological distance increases and as psychological distance increases processing of abstract events is facilitated (Liberman and Trope 1998). This research has shown that desirability is more abstract than feasibility, idealistic values (respect, honesty, etc.) are more abstract than pragmatic and functional concerns (uses, extrinsic benefits) and hedonic products (music, chocolate) are also more abstract than utilitarian products (glue stick, ball point pen). CLT has also discovered that psychological distance can be affected by temporal, geographical and social distance in such a way that objects that are farther away on these dimensions are construed more abstractly. In other words, a computer that comes out in a year, or was made in Europe, or is owned by an out-group member is construed at a higher level than one that is coming out next week, made in the US or owned by a close friend.

While social psychology has found differences in attitudes, perceptions, and behavior depending on the level of construal, psycholinguists have also studied the idea of abstract vs. concrete. Research on linguistic categories finds that words with the same semantic definitions can be grouped into different levels of abstractness. The Linguistic Category Model developed by Semin and Fiedler (1988) provides 5 categories of words that have different degrees of cognitive functions in interpersonal communications and vary in their level of abstraction. It is found that adjectives are generally governed by abstract, semantic relations rather than be governed by the contingencies of contextual factors; verbs, in contrast, are generally governed by concrete relations.

We apply these speech classifications to marketing messages in print ads and propose a construal-matching effect. We hypothesize that an effective match facilitates a fluency that results in increased persuasiveness of the matched

messages. Using verbs (concrete) to advertise utilitarian (concrete) products (e.g. glue stick), due to matching, will make the message more effective. In the same vein, using adjectives (abstract) to advertise hedonic (abstract) products (e.g. music) will create positivity.

Study 1 examines the matching hypothesis by examining two different products with either matched or unmatched messages. Study 2 examines the matching hypothesis by priming the same product to be either hedonic or utilitarian. Finally, in study 3, to provide more evidence of the construal-matching hypothesis, we alter the release date of the iced coffee to be distal or proximal, manipulating a different dimension of psychological distance and still see the positive effects of construal-matching.

A pretest revealed a glue stick to be primarily utilitarian and an mp3 to be primarily hedonic. Therefore, these were taken as the two focal products in study 1. Two versions of ads for each of the two products were developed for the experiment and pretested to be semantically equivalent. One version of the ads use concrete verb words, the other version of the ads use abstract adjective words. After reading the ads, subjects reported their brand attitude, message believability and desirability, cognitive involvement when reading the ad, and cognitive responses.

The results of study 1 support the construal-matching hypotheses. Ads framed in concrete words were perceived to be more believable and persuasive when they were used to describe the utilitarian product. In contrasts, ads framed with abstract words were perceived to be more convincing and more effective when used to describe the hedonic product.

The initial pretest also revealed that iced coffee was considered to be a hybrid product consisting of hedonic and utilitarian attributes. Therefore, this product was used in study 2. In study 2, subjects were primed to either view iced coffee as hedonic or utilitarian. Consistent with traditional methods of priming, subjects were given a word search in which they were either asked to find words that related to utility (function, aim, objective, function, etc.) or to hedonicity (love, enjoy, fun, pleasure, etc). They were then shown an ad promoting a new iced coffee drink at a university café. This ad either used verbs to promote the product and café or adjective (e.g. tastes great vs. tasty).

Results from this study also support our construal-matching hypothesis. Those who viewed ads that matched their primed mindset had more positive attitudes towards the iced coffee, the café, and the advertisement itself.

Finally, to test the generalizability of our matching hypothesis, in a third study, we change the dimension of psychological distance that influences construal of our focal product. In study 3, we use the same iced coffee, but alter the opening day of the café to be either this coming fall or one year from now. Again, even using a different manipulation, we see the same construal-matching. Over all three studies, we see that using adjectives (verbs) to advertise abstract (concrete) products is the most effective.

This research adds to the steam of research examining the positive effects of matching. The mood match hypothesis and encoding specificity argue that recall is facilitated by ensuring that recall occurs in the same context as learning (Tulving 1973). Work in frame matching (Cheema & Patrick, 2008) demonstrates that when message frames match an individual's mindset, consumers are more likely to act in accordance with their attitude. Attitude research has found that when a message frame matches individuals' self-schema, matching has a positive effect on attitudes (Grier & Deshpande 2001; Wheeler et al. 2005). Consistent with these positive matching effects, this research finds matching the construal level of advertisement language to product features creates positivity. Using adjectives (verbs) to advertise abstract (concrete) products leads to the most positive product attitudes.

For more information, contact: easwar.1@osu.edu

Temporal Distance and the Endowment Effect

Dongwoo Ko, University of Iowa, USA*

William M. Hedgcock, University of Iowa, USA

Catherine Cole, University of Iowa, USA

Research on the endowment effect has identified factors that enhance or mitigate the effect such as duration of ownership (Strahilevitz and Loewenstein, 1998), and information processing differences between sellers and buyers (Nayakankuppam and Misha, 2005). But these studies have primarily involved immediate transactions between sellers and buyers. An interesting question emerges about whether the endowment effect will be observed for temporally distant transactions. The main purpose of my research is to examine how the temporal distance of transactions influences customers' evaluations of products by comparing buyers' willingness to pay and sellers' willingness to accept in the present and in the future.

Theoretical framework

The mechanisms underlying the endowment effect and temporal construal level theory (Liberman & Trope, 1998) suggest different underlying processes for temporally different transactions. Prior studies have found buyers and sellers have different cognitive perspectives during transactions. Sellers focus on their products while buyers focus on their money. These different cognitive perspectives induce price gaps between sellers and buyers and increase loss aversion. However, if events are in the distant future, sellers' and buyers' cognitive perspectives may change. When sellers conduct transactions in the present, they think about the feasibility of the transaction. Sellers may describe actions and transactions in terms of how they will attach a value to the product. However, if the transaction is in the future, the primary purpose of the transaction will be weighted relatively more than the subordinate features of the action. For sellers, the main purpose of the transaction will be obtaining money, whereas for buyers the main purpose will be to acquire the product. Thus, aspects of the "why" identification will lead sellers and buyers to change their cognitive perspectives. The willingness to accept will decrease because the sellers' cognitive perspective will move from the product to money; in contrast, willingness to pay will increase because buyers will give more weight to the products when the transaction is expected in the distant. In other words, the salience differences such as product or money between sellers and buyers will mediate the price gap differences between immediate and future transaction.

H1. As temporal psychological distance increases, the price difference between sellers and buyers will decrease.

H1a. When a transaction is temporally distant, buyers will be willing to pay a higher price than when a transaction is temporally close.

H1b. When a transaction is temporally distant, sellers will be willing to accept a lower price than when a transaction is temporally close.

H2. Temporal distance will affect sellers and buyers' salience of product or cash.

H2a. When a transaction is temporally distant, cash will be more salient than the product to sellers. Whereas when a transaction is temporally

close, the product will be more salient than cash to sellers.

H2b. When a transaction is temporally distant, the product will be more salient than cash to buyers. Whereas when a transaction is temporally close, cash will be more salient than the product to buyers.

H3. The salience of product or cash will mediate the effect of temporal distance on price differences.

Study 1

The main objective of this experiment is to examine whether temporal distance affects people's willingness to pay and accept. In the experiment, subjects were divided into two groups—sellers and buyers—as well as into two different situations involving near and distant transactions, resulting in a 2 (buyers vs. sellers) x 2 (temporally near vs. temporally far) between subjects design. The participants were 112 undergraduate marketing students. The experiments were conducted via a paper and pencil survey. As subjects sat down, they found a pen which they used throughout the study. Participants were randomly assigned to the buyer or seller roles by a coin toss. Temporal distance was manipulated by giving two different transaction situations: today and a month from today. Respondents were asked what price they would pay or what price they would accept (depending on their role). The 2(role) X 2(time) between subject ANOVA on price revealed a significant main effect for role ($F(1, 108) = 13.155, <.000$) and a significant two way interaction effect between role and temporal distance ($F(1, 108) = 12.071, <.001$). The interaction was significant because the price gap between sellers and buyers in the present (seller - buyer : 1.63 - .90108) was greater than the same price gap in the future (seller - buyer: 1.37 - 1.354). As temporal distance increases, buyers' willingness to pay increased ($t = -3.001, <.004$) and sellers' willingness to accept decreased ($t = 1.872, <.067$), consistent with H1.

In order to examine the underlying process, respondents' thought listings were analyzed using the Standardized median rank difference (SMRD) between thoughts about cash and thoughts about product. SMRD is defined as $2(MRP - MRM)/n$ where MRP = median rank of product thought type in a participant's sequence, MRM = median rank of money thought type in a participant's sequence, and n = total number of thoughts in respondents' sequence (Johnson et al., 2006). Analysis yields the variable, "thought type", which approaches 1 if the pen is more salient to subjects than cash and approaches -1 if cash is more salient to subjects than pen.

A 2 (role) X 2 (time) between subjects ANOVA on thought type revealed two significant effects: main effect of role ($F(1, 108) = 4.073, <.046$) and the two way interaction between role and time the two way interaction between role and time ($F(1, 108) = 35.467, <.000$). This occurred because as distance increases, money becomes salient to sellers while the product becomes salient to buyers. Also in the temporally near condition, the product is more salient to sellers while money is more salient to buyers (.5131, -.5920). Whereas under the distant transaction condition, money is more salient to sellers, but product is more salient to buyers (-.2210, .3247). This is consistent with H2.

Also we tested whether SMRD mediates the effect of time on price. We used bootstrapping method and considered sellers and buyers separately. We found evidence that SMRD mediates the effect of time on price for both buyers and sellers.

We believe this is the first study that demonstrates the endowment effect changes depending on whether transactions are temporally near or distant. We show the cognitive focus of sellers and buyers changes as transaction distance changes. These results raise interesting questions about whether construal level influences customers' willingness to pay and

sellers' willingness to accept without temporal distance manipulation. We are currently running studies to see whether alternative construal level manipulations influence the endowment effect.

For more information, contact: dongwoo-ko@uiowa.edu

The Construal Level Effect on Persuasiveness of Embedded Premium Promotion

Yun Lee, University of Iowa, USA*

Nara Youn, Hongik University, Korea*

Recently, Embedded Premium Promotion (EPP), defined as purchase-contingent donations to a social cause added on to a product or service (e.g. Nabisco animal cookies with donations to the World Wildlife Fund, Hershey's chocolates with donations to UNICEF), is gaining increasing interest as a new form of marketing promotional tool which provides 'affect-based complementarity' by adding selfless utility of giving to others (Henderson and Arora 2007, 2010, Strahilevitz and Myers 1998). Previous literature has shown that by eliciting "Warm Glow", EPP is more effective than an equivalent price discount ("Cold Hard Cash") in enhancing perception of the brand, purchase intention, and firm reputation while price discount may damage quality perception and brand equity (Arora and Henderson 2007, Winterich and Barone 2011).

In this study, we document that the effectiveness of EPP moderated by customers' abstract vs. concrete construal level (Trope and Liberman 2003, 2010) varies by product type. People with high level construal perceive more similarity across different social groups by construing objects, events, and actions abstractly which blurs social distinctions and by perceiving more homogeneity, they empathize more with and help others (Levi, Freitas, and Salovey 2002). We propose that prosocial behavior previously found among abstract thinkers be shown only for EPP applied to guilt-inducing hedonic product. Charity incentives are shown to be more effective in promoting hedonic than utilitarian products (Strahilevitz 1999, Strahilevitz and Myers 1998) because after customers relish the hedonic pleasure, they need to come up with reasons to mitigate the guilt (Okada 2005) and donation opportunity fulfill the need. In light of this, we theorize that the attitude toward EPP products is more favorable and the effectiveness of EPP enhances when consumers' construal level is abstract (vs. concrete) in case EPP is linked with hedonic product, whereas EPP on utilitarian products yields no difference by construal level. This interaction effect of construal level and product type explains different EPP effect on guilt reduction for hedonic and utilitarian product types. Through 3 experiments, we find that abstract thinkers perceive the EP promotion more credible, needed, important, relevant, and means more to them (Study 1, 2, and 3), evaluate the product more favorably when EPP is linked with hedonic product, and thus the guilt of consuming hedonic product was alleviated more for them than concrete thinkers.

In study 1, we examined whether consumer's high vs. low construal level affected evaluation of EPP. 77 undergraduates were asked to review an EPP advertisement. We primed construal level by pointing the donation beneficiary to be either superordinate category ('Palestinian children' in need of water and sanitation facilities) to induce a high-level mindset or subordinate exemplar (a Palestinian child fictitiously named 'Ashef El Zatman' in need of water and sanitation facilities) to induce a low level mindset (Fujita et al. 2008). A oneway between-subjects ANOVA revealed a significant effect of construal level ($M_{high}=3.77$, $M_{low}=3.15$, $F(1, 75)=5.35$, $p < .05$) on EPP evaluation (1 = not needed, not important, irrelevant, means nothing to me ~ 7 = needed, important, relevant, means a lot to me; $\alpha = 0.89$). High construal consumers' evaluation for EPP was much more favorable than low construal consumers'.

Study 2 examines the moderating role of product type on the effect of construal level on the attitude for the product with EPP. 179 undergraduates were randomly primed for abstract versus concrete construal by being exposed to an EPP advertisement about raising fund for sufferers struggling with houses in Haiti due to an earthquake. In the abstract construal condition, the “benefit” of the charity Champaign was emphasized and the participants were asked to list the reasons “why” we should help reconstructing houses in Haiti. The promotion in the concrete construal condition stressed the “process” aspects of the Champaign and the participants itemized “how” we can help house reconstruction in Haiti. Product type was manipulated by relating the EPP with a vice (delicious chocolate) versus virtue (healthy raisin and organic nut mix) product (Mishra and Mishra 2011). The participants in control condition evaluated one of the two product types without EPP. A 3(construal level: high versus low, no EPP) \times 2(product type: vice versus virtue) between-subjects ANOVA yielded a significant construal level \times product type interaction ($F(2, 173)=5.34, p < .01$) on attitude toward the product. As hypothesized, follow-up contrasts showed a significant construal level effect for vice product ($F(2, 82) = 10.17, p < .001, M_{\text{vice, high}} = 4.96$ vs. $M_{\text{vice, low}} = 4.14, M_{\text{vice, control}} = 3.77$), whereas attitude was not different by construal level for virtue product ($F(2, 91) = .14, p > .1, M_{\text{virtue, high}} = 4.01$ vs. $M_{\text{virtue, low}} = 3.99, M_{\text{virtue, control}} = 3.92$). The abstract thinkers revealed more favorable attitude toward the vice product with EPP than do concrete thinkers ($p < .05$).

In study 3, we document the guilt mitigation effect due to the purchase of product with EPP. 176 undergraduates were randomly assigned to two conditions. The participants in the hedonic condition were asked to choose between ‘purchase a twenty dollar box of chocolate and receive one dollar in cash’ and ‘purchase a twenty dollar box of chocolate and one dollar is donated to UNICEF in your name,’ whereas ones in the utilitarian condition were offered to choose between ‘purchase a twenty dollar textbook and receive one dollar in cash’ and ‘purchase a twenty dollar textbook and one dollar is donated to UNICEF in your name’ (Strahilevitz and Myers 1998). The chronic construal level was measured using BIF scale (Vallacher and Wegner 1989) and the participants indicated how guilty they would feel about their choice. A logistic regression on choice revealed a significant effect of construal level \times product type interaction ($\beta = .14, p < .05$) and planned contrasts showed a significant effect of construal level for hedonic product ($\beta = .14, p < .05$), but not for utilitarian product. A regression result yielded a significant construal \times product type interaction effect on guilt ($\beta = -.10, p < .05$) and subsequent contrasts revealed a significant construal effect on guilt for hedonic product ($\beta = -.07, p = .05$) and no significant effect for the utilitarian product. A series of regression and the Sobel test confirmed that choice of donation mediates the influence of construal level on guilt for hedonic product. High level of construal leads to more preference for donation incentive than cash rebate and the participants who chose donation felt less guilt.

For more information, contact: yun-lee@uiowa.edu

8.3 Symposium: Leaving Money on the Table: Situational Factors that Impair Financial Judgment and Decision Making

Room: Desert Willow

Chair: Cynthia Cryder, Washington University in St. Louis, USA
Scott Rick, University of Michigan, USA

Some Consequences of Having Too Little

Anuj Shah, Princeton University, USA*
Eldar Shafir, Princeton University, USA
Sendhil Mullainathan, Harvard Business School, USA

In circumstances of extreme want, human behavior differs dramatically. As plain as this truth may be, it has proven difficult to understand more deeply. Contexts such as poverty seem to come with their own ecosystems, leading to behaviors that are often over-determined and hard to accommodate into simple theories. Often, attempts to understand poverty have focused on its correlates, such as personality characteristics (Lewis 1968), demographic or geographic factors (Allard 2004; Spilerman and Elesh 1971), and differential access to financial services (Beck, Demirgüç-Kunt, and Levine 2007), health (Guo and Harris 2000; Johnson and Schoeni in press), and education (Bernheim, Garrett, and Maki 2001). This approach suggests that those who have little are worlds apart from those who have plenty. Moreover, it implies that those who have little of one resource are a great deal different from those who have little of another; that the condition of want depends on the form of want.

Instead, we propose that the crux of poverty is lost in the study of its correlates. Here, we focus on what it means to have less of a resource. We examine the psychology and consequences of scarcity when it is distilled and isolated from specific contexts. This approach allows us to test the direct consequences of scarcity and it allows us to draw links between different forms of scarcity. Across a series of experiments, we examine how various forms of scarcity affect the way people borrow and save resources. We show how scarcity itself leads to cycles of debt across several resources and we examine the mechanisms underlying scarcity's influence.

In these experiments, participants played games with several rounds, where performance was incentivized with monetary rewards. Participants were given small or large budgets with which to play these games. For example, on some tasks participants were given budgets of time to play a trivia game. On other tasks, participants were given budgets of chances/guesses on a memory test. By manipulating the size of the budgets that participants had, we could essentially make participants "poor" or "rich" within the context of these tasks. By evaluating how many rewards participants accumulated, we could assess the effectiveness of how people managed their resources. We tested how this scarcity manipulation interacted with several other environmental factors, such as borrowing conditions, budget consistency, and the ability to accumulate debt.

In Experiment 1, participants were either prevented from borrowing resources from future rounds, were allowed to borrow at no interest, or were allowed to borrow with interest. Participants performed relatively well when they were unable to borrow, regardless of whether they were resource poor or rich. However, when the option to borrow was available, poor participants often over-borrowed. As a result, the flexibility to borrow undermined performance for poor participants. Yet rich participants continued to do well under such conditions.

In Experiment 2, some participants were given consistent budgets while others were given inconsistent budgets. Inconsistent budgets offered occasional large windfalls. Poor participants typically over-consumed such windfalls, failing to save for future rounds. As a result, poor participants performed worse when budgets were inconsistent, but rich participants performed well across all conditions.

Experiment 3 was designed to allow participants to go into debt if they borrowed too much. Once again, poor participants borrowed at significantly higher rates than did rich participants, and they saw their "paychecks" shrink drastically over the course of the game as debt accumulated.

We propose that scarcity leads to over-borrowing and under-saving because of attentional shifts that occur when resources are in short supply. In Experiments 4 and 5, we tested how people naturally shift their attention to focus on areas of scarcity while neglecting areas of perceived abundance. We show that while these attentional shifts are detrimental in the long-run, there are short-run benefits such as more efficient and more careful use of resources within certain contexts.

As a whole, these experiments offer a fundamentally different approach for studying the behavioral and psychological consequences of scarcity. Previous work on scarcity and poverty has focused on various factors that are associated with or correlated with having few resources. Such research then examines how those correlates drive behavior. By distilling scarcity from these correlates, this research offers a glimpse into the direct consequences of having too little.

In particular, these experiments speak to the dynamics of scarcity that lead people to over-borrow, under-save, and accumulate debt. Moreover, these results show how different forms of scarcity have similar effects. That is, a busy person who is short on time may share some of the psychology of a person who is short on money and facing poverty. We close by discussing implications for understanding scarcity in general and poverty in particular.

For more information, contact: akshah@princeton.edu

Winning the Battle but Losing the War: The Psychology of Debt Management

Moty Amar, ONO Academic College, Israel

Dan Ariely, Duke University, USA

Shahar Ayal, Interdisciplinary Center Herzliya, Israel

Cynthia Cryder, Washington University in St. Louis, USA

Scott Rick, University of Michigan, USA*

According to the Federal Reserve, the total outstanding credit card debt carried by Americans reached an all-time high of \$975 billion in 2008, a figure that will surely balloon as more people reach for the plastic just to make ends meet. Additionally, consumers who use credit already hold over five credit cards on average (Experian 2009). As cautious lenders cut credit limits and force indebted consumers to find new sources of credit, the number of different debts consumers carry is likely to further increase.

When consumers carry multiple debts, how do they decide which debt to repay first? From a rational perspective, debt management is simple: To minimize the total amount of debt across loans, people should first pay the minimum payment for each debt, and then use all available cash to pay down the loan with the highest interest rate. Once this loan has been paid off, people should move to the loan with the next highest interest rate, and so on.

From a psychological perspective, however, there is reason to suspect that consumers might stray from normative principles when managing debt. Consumers tend to greatly underestimate how interest compounds over time (e.g., Eisenstein and Hoch 2005). Because attributes that are difficult to evaluate tend to receive less weight in decision-making (Hsee 1996), it seems unlikely that interest rates would dictate which debt gets repaid most quickly. Instead, much prior work on the psychology of goals suggests that indebted consumers are likely to focus on paying off individual debts, regardless of their interest rates. When achieving a superordinate goal is perceived as difficult, people often adopt subgoals that break the overall task into smaller, more manageable parts (e.g., Newell and Simon 1972). Becoming entirely debt-free is a difficult superordinate goal that may prompt indebted consumers to adopt subgoals focused on paying off individual loans.

Indebted consumers may focus on paying off small loans in particular. The Goal-Gradient hypothesis suggests that the motivation to achieve a goal increases with proximity to the goal (e.g., Kivetz, Urminsky, and Zheng 2006). In the context of debt management, consumers may be more motivated to achieve goals that are proximal (e.g., paying off debts with small balances) than goals that are distal (e.g., becoming completely debt-free).

Moreover, Prospect Theory suggests that multiple losses (debts) are more distressing than a single loss of equivalent total value. Because small losses impose a disproportionately heavy psychological burden, eliminating a small debt may offer greater relief than making an equivalent reduction to a larger debt. Building on these multiple lines of work, we hypothesize that consumers saddled with multiple debts will primarily be motivated to reduce their total number of outstanding loans, rather than their total debt across loans, a phenomenon we refer to as *debt account aversion*.

We initially examined whether consumers were debt account averse in a survey of *New York Times* readers. Participants indicated whether they currently carried credit card debt and, if so, how many of their credit cards carried debt. Participants who carried debt on multiple cards also indicated the amount of each debt and how much they planned to pay on each debt in the next billing cycle. For each multiple-debt holder, we computed the proportion of total debt accounted for by the smallest debt (D) and the proportion of total repayments to be allocated to the smallest debt (R). We found that R was significantly greater than D on average, indicating that multiple-debt holders are devoting disproportionate effort toward closing their smallest debt, presumably due to debt account aversion.

These initial results suggest that debt account aversion may be a common approach to managing multiple debts. However, many open questions remain regarding the generality of the phenomenon and its boundary conditions. For example, does this non-optimal behavior persist when there are immediate monetary incentives to behave rationally? How can we help consumers make more rational debt repayment decisions? To address these questions, we developed an incentive-compatible Debt Management Game for the laboratory.

In the game, participants were initially saddled with six debts that varied in their size and annual interest rate. The game lasted 25 “years” (rounds), and participants received a “salary” each year, which they could use to pay down one or more debts. After participants made their annual debt repayment decisions, the computer program presented the updated balance of each debt and a graph displaying the past and current standing of each debt. The smaller debts tended to have smaller interest rates, meaning a perfectly rational player (focused on paying off the highest interest debts as soon as possible) would conclude the game with significantly less debt than a “pure closer” (focused on paying off the smallest debts as soon as possible). Participants were paid real money based on how much total debt they had at the end of the game.

Experiment 1 revealed that players were significantly more likely to behave like pure closers than perfectly rational players, consistent with our *New York Times* survey. Experiments 2-4 examined whether preventing people from achieving their natural subgoals (closing small debts) refocused their attention on the superordinate goal of reducing total debt as soon as possible (cf. Amir and Ariely 2008). Indeed, we found that forcing participants to maintain a small positive balance on each debt (i.e., debts were uncloseable; Experiment 2), giving participants a salary smaller than the smallest debt (Experiment 3), and consolidating several small debts into one larger debt (Experiment 4), significantly increased the rationality of their repayment behavior. Additionally, Experiment 5 revealed that explicitly focusing participants’ attention on the actual dollar amount of interest each debt has accumulated thus far in the game also increased the rationality of their repayment behavior.

Taken together, the results suggest that the natural tendency to partition complicated tasks into more manageable subgoals can have costly implications for consumer financial decision making. However, interventions that disrupt indebted consumers’ inclination to pursue subgoals can help them achieve their overarching goal of becoming debt-free.

For more information, contact: srick@umich.edu

Value Tradeoffs and the Annuity Puzzle

Suzanne Shu, UCLA, USA*

Robert Zeithammer, UCLA, USA

John Payne, Duke University, USA

Over the next decades, nearly 80 million baby boomers will have to decide how to decumulate their retirement assets. One of the most important financial questions these individuals face in deciding how to generate income from their assets is what percentage, if any, should be allocated to the purchase of some form of a life annuity. Contingent upon a fixed upfront payment, a life annuity guarantees a specified level of income as long as one lives, thus eliminating the possibility of outliving one's income. Life annuities have been described as longevity insurance, guaranteed lifetime income, or a "safety net" of income for later in life. In spite of strong economic arguments for at least partial annuitization, there is only mixed evidence for the voluntary purchase of single premium life annuities by consumers - a finding termed the "annuity puzzle." To gain insight into the annuity puzzle, this project seeks to understand the psychological processes underlying annuity purchase decisions and especially the tradeoffs consumers make between annuity attributes.

We ran two studies of separate groups of adults (n=405 and n=402) aged 45-65 recruited from a nationwide internet panel (Qualtrics). Each study produced a unique dataset in which each person makes 23 hypothetical annuity decisions. The multiple responses per individual allow us to estimate each individual's indirect utility of an annuity contract as a function of the contract's attributes. Given individual-level estimates, we then simulate and aggregate individual choices from a set of annuities. Attributes were chosen based on current market offerings, with special emphasis on attributes that have been theorized to partially explain the annuity puzzle. The attributes tested in the first choice set included monthly (and annual) income, start date, annual income increases, and period certain guarantees. The second choice set included income, insurance company financial strength ratings, annual income increases, and period certain guarantees. For all choice tasks, participants are asked, "If you were 65 and considering putting \$100,000 of your retirement savings into an annuity, which of the following would you choose?" They then saw three annuity options and a fourth option that read, "None: If these were my only options, I would defer my choice and continue to self-manage my retirement assets." Attribute levels, especially income, were chosen to be in line with actual market offerings at the time of the survey. The choice tasks were followed by several demographic questions including gender, race, marital status, household income, and retirement assets. To assess financial literacy, we also included five numeracy questions and three Cognitive Reflection Test questions.

Overall, we find a strong dislike of annuities in the full sample, with older respondents, males, and white or Asian respondents even more likely to dislike annuities. Among respondents who chose at least one annuity, we find that some attributes are more strongly valued than others. As might be expected, higher income levels are significantly positively valued. Earlier start dates are also strongly preferred, with an immediate start at age 65 receiving a marginal utility higher than any other attribute and a deferred start at age 70 also preferred over the baseline age 75 deferral. The nonlinearity of these marginal utilities suggests myopia among consumers, consistent with temporal discounting. Interestingly, annual increases in payments are not generally valued beyond the lowest increase of 3% per year, which has a small estimate relative to other attributes; none of the marginal effects for larger annual increases are significant. This indicates that individuals are less sensitive to future increases in income than normative theory would suggest. Marginal effects for period certain guarantees are significant but smaller than effects for income or start date.

Demographic characteristics of the respondents also affect attribute valuation in interesting ways. For example, older respondents are even more myopic, placing a larger utility on immediate start. The strongest demographic effects come from the numeracy measure. More numerate respondents generally like annuities less than the average respondent but respond more positively than average to increased monthly incomes and earlier start dates. In contrast, the least numerate respondents generally like annuities, but also have a relatively flat response to changes in income. This could indicate that more numerate individuals are cognitively assessing the tradeoffs in value from the attributes, while less numerate individuals are responding to the offer based on a more general affective reaction to the idea of annuities. This distinction between cognitive and affective responses to annuity attributes is important and one we intend to investigate further through the collection of eye-tracking data.

In summary, results from two conjoint studies illustrate how consumers from the target consumer group for annuity products value the different attributes available in the annuities market. Our results allow us to compare how the market prices these attributes against how consumers appear to value them, to see whether market pricing is efficient based on consumer demand (in contrast to being efficient based on the actuarial value of each attribute). We also explore issues of heterogeneity – in other words, how do different demographic characteristics such as age, gender, race, financial literacy, and household income affect the weights attached to the different annuity attributes under consideration. Our findings include 1) overvaluation of immediate payouts, consistent with temporal discounting, 2) lack of sensitivity to guaranteed annual income increases, and 3) responsiveness to income changes dependent on numeracy, all of which provide insight into the consumer psychology that underlies the annuity puzzle.

For more information, contact: suzanne.shu@anderson.ucla.edu

How Do People Represent Money? The Case of the Influence of Irrelevant Options on the Perceived Value of Money

Stephen Spiller, UCLA, USA*

Dan Ariely, Duke University, USA

Money is a remarkable technology fulfilling three primary functions: it is a medium of exchange, a unit of account, and a store of value (Jevons 1875). Together, these benefits make money a critical technology for economic advancement. However, because money is associated with so many different goods, it may not be represented in a way that makes normative valuation possible (Weber and Johnson 2006).

How do consumers represent money? People presumably represent money as they represent other objects, using categories. People use categories to simplify and make sense of the world (Mervis and Rosch 1981; Rosch 1973, 1975, 1976). Categories allow individuals to observe a small number of instances and abstract information without needing to store all information about each instance. Indeed, mental accounts are types of categories (Heath and Soll 1996; Henderson and Peterson 1992; Thaler 1999).

As a result, people will value money according to its category properties. People can extract meaningful statistical information from the average member of a set better than from its individual members (Ariely 2001) and when extending such information to new category exemplars, extensions are based on the average member of the category (Osherson et al. 1990; Rein, Goldwater, and Markman 2010; Rips 1975). Although economic models require that money's value is determined by its marginal use, in three studies we test whether people value money according to the average of the set of possible uses instead. In particular, if people represent money as a category of possible uses,

irrelevant uses that are added to the set or made more accessible within the set, will affect the representation, and therefore the value, of money.

In Study 1, we assessed willingness to pay (WTP) for a medium of exchange usable on two products and WTP for each product. A moment later, participants reported which product they would use the medium to buy. We find that WTP for the medium is a function of both products, though the unpurchased product is normatively irrelevant. Thus, the entire set of products influenced the value of the money, not just the marginal purchase.

In Study 2, we examined how the perceived value of a gift card (a specific form of money) is affected by the set of products sold by the retailer, not just by the marginal product bought using the gift card. First, we assessed WTP for five gift cards. Next, we assessed WTP for the products they would be used to buy (as determined by each participant). Finally, we assessed how much each participant liked the set of products sold by each retailer. We find that controlling for WTP for what the gift card would be used to buy, liking for the set of products sold by the retailer is an important determinant of gift card WTP. In other words, money's value is driven by the set of products it could be used to buy, not just what it will be used to buy.

In Study 3, we held the set of products constant and merely manipulated the accessibility in memory of two different subcategories (books, music) of possible purchases of a gift card (Barnes & Noble, a bookstore). Increasing the accessibility of a less preferred, inaccessible subcategory (music, for participants who would prefer to buy books) led to a devaluation of the gift card relative to control. Reminding people of less attractive purchases they could make led them to value the card less, although it did not affect the actual set.

We propose that people represent money as a set of its possible uses. It is valued as a function of its set of uses, not just its marginal use. Merely making less attractive purchases more accessible can decrease the perceived value of money. Even holding constant the set of possible purchases, the set of purchases under consideration affects how much consumers value money. Reducing the fungibility of money may perversely increase its perceived value by increasing liking for the category on average. This is akin to the dilution effect in information integration (Nisbett, Zukier, and Lemley 1981) and is related to, but distinct from, derived decisions (Sood, Rottenstreich, and Brenner 2004), negative consequences of irrelevant product features (Simonson, Carmon, and O'Curry 1994), ironic effects of weak evidence (Fernbach, Darlow, and Sloman 2011), and medium maximization (Hsee et al. 2003).

For more information, contact: stephen.spiller@anderson.ucla.edu

8.4 Individual Papers: I'd Be Surprisingly Good for You: Recommendations

Room: Palo Verde

Chair: Joseph Lajos, HEC Paris, France

The Connectedness Heuristic: Inferring the Consensus on an Opinion from the Strength of Person-Opinion Associations

Dilney Goncalves, IE Business School, Spain*

Amitava Chattopadhyay, INSEAD, Singapore

People care about the opinion of others. In particular, the opinion of the majority is often regarded as representing the truth (e.g., Asch, 1951; Festinger, 1954). When people encounter an opinion, they may place the opinion on a continuum from idiosyncratic – reflecting only the preferences and beliefs of a single individual – to a consensus –

reflecting the preferences and beliefs of a larger population. If one has information about the opinion of all members of a population, then it is easy to judge the degree of agreement on a population. However, more often than not, people do not have access to everyone else's opinions. For example, a person reading an online blog is exposed to the blogger's opinion and maybe the opinion of a group of other readers through their comments. However, it is not clear what the level of agreement on the opinion among a more general population.

Weaver et al. (2007) have shown that people might use metacognitive experiences as information when judging the popularity of an opinion. They showed that more familiar opinions were considered more widespread than less-familiar opinions, even when familiarity was increased by incidental factors – like the number of times the same person expressed an opinion.

We propose that people may employ yet another heuristic to evaluate the level of support of an opinion, which we call the *Connectedness Heuristic*. We assume that people have experience with a variety of opinions, ranging from very idiosyncratic to very general ones. We further assume that opinions and people are linked in memory in a spreading activation network (Anderson, 1983). Thus, people have learned from experience that when an idiosyncratic opinion is activated in memory, activation spreads to the person linked to the opinion and it feels easy to associate person and opinion. Conversely, when a general opinion is activated, because it is connected to many more people, no particular person is easily associated with the opinion. As a result, it feels difficult to associate an opinion to any particular person when the opinion is widespread. We propose that people make the inverse inference: if it feels easy to associate a person to an opinion, then the opinion is probably idiosyncratic. Conversely, if it is difficult to associate a person to an opinion, then people judge the opinion to be more general. Although this is usually true, factors unrelated to the generality of an opinion can make it easier or more difficult to think of a person. One such factor is the presence/absence of identification of the opinion's author which is a commonly found factor in online opinions.

In study 1, we asked participants recruited online (N=251) to read and evaluate a consumer's opinion about a restaurant. After reading the opinion – which was negative –, participants were asked to estimate the percentage of the restaurant's customers who were dissatisfied. About half the participants saw an anonymous opinion. The other participants saw a signed opinion, which was exactly the same as the anonymous with the addition of a customer's name in the last line of text. In all studies, two names were used. Since there were no differences between the two name conditions and they were aggregated in all studies. The levels of perceived opinion generality supported our hypothesis: participants reading an anonymous complaint estimated that 53% of the restaurant's customers were dissatisfied while those reading a signed complaint estimated that 43% of customers were dissatisfied ($p < .05$).

To further test our process explanation and to examine whether knowledge about the population would eliminate it, we ran a second study. In this study, participants (N=338) read a restaurant review. Prior to reading it, though, participants were informed of the restaurant's average rating (high or low). The reviews were either positive or negative. Finally, reviews were either anonymous or signed – all factors manipulated between-subjects. After reading the review, participants were asked to estimate what percentage of consumers were as satisfied (dissatisfied) as the reviewer and to explain how they reached that estimate. A significant average rating x review valence showed that participants used the mean information and estimated greater agreement when the review was in line with the average ($p < .001$). More importantly to our hypothesis, a significant main effect of anonymity showed that its effect still persisted even when people had knowledge of the restaurant's average evaluation. Participants were more likely to make attributions to the reviewer when the review was signed (23.5%) than when the review was anonymous (11.5%; $\chi^2 = 8.26$; $p < .05$). Finally, a mediation test showed that attributions to the reviewer mediated the effect of anonymity on estimates of opinion generality.

In the third study, we examine the effect of the Connectedness Heuristic on choice. Participants (N=183) recruited online were randomly assigned to an anonymous- or signed-review condition. Participants read a scenario in which they had to buy a birthday present in a hurry. They were shown a gift-basket and a positive description of it. This was intended to generate a positive first impression of the gift-basket. Then, participants read a negative review which was either signed or anonymous. Participants decided whether or not they would buy the gift-basket and estimated the percentage of people who were dissatisfied with the gift-basket. After reading the negative review, participants were more likely to buy the gift-basket in the signed condition (18.2%) than in the anonymous condition (4.7%). This effect was mediated by estimates of opinion generality.

Our results provide evidence that anonymous opinions are considered more general than signed opinions. This is because it is easier to associate an opinion to a particular person when the opinion is signed than when it is anonymous. As a result, people are also more likely to comply with anonymous reviews. Besides demonstrating a novel judgment heuristic this research contributes to and extends the literature on social influence and metacognitive experiences (e.g.: Schwarz, 2004; Weaver et al., 2007) and has implications for consumer behavior and persuasion online.

For more information, contact: dilney.goncalves@ie.edu

A Question of Taste? The Difference in Perceived Helpfulness of Online Reviews for Utilitarian versus Hedonic Products

Simon Quaschnig, University College Ghent - Ghent University, Belgium*

Mario Pandelaere, Ghent University, Belgium

Iris Vermeir, University College Ghent - Ghent University, Belgium

Over the last decade online reviews have become an indispensable decision tool in the online purchase environment (Chevalier and Mayzlin 2006) and, hence, many online businesses use them in their marketing strategies (Dellaroccas 2003). However, to have an influence on consumers' purchase decisions, a review presumably needs to be viewed as helpful (Zhu and Zhang 2010). Previous research has provided evidence that product characteristics can affect how consumers process a Word-of-Mouth message (e.g. review) (Sundaram and Webster 1999). The current paper focuses on the hedonic/utilitarian character of a product as influencing factor on the perceived helpfulness of a review.

Research on the difference between utilitarian and hedonic products illustrates that online Word-of-Mouth is perceived as less helpful for hedonic products than for utilitarian products (Cheema and Papatla 2010; Sen and Lerman 2007). It has been argued that this difference in perceived helpfulness can be explained by the consumers' attributions regarding the reviewers' motivation (Sen and Lerman 2007). In contrast, this paper proposes that the difference in perceived helpfulness between the two types of products can be attributed to consumers' inferences about the product quality itself.

Our prediction is based on theory related to the opinion versus taste distinction (for a review Spears, Ellemers and Doosje 2009). While opinions are views that can at least in principle be evaluated at some level for their correctness, taste is essentially an arbitrary preference, whose evaluation is in the eye of the beholder. Consequently, opinions can be related to a "correct position" and be validated by others' opinions. This may not be possible for taste, which is different among groups or people (Spears et al. 2009).

The current paper contributes to the existing literature in several respects. First, we demonstrate how consumers consider the quality of utilitarian goods to be a matter of opinion, while the quality of hedonic goods is seen as a

question of taste. Second, we show how online reviews are able to help validate opinions, while not being able to validate personal taste. Third, the role of the opinion-taste distinction in mediating the effect of product type on review helpfulness is illustrated. We tested these expectations with four studies, with both online review and experimental data. In these studies we used one product category only, to avoid biases caused by category differences. Books were chosen, since they could be both hedonic (fiction) and utilitarian (non-fiction). A pretest confirmed our assumptions regarding the hedonic/utilitarian character of fiction and non-fiction books.

In study 1 we tested whether consumers find online reviews for utilitarian goods more helpful than reviews for hedonic goods. Using a within-subject design, participants were given a short description of two fiction and two non-fiction books and were then asked to evaluate the helpfulness of five reviews for each book. The valence of the reviews and the perceived attractiveness of the books were recorded as control variables (with no significant effects). The results revealed that online reviews for utilitarian goods are perceived as more helpful than online reviews for hedonic goods.

We conducted a second study to investigate if the effect from the first study will endure in a real-life setting. Review data for 1,200 reviews were extracted for both fiction and non-fiction books from different sales ranks. In addition to the product type, we collected information about the sales rank of the product and the valence of the review. The results resemble those of the previous study, since reviews for non-fiction (versus fiction) books were perceived as more helpful. This effect, however, was moderated by the position on the sales rank. The helpfulness of reviews for utilitarian books was as low as for hedonic books in the case of top bestsellers. A high position on the bestseller list often correlates with the overall popularity of products. Being popular in itself signals a higher quality, making online reviews superfluous (Zhu and Zhang 2010).

Study 3 tested if consumers consider the quality of hedonic products as a question of taste and the quality of utilitarian products as a matter of opinion. In a within-subject design, participants had to evaluate four fiction and four non-fiction books on a 'taste versus opinion' - scale we developed using existing literature. Both a reliability and an exploratory factor analysis delivered satisfying values for the 3-item scale. Fiction books scored significantly higher on our scale than non-fiction, indicating that they were more dependent on taste.

In the fourth study we assessed if the effect of product type on the perceived helpfulness of online reviews is mediated by the consumers' attributions with regard to the opinion-taste distinction. We tested this hypothesis with a between-subjects design, involving both a hedonic (fiction books) and a utilitarian (non-fiction books) condition. After receiving a general description of the book, participants were asked to evaluate it on the taste-versus-opinion scale. Replicating the findings of study 3, the quality of the fiction book was perceived to be more dependent on personal taste than the quality of the non-fiction book. Subsequently, participants were given a negative online review and had to evaluate its helpfulness. The review for the non-fiction book was perceived as more helpful than the review for the fiction book, resembling the findings of the first two studies. Finally, the results indicate a mediation effect of the opinion-taste distinction for the difference in perceived helpfulness.

The current research provides insight into the difference in perceived helpfulness for utilitarian and hedonic products. Reviews for hedonic goods are perceived as less helpful than for utilitarian goods, because the quality of hedonic goods is more dependent on personal taste. Hence, we can confirm that the difference in helpfulness can be attributed to the product type. This paper demonstrates that reviews may not be equally effective for all types of products, even within the same category. Since online reviews are expected to influence product sales only when the review information is used by the consumers, these results may have important managerial implications for companies that use online reviews as a marketing tool.

For more information, contact: simon.quaschning@hogent.be

Do Others Influence What We Say? The Impact of Interpersonal Closeness on Word-of-Mouth Valence

Matteo De Angelis, University of Wisconsin-Milwaukee, USA*

David Dubois, HEC Paris, France

Andrea Bonezzi, Northwestern University, USA

A central question to word-of-mouth (WOM) research has been to understand the diffusion of positive versus negative WOM among consumers (Brown & Reingen 1987; Herr, Kardes, & Kim 1991). While some scholars have shown negative WOM can trump positive WOM (e.g., Kamins, Folkes, & Pernes 1997), others have found positive WOM to prevail (e.g., East, Hammond, & Wright 2007). Yet, little is known about *when* consumers tend to share positive versus negative information in their conversations.

This research proposes that interpersonal closeness influences consumers' tendency to share positive versus negative information. By interpersonal closeness, we refer to the perceived psychological proximity between two individuals (Gunia, Sivanathan, & Galinsky 2009; Miller, Downs, & Prentice 1998). Such perceived proximity can stem from physical or social similarity (Latanè et al. 1995), emotional closeness (i.e., tie strength; Gunia et al. 2009) or even social roles (Rucker, Galinsky, & Dubois, in press). To illustrate, the more two people have strong ties, occupy similar roles in society or share particular physical or physiological traits, the higher their interpersonal closeness.

Specifically, we hypothesize that low interpersonal closeness prompts individuals to share positive rather than negative information, whereas high interpersonal closeness prompts individuals to share negative rather than positive information. Our hypothesis is based on the idea that high interpersonal closeness activates low-level construals while low interpersonal closeness activates high-level construals (Trope, Liberman, & Wakslak 2007). In turn, different levels of construal are associated with consumers sharing positive or negative information. Specifically, as shown by Eyal et al. 2004, *pros* (i.e., positive information) are associated with high-level construals whereas *cons* (i.e., negative information) are associated with low-level construals. Therefore, we hypothesize that low interpersonal closeness activates high-level construals, thus prompting senders to transmit positive rather than negative information, whereas high interpersonal closeness activates low-level construals, thus prompting senders to transmit negative rather than positive information. We test this hypothesis across three experiments.

Experiment 1 tested the hypothesis that individuals tend to transmit more negative information to close others, but more positive information to distant others. Participants were presented with a review of a camera containing five positive and five negative attributes. They were then asked to indicate the name of a close or distant other and the nature of the relationship with this person. Then, participants were asked to write a message about the camera addressed to the person they just indicated. Results revealed that participants included more negative attributes in their message when addressing a close recipient than when addressing a distant recipient ($p = .03$). Thus, participants tended to transmit more negative information to close others, but more positive information to distant others.

Experiment 2 tested whether negative opinions tend to be transmitted more across strong ties (i.e., chains of individuals close to one another) than across weak ties (i.e., chains of individuals distant from one another), while positive opinions tend to be transmitted more across weak rather than strong ties. Participants were placed into a "WOM chain" in which each individual acted first as a recipient and then as a sender of a message. To start the chain, participants occupying the first position were given a typed copy of a review of a hotel, which was either positive or negative, and were told the review came from either a close or distant person. Participants were then asked to transmit the message to a close or

distant other. Participants in the second position received the message written by a participant in position one, and then transmitted it to participant in position three, and so on. Individuals assigned to the weak (strong) tie condition were asked to imagine the review came from a distant (close) other, and prompted to send their review as if they were to write a message to a distant (close) other. We counted participants' positive and negative thoughts in each message. Results showed that participants tended to transmit negative information more within strong ties, reflected by a similar number of negative thoughts across the first, second and third position ($p > .60$), rather than within weak ties, reflected by a significantly decreasing number of negative thoughts across the three positions ($p < .01$). In contrast, they tended to transmit positive information more within weak ties, reflected by a similar number of positive thoughts across the three positions ($p > .50$), rather than within strong ties, reflected by a significantly decreasing number of positive thoughts across the three positions ($p < .01$). Overall, positive information was shared more across weak rather than strong ties, whereas negative information was shared more across strong rather than weak ties.

Experiment 3 tested the hypothesis that negative (positive) information tend to be transmitted more among similar (dissimilar) individuals rather than among dissimilar (similar) individuals. The procedure was the same as Experiment 2, although we manipulated perceived similarity between sender and recipient by telling participants, who were undergraduate students, the review came either from Paul, 21, another student (high-similarity) or from Roger, 61, retired (low-similarity). Results showed that participants tended to transmit negative information more among similar others, reflected by a similar number of negative thoughts across the first, second and third position ($p > .50$), rather than among dissimilar others, reflected by a decreasing number of negative thoughts across the three positions ($p < .01$), while they tended to transmit positive information more among dissimilar others ($p > .50$) than among similar others ($p < .01$). Overall, positive (negative) information was shared more among dissimilar (similar) individuals.

This research provides new insights on WOM by investigating how a central structural feature of interpersonal communication – psychological closeness between sender and recipient – can influence whether positive or negative WOM is more likely to be shared. We show that consumers tend to share positive information with distant others, but negative information with close others, and demonstrate the consequences for how positive versus negative information is differentially communicated among weakly and strongly tied networks.

For more information, contact: mdeangelis@luiss.it

"Listen, I'm not in the Mood but these Words Matter...to Me at Least" Coping with Ambivalence through Spreading Word-of-Mouth

Nico Heuvinck, Ghent University, Belgium*

Iris Vermeir, Ghent University, Belgium

Maggie Geuens, Ghent University, Belgium

Imagine that you simultaneously have positive and negative thoughts and feelings (i.e., ambivalent attitude) about, for example, the new iPad. How would that make you feel? What would you tell others about this device: positive and/or negative aspects? And would it make you feel any different at the end? Would it make a difference whether you know for sure or merely anticipate that the iPad has negative characteristics? And would your initial mood influence your answers on the above questions? The objective of the current paper is to study different types of subjective ambivalence (i.e., knowing versus anticipating conflicting information) and to investigate whether ambivalence can be reduced by spreading WOM.

Dominant and conflicting reactions, in combination, produce a state of subjective ambivalence. Irrespective of the underlying valence, dominant (conflicting) reactions refer to those thoughts and feelings which are greater (fewer) in number (Priester and Petty 1996). When one is aware of reactions s/he has about a product that are conflicting with the majority of reactions the individual has (i.e., dominant reactions), these conflicting reactions are called *manifest conflicting reactions*. When an individual has few or no deliberate conflicting reactions, s/he can still recognize that conflicting information might exist of which s/he is at present unaware. These conflicting reactions are called *anticipated conflicting reactions* (Priester et al. 2007). Based on the underlying type of conflicting reactions, we distinguish two types of subjective ambivalence: *manifest ambivalence* mainly results from conflicting reactions of which one is aware, whereas *anticipated ambivalence* arises when people are unaware but anticipate that conflicting information exists.

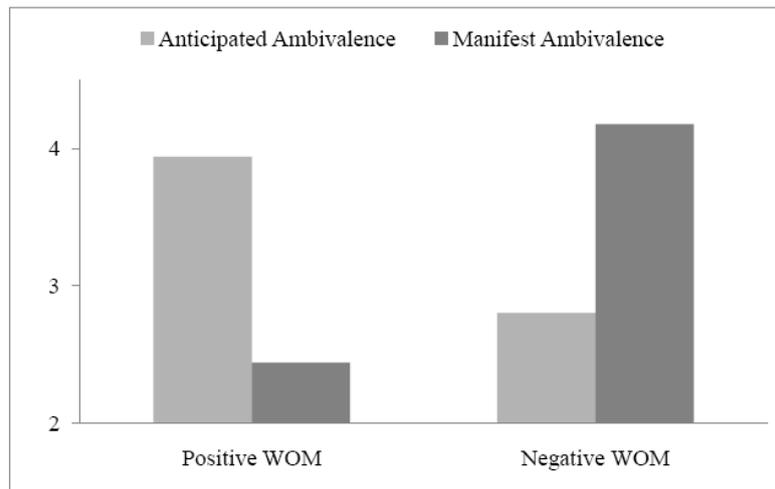
Ambivalence is generally experienced as aversive (Nordgren et al. 2006; Van Harreveld et al. 2009a; 2009b), especially when both positive and negative components are simultaneously salient and accessible (Newby-Clark et al. 2002). Manifest ambivalent individuals, who have access to both positive and negative components, are well aware of their conflicting reactions which renders ambivalence to become uncomfortable (de Liver et al. 2007; van Harreveld et al. 2009b). Furthermore, negative emotions instigate negative WOM (Wetzer et al. 2007). That is, spreading negative WOM is a form of venting the negative emotions experienced in an aversive situation (de Matos and Rossi 2008). Therefore, since only manifest ambivalent individuals are well aware of their conflicting reactions, we expect them to experience more intense negative feelings (i.e., ambivalence aversion) and as a consequence to spread more (less) negative (positive) WOM compared to anticipated ambivalent people.

The aversion accompanied by ambivalence motivates ambivalent people to reduce their ambivalence by, for example, engaging in biased information processing (Clark et al. 2008; Nordgren et al. 2006). In a related vein, spreading WOM is one of the most employed strategies for reducing cognitive dissonance. By spreading WOM to others, consumers try to convince themselves of their opinion by convincing others of the same opinion (Festinger 1957). However, spreading WOM has never been tested as an effective way to deal with ambivalence. As especially manifest ambivalent people are expected to experience intense negative feelings, they could be more motivated to reduce their ambivalence by spreading negative WOM.

An additional test of ambivalence aversion as instigator of spreading negative WOM could be provided by entering mood into the equation. A pre-existing mood dampens the intensity of an incongruent emotion, while increasing the intensity of the affectively congruent emotion (Neumann et al. 2001). Hence, the intensity of ambivalence aversion could be lower for manifest ambivalent people in a positive (versus negative) mood, while anticipated ambivalent people could experience higher ambivalence aversion in a negative (versus positive) mood. As a result, spreading negative WOM can be expected to be higher for anticipated ambivalent people in a negative mood, while a positive mood most likely results in spreading less negative WOM for manifest ambivalent people.

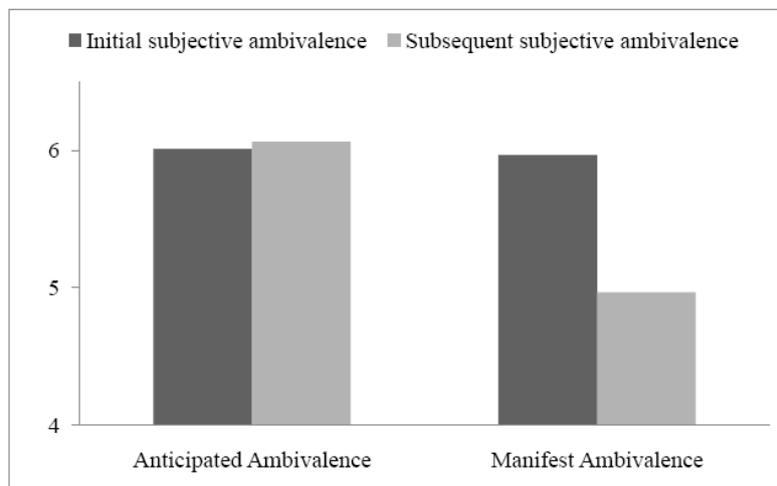
Study 1 tests the hypothesis that having manifest (versus anticipated) conflicting reactions leads to spreading more (less) negative (positive) WOM through ambivalence aversion. Manifest/anticipated conflicting reactions were manipulated by varying the amount of positive and negative attributes respondents received about an MP3-player and varying the opinion of one's best friend (cf. Priester et al. 2007). Respondents indicate their subjective ambivalence, ambivalence aversion, and how much positive/negative WOM they would spread. Results show that, although experiencing the same level of subjective ambivalence, manifest ambivalent people spread more (less) negative (positive) WOM than anticipated ambivalent people (see Figure 1) which is partially mediated by ambivalence aversion.

Figure 1: Reported positive and negative WOM by type of ambivalence, Study 1



Study 2 tests whether spreading WOM is used as a way to reduce subjective ambivalence. Similar methodology was used as in Study 1, but this time a digital camera (attributes pretested on importance) was used, WOM was assessed using an open-ended question, and a measure of subjective ambivalence was included after reporting WOM. Results of Study 1 were replicated. Moreover, engaging in WOM reduces ambivalence for manifest ambivalent people but not for anticipated ambivalent people (see Figure 2). Ambivalence aversion fully mediates the relation between type of ambivalence and ambivalence reduction.

Figure 2: Repeated measure of subjective ambivalence by type of ambivalence, Study 2



In Study 3, respondents were randomly assigned to one of three conditions in which a 5 minute movie clip induced either a positive, negative, or neutral mood (cf. Elen et al. 2011). Methodology was similar to Study 2. Results show that manifest ambivalent people in a positive (versus negative and neutral) mood experience less ambivalence aversion. Hence, they spread less (more) negative (positive) WOM and no ambivalence reduction after spreading WOM occurs. In contrast, anticipated ambivalent individuals experience higher ambivalence aversion in a negative (versus positive and neutral) mood. Hence, they spread more (less) negative (positive) WOM and an ambivalence reduction after spreading WOM occurs.

Our findings shed light on spreading WOM as a means to reduce subjective ambivalence. More specifically, manifest ambivalent people who experience high levels of ambivalence aversion reduce their ambivalence level by spreading especially negative WOM. Anticipated ambivalent people experience less ambivalence aversion and do not lower their

ambivalence by spreading WOM. Moreover, initial mood determines the level of ambivalence aversion an individual experiences and hence the extent to which negative and positive WOM are spread and ambivalence is reduced.

For more information, contact: nico.heuvinck@hogent.be

8.5 Individual Papers: Lucy in the Sky with Diamonds: The Sensory Side

Room: Cottonwood

Chair: Brittany Duff, University of Illinois, USA

Can brands sound feminine or masculine? Three studies on sound symbolism and gendered brand personality

Amelie Guevremont, Concordia University, Canada*

Bianca Grohmann, Concordia University, Canada

Choice of an attractive and appropriate brand name is an important aspect of brand identity (Aaker, 1991; Kotler, 1991). One approach to brand name selection is sound symbolism, which posits that people infer meaning from the smallest units of sounds (i.e., phonemes) words contain. Sound symbolism suggests that brand names influence brand perceptions. Research shows that phonemes influence brand recall, recognition and liking (Schloss, 1981; Vanden Bergh, Collins, Schultz & Adler, 1984; Vanden Bergh, Adler & Oliver, 1987), brand attribute perceptions (Yorkston & Menon, 2004) and brand name preferences (Klink, 2000, 2003). This article explores whether sound symbolism affects brand personality perceptions. For example, Estee Lauder and KFC differ considerably in terms of phonemes, but also in terms of gendered brand personality positioning. Does Estee Lauder's softer, lighter brand name affect perceptions of feminine brand personality? Does KFC's edgier sound suggest masculine brand personality?

Sound symbolism research distinguishes front from back vowels and stops from fricative consonants. Front vowels (e.g., [e]) form at the front of the mouth, whereas back vowels (e.g., [o]) originate at the back. Stops (e.g., p, k) generate complete closure of articulators, while fricatives (e.g., f, s) circulate air outside of the mouth (Sapir, 1929). Brand names with front vowels (compared to back vowels) connote smallness and lightness (Klink, 2000; Yorkston & Menon, 2004). Brand names with back vowels are preferred for categories where heavy and large are desired attributes (Lowrey & Shrum, 2007). Stops evoke hardness to a greater extent than fricatives (Heath, Chatterjee & France 1990), and fricatives relate more strongly than stops to attributes such as small, fast, light, and feminine (Klink, 2000). Building on the literature on the effects of sound symbolism on brand preferences and brand attribute perceptions, the following hypotheses regarding sound symbolism effects on gendered brand personality perceptions are tested: brand names containing a front vowel are perceived as more feminine (H1a), a back vowel are perceived as more masculine (H1b), a fricative are perceived as more feminine (H2a), and a stop are perceived as more masculine (H2b). Furthermore, this research explores consistency effects in line with cue-consistency theory (Miyazaki, Grewal, and Goodstein, 2005), such that consistent brand names including a front vowel and fricative are expected to be perceived as more feminine compared to brand names with only one of these cues (H3a) and consistent brand names including a back vowel and stop are perceived as more masculine compared to brand names with only one of these cues (H3b).

Method

This research consists of three experiments involving multiple product categories (i.e., athletic shoes, jeans and toothpaste — all pretested to be gender neutral) and different samples (undergraduate students and adult consumers). Artificial two-syllable brand names including a target front vowel, back vowel, fricative, stop, or (in)consistent combinations and neutral filler phonemes were created and pretested for equivalent category appropriateness,

familiarity, and attitude ratings. Experiment 1 involved the front vowel ee, back vowel o, fricative f, and stop k. Experiment 2 substituted e for ee to rule out any effects due to repetition (Argo, Popa & Smith, 2010). Experiment 3 involved new sets of phonemes: the front vowel i, back vowel u, fricative s, and stop t. Consistency effects were tested by combining either two consistent cues (e.g., ee and f) or two inconsistent cues (e.g., ee and k). Brand names appeared as visual cues, following the predominant approach in sound symbolism research (Klink 2003, 2009; Lowrey & Shrum, 2007; Yorkston & Menon, 2004) to rule out alternative explanations from oral presentation of names (pitch, speed, pronunciation; Klink, 2003). Participants evaluated brand names purportedly considered for a new brand in terms of masculine and feminine brand personality (Grohmann, 2009) and provided demographic information.

Major Findings

H1a (front vowels increase brand femininity perceptions) received partial support. In study 2, a significant interaction between phonetic cue and sex emerged (multivariate $F(2, 105) = 3.52, p < .05$). Men (compared to women) perceived brands as more feminine when brand names included a front vowel ($t(51) = 1.88$, one-sided $p < .05$). In study 3, a main effect of sound symbolism emerged ($F(1, 47) = 5.04, p < .05$), such that front vowels (compared to back vowels) lead to greater brand femininity perceptions. Partial support emerged for H1b (back vowels increase brand masculinity perceptions). The back vowel o increased brand masculinity perceptions compared to ee ($t(157) = 1.52$, one-sided $p = .06$), but not compared to e (Study 2). Study 3 showed a significant phonetic cue by sex interaction ($F(1, 47) = 6.12, p < .05$), such that men considered brand names using a back vowel as more masculine than did women ($t(25) = 3.65, p < .01$).

The effect of fricatives on brand femininity perceptions (H2a) was moderated by sex. In study 1, a significant phonetic cue by sex interaction (multivariate $F(2, 153) = 4.13, p < .05$) indicated that for men, fricatives increased brand femininity perceptions compared to stops ($t(77) = 2.55, p < .05$). In study 2, a significant interaction between phonetic cue and sex (multivariate $F(2, 99) = 3.21, p < .05$) revealed that women perceived brands with fricatives more feminine, compared to stops ($t(41) = 2.19, p < .05$). Stops influenced brand masculinity perceptions, as predicted in H2b. Study 1 revealed a significant effect of phonetic cue ($F(1, 157) = 7.13, p < .01$), such that brand names including a stop increased brand masculinity perceptions ($t(157) = 2.56, p < .01$). In study 3, this effect was marginally significant ($F(1, 46) = 2.98, p < .10$), such that the stop lead to greater brand masculinity perceptions ($t(48) = 1.79$, one-tailed $p < .05$).

Combination of phonemes with consistent gender associations did not enhance brand personality perceptions, as predicted by H3a and H3b. Only in Study 1 did a significant phonetic cue effect emerge (multivariate $F(4, 860) = 5.40, p < .001$), such that consistent cues increased brand femininity perceptions compared to one cue ($t(289) = 3.88, p < .001$) or two inconsistent cues ($t(296) = 2.24, p < .05$).

Results of the three studies suggest that sound symbolism has some influence on brand personality perceptions. Selecting a brand name that “sounds” feminine or masculine is a worthwhile strategy to pursue if this is the desired positioning for the brand. This research extends prior sound symbolism research by showing that effects hold for vowels not located at the extremes of the front/back continuum (Study 3: u, i) and reveals that sex moderates sound symbolism effects (cf. Klink, 2009). It also shows that a single cue appears more efficient than multiple consistent cues when creating a desired perception.

For more information, contact: a_guevr@jmsb.concordia.ca

The Ups and Downs of Visual Orientation: The Effects of Diagonals on Judgments

Ann Schlosser, University of Washington, USA*

Ruchi Rikhi, University of Washington, USA*

How information appears visually can influence how individuals judge objects independent of the textual information provided. In fact, the stylistic properties of images (e.g., camera angle) can convey semantic information and thus have important persuasive effects (Peracchio and Meyers-Levy 2005; Scott and Batra 2003; Yang, Zhang and Peracchio 2010). For instance, displaying a product vertically (vs. tilted downward) in an ad can communicate the concept of potency (Peracchio and Meyers-Levy 2005). The objective of this research is to delve further into the stylistic property of orientation by exploring the direction of diagonal and comparing these effects against horizontal orientations.

A horizontal line has been likened to an object lying flat (Gaffron 1956) and being static (Arnheim 1974; Wofflin 1950). Unlike horizontal lines, diagonal lines differ in their direction of tilt (Gaffron 1956). A tilted line that slopes from the lower left to the upper right is an upward diagonal, whereas a tilted line that slopes from the upper left to the lower right is a downward diagonal. Because visual information is processed from left to right, the left side is often the visual anchor that influences individuals' perceptions (Deng and Kahn 2009). In addition, because diagonals may convey movement (Arnheim 1974; Gaffron 1956; Wofflin 1950), upward diagonals are often described as "ascending" and downward diagonals as "descending" (Gaffron 1956). Due to this phenomenal experience, we propose that when the text and/or images about an object are organized to reflect an upward diagonal, the object will be perceived as more active and challenging than if that same information was organized to reflect a downward diagonal. In summary, we propose that the effect of diagonals on judgments depends on the direction of the diagonal as well as individuals' goals. Specifically, when goals require activity (e.g., enhancing strength, increasing energy, etc.), products should be judged more favorably when information is organized in an upward diagonal than horizontally (tested in studies 1-2) or a downward diagonal (tested in studies 2-3). However, when such goals are not activated, a steady-state (i.e., horizontal) orientation will likely produce higher product attitudes (tested in studies 1-2). Furthermore, when individuals' goals require relaxation, products should be judged more favorably when information is organized in downward than upward diagonal (tested in study 3).

In study 1, we selected 174 nationally-distributed beverage and supplement products that were sold at amazon.com. Two judges coded whether each products had an energizing goal (i.e., either implicitly or explicitly promoted a boost in energy), the orientation of text and images on the packaging, as well as other visual and product variables. As predicted, upward diagonals were more commonly used on products that stated or implied the benefit of being energizing (55.6% vs. 32.3%, $\chi^2(1, N=174) = 9.582, p < .01$). Moreover, an analysis of peer ratings on amazon.com yielded a significant goal x diagonal interaction regardless of whether the energizing goal was explicitly or implicitly stated ($F(1, 128) = 4.50, p = .04$ and $F(1, 128) = 4.03, p = .05$, respectively). Consistent with our hypotheses, product ratings were higher for products using upward diagonals when the goal was energizing than when it was not ($M_s = 4.28$ vs. 3.88). Further, a significant interaction emerged even when controlling for alternate explanations based on product price, number of product raters, and unique packaging ($F(1, 129) = 5.68, p = .02$).

Study 2 was a 2 (goal: weight loss vs. control) x 3 (orientation: downward diagonal, horizontal, upward diagonal) design. Sixty participants read and answered comprehension questions regarding an article on weight loss (weight-loss goal) or about Mattell (control). In a purportedly unrelated study, participants next viewed a vitamin-enriched water bottle on which the brand name and images were organized horizontally, on an upward diagonal, or on a downward diagonal. As predicted, a goal x directional interaction was significant, $F(2, 53) = 5.91, p = .01$. As predicted, when weight loss was primed, the upward diagonal led to higher purchase intentions than the downward diagonal and horizontal ($M_s = 5.25$ vs. 4.15 and 4.13), whereas when weight loss was not primed (the control condition). However,

when weight loss was not primed, the upward diagonal led to lower purchase intentions than the horizontal level and downward diagonal ($M_s = 3.55$ vs. 4.73 and 5.38). Importantly, there were no significant effects on attitudes toward the packaging, $F_s(2,53) < 1$.

Study 3 was a 2 (goal: adventure vs. relaxation) x 2 (diagonal: upward vs. downward) design. Eighty participants were instructed to imagine planning a vacation for adventure or relaxation. They then viewed an ad, in which the text and images emphasized either an upward or downward diagonal. For purchase intentions a goal x diagonal interaction was significant ($F(1,76) = 4.25$, $p = .04$). Replicating study 2, when an active goal (i.e., adventure) was primed, purchase intentions were higher in the upward than downward condition ($M_s = 5.21$ vs. 4.50). In contrast, when relaxation was primed, the upward diagonal led to lower purchase intentions than the downward diagonal ($M_s = 4.82$ vs. 5.63). A similar pattern of results emerged for participants' willingness to pay (WTP) for a vacation package ($F(1,76) = 4.13$, $p = .05$). As before, when adventure was primed, WTP was higher in the upward than downward condition ($M_s = \$594.82$ vs. $\$562.56$), and when relaxation was primed, WTP was lower in the upward than downward condition ($M_s = \$468.35$ vs. $\$635.05$). This pattern was also observed for attitudes toward the resort ($F(1,76) = 4.63$, $p = .04$) and carried over to influence participants' judgments of vacation resorts in general ($F(1,76) = 7.42$, $p < .01$). Importantly, there were no significant effects on attitudes toward the advertisement or processing fluency ($F_s(1,76) = .07$ and 1.46 respectively, NS), and controlling for these variables did not alter support for our hypotheses.

In summary, to our knowledge, this is the first empirical research demonstrating that upward/downward diagonals (1) convey movement of ascent/descent, and (2) differentially influence judgments.

For more information, contact: aschloss@u.washington.edu

Specificity in Sensitization

Young Eun Huh, Carnegie Mellon University, USA*

Joachim Vosgerau, Carnegie Mellon University, USA

Morewedge K. Carey, Carnegie Mellon University, USA

Eating a food engenders habituation, a decrease in one's responsiveness to the food to which one has been exposed and motivation to obtain it. A tenth bite, stanza, or minute, for example is usually less desired than the first (Rolls, Rolls, and Rowe, 1981). General-process theories of motivation also posit that eating a food also sensitizes one to other foods, increasing one's responsiveness and motivation to obtain all other food. A bite of what's on stove, for instance, whets one's appetite for a meal (McSweeney and Swindell, 1999; Wadhwa, Shiv, and Nowlis, 2008). Whereas habituation has been found to be stimulus-specific, the breadth and scope of sensitization is unclear; the specific path by which exposure to one stimulus sensitizes a person to another stimulus is not well understood.

We suggest that sensitization can occur through the top-down (motivational) processes involved in habituation. Motivational processes often adhere to scripts or a series of actions, whereby exposure to a stimulus or context initiates the actions planned upon exposure to the stimulus or the actions routinely performed in response to that stimulus (Custers and Aarts, 2010; Gollwitzer, 1999). A citrus smell, often paired with the act of cleaning, for example, prompts people to maintain a clean workspace (Holland, Hendriks, and Aarts, 2005). Consumption of a stimulus may thus evoke a desire to consume its complements—the consumption of a stimulus (e.g., cheese) may increase the desire to consume stimuli frequently consumed in conjunction with it (e.g., grapes or crackers). Across three experiments, we show that sensitization occurs for complements of a target food, but does not occur for unrelated foods.

Experiment 1 tested whether the same top-down processes that engender habituation to a food can engender sensitization to its complements. In a between-subjects design, participants imagined eating 3 or 30 units of cheese (i.e., the target food) or grapes (i.e., a complement) before consuming cheese ad libitum. Whereas the imagined consumption of cheese habituated participants to cheese, the imagined consumption of grapes sensitized participants to cheese. In other words, participants who imagined eating 30 cubes of cheese ate less cheese than did participants who imagined eating 3 cubes of cheese, whereas participants who imagined eating 30 grapes ate significantly more cheese than did participants who imagined eating 3 grapes. These results provide initial evidence that sensitization can occur through the same top-down processes that engender habituation.

Experiment 2 tested whether complementarity is necessary for sensitization. In a between-subjects design, before eating cheese, participants imagined eating 3 or 30 units of crackers (i.e., a complement) or M&M's (i.e., an unrelated food). We found that only imagined consumption of the complement sensitized participants to cheese. In other words, participants who imagined eating 30 grapes ate significantly more cheese than did participants who imagined eating 3 grapes, but participants who imagined eating 30 M&M's consumed no more cheese than participants who imagined eating 3 M&M's. The results suggest that the top-down processes involved in sensitization do not sensitize one to all stimuli, only to foods typically consumed in conjunction with the target food.

Two psychological processes appear to regulate food intake (Berridge 1996). One process is liking (i.e., the pleasure derived from eating a given food), and the other is wanting (i.e., motivation to obtain a food). Experiment 3 examined which process is responsible for sensitization by imagined consumption. Participants imagined eating 3 or 30 grapes. All participants then indicated how pleasurable it would be to eat cheese right then (liking) and how much they would be willing to pay for one pound of cheese (wanting). Participants who imagined eating 30 grapes indicated significantly higher WTP than did participants who imagined eating 3 grapes. However, liking for cheese did not differ between the two conditions. The results suggest that the same top-down motivational processes involved in habituation sensitize one to stimuli consumed in conjunction with the stimulus to which one has been exposed.

In summary, we found that sensitization occurs for foods frequently consumed in conjunction with a target food (i.e., complements), but does not occur for unrelated foods. In three experiments, the repeated imaginary consumption of a food increased actual consumption of its complements but did not affect consumption of unrelated foods. The present investigation attests to the importance of top-down processes that regulate food consumption.

For more information, contact: youngeuh@andrew.cmu.edu

Will I Like a New Diet Coke More or Less? Reversing Ease of Retrieval Effects with Sensory Product Experience

Kelly (Kiyeon) Lee, University of Toronto, Canada*

Andrew Mitchell, University of Toronto, Canada

Prior research has shown that consumers make more favorable judgments when it is easy (vs. difficult) to retrieve information. For instance, consumers evaluate a brand more favorably when recalling two (vs. eight) product features after reading an advertisement (Menon & Raghurir, 2003) or form more favorable attitudes toward a BMW when listing one (vs. ten) reasons for choosing a BMW over a Mercedes (Wanke, Bohner, & Jurkowsch, 1997).

In this research, we examine whether previous findings on ease-of-retrieval can be extended to the context of direct product experiences. As Bazerman (2001) points out, consumer behavior research has traditionally focused more on information processing and has understudied product usage. Investigating the role of direct product experience in

consumer behavior is of critical importance to marketers and consumers since consumers have shown inconsistent preference depending on whether they have direct product experience or not (Thompson, Hamilton, & Rust, 2005) and attitudes formed through direct behavioral experience provide better predictions of future behavior than attitudes formed through indirect experience (Fazio, Zanna, & Cooper, 1978). We believe that with direct product experience, ease-of-retrieval will produce different effects because direct product experience will provide a rich base of sensory information as opposed to situations where individuals merely recall instances or read advertisements. In addition, sensory information obtained from direct product experience is real and is not to be doubted, which results in consumers trusting their experiences (Smith, 1993) and their interpretations of them. Consequently, their interpretations magnify the information generated from the experience in spite of having the same subjective feeling of ease or difficulty as in indirect experience situations.

We conducted four experiments to test our expectations. Experiment 1 tested our expectations using a drink taste test. Participants were told that a company had developed a new soft drink targeting young adults. After tasting the drink, participants were asked to generate 10 reasons or 2 reasons why they like or dislike the drink. Although participants found it to be more difficult to generate 10 than 2 reasons, they evaluated the drink more positively when listing 10 than 2 reasons in positive-reasons-generation conditions. However, in negative-reasons-generation conditions, they evaluated the drink less positively when listing 10 than 2 reasons.

The objective of Experiment 2 is twofold: First, we used a different product—a hand lotion to generalize our findings of Experiment 1. Since hand lotions are used primarily by women, we used only female participants. Second, we wanted to rule out a motivation explanation for the findings of Experiment 1 by manipulating personal relevance. Previous research has found that individuals tend to rely on thought content under high motivation, whereas they tend to rely on ease-of-retrieval under low motivation (Rothman & Schwarz, 1998). Participants in Experiment 1 were highly motivated since they were the target market of the drink and their evaluations would be incorporated in the development of the soft drink. This high motivation may lead them to rely on thought content, not on ease-of-retrieval. For the high motivation condition, we used the same instructions of Experiment 1. For the low motivation condition, participants were told that the target market of the hand lotion was older adults and that their opinions would remain anonymous and be used after aggregating them with those of other groups (Maheswaran & Sternthal, 1990; Petty, Harkins, & Williams, 1980). If we find consistent results under high and low motivation conditions, this indicates that our findings are not due to motivation. Although participants reported greater difficulty in generating 8 reasons than 2 reasons, they evaluated the hand lotion more (less) favorably when generating 8 than 2 positive (negative) reasons under both conditions. Further, we did not find any difference in product evaluations between high and low motivation conditions, which rules out the motivation account.

Although we ruled out the motivation account, one may argue that participants may still rely on thought content (e.g., reasons), not ease-of-retrieval. To rule out this thought-content account, Experiment 3 employed a yoked design (Wänke, Bless, & Biller, 1996). We expect that ease-of-retrieval should influence only those who generate reasons themselves as in previous experiments. When participants simply read reasons generated by others, they do not have subjective experience (feeling of ease or difficulty) and make judgments about a product based on the content of reasons (thoughts). We found that readers who did not have subjective experience did not show any differences in their attitude toward the hand lotion based on the number of reasons within the same valence, which is different from findings in Experiment 2. This indicates that only generators who write their own reasons and have subjective experience can show the magnified effect of ease-of-retrieval on product evaluations.

Experiment 4 was conducted to directly test whether having direct vs. indirect experience produced different outcomes. In the indirect experience, we gave participants only a verbal description which was based on the experiences of

participants who used the product. Participants who had direct experience with a hand lotion liked the hand lotion more when generating 8 than 2 reasons. However, participant who did not have direct experience with the hand lotion liked the hand lotion more when generating 2 than 8 reasons. These findings provide further evidence for the magnified effect of ease-of-retrieval on product evaluations.

Taken together, our findings showed that ease-of-retrieval magnifies thought content in the context of direct product experience, which is contrary to previous ease-of-retrieval findings. Across four experiments, we obtained the same results in different sensory products (e.g., a soft drink, a hand lotion) and ruled out a motivation account in Experiment 2 and a thought-content account in Experiment 3. This research contributes to extend our understanding of the role of ease-of-retrieval in the context of direct product experience by demonstrating that metacognitive difficulty magnifies thought content. Further, it demonstrates the importance of investigating product usage since consumers may have consistent preference by engaging in direct product experience prior to purchase and firms may have better understanding of consumers' preference and demand.

For more information, contact: kiyeon.lee07@rotman.utoronto.ca

8.6 Individual Papers: Food Glorious Food

Room: Mesquite 2

Chair: Julio Sevilla, University of Miami, USA

Using Contextual Positioning to Bias Healthier Social Behavior

Brennan Davis, Baylor University, USA*

Beth Vallen, Fordham University, USA*

Brian Wansink, Cornell University, USA

Other people can influence the decisions we make in virtually all consumption domains. Whether relying on an established social norm suggesting what behavior is appropriate (such as queuing in the back of a line) or the observed behavior of others (such as laughing when others laugh while viewing a film), consumers tend to anchor their own behavior on their expectations about or observation of the behavior of others (Feunekes, de Graaf and Van Staveren 1995; Kulviwat, Bruner, and Al-Shuridah 2009). Yet even though there are many situations in which the social norms are not clear, people still manage to dress suitably for social gatherings without knowing what others will wear and to appropriately order from fast-food menus without knowing what others will choose. This raises the following question: when social norms are ambiguous, what contextual cues bias behavior in a social context and how can these cues be altered by managers and public policy officials to guide consumers toward healthier behaviors?

In situations in which individuals consume socially and yet a norm for consumption cannot be observed, we posit that consumers infer normative behavior through cues in the external environment to serve as standards for consumption. While it has been contended that environmental cues have a wide-ranging influence on consumption behavior (Wansink 2004), this research investigates instances where the cues from the external environment are used by consumers in place of social norms to serve as standards for consumption behavior in a social context. Along these lines, we explore the manner in which contextual positioning and social context impact consumer behavior by evaluating both the effects of the norm suggested by the positioning of the consumption venue (e.g., City Hall versus a city park) as well as the social context (e.g., the presence versus absence of social others) on both choice and consumption. So, when gathering with others at City Hall, people may be more inclined to don a suit than shorts; on the other hand, when gathering as a group at a city park, people may be more likely to wear shorts than a suit. In the absence of social others, however, individuals

are free from the evaluative concerns that drive them to behave in line with social norms and, hence, are less likely to rely on contextual cues to serve as behavioral reference points. Exploring both the outcomes of and processes underlying the joint effects of social norms and environmental cues can help individuals and organizations to understand and influence the process by which consumers decide to engage in a variety of consumption behaviors—such as adopting a pet, making healthier food selections, or volunteering—that are subject to the influence of social norms that may not be easily inferred.

This research demonstrates that, in the absence of clear social norms, individuals look to cues from the consumption context to serve as standards for behavior when they consume with others. The results of four studies provide support for our primary predictions that the social context created by the presence versus absence of others and environmental cues based on contextual positioning jointly impact consumption behavior. Data from our observational study show that when individuals dine with others, they consume fewer calories at a venue positioned as relatively healthy (i.e., Chipotle) compared to when they eat alone; conversely, individuals consume more calories and make less healthful choices when they dine with others at venues positioned as relatively unhealthy (i.e., Taco Bell) compared to when they eat alone. The results of a laboratory study demonstrate that these findings replicate across disparate consumption venues (i.e., a deli versus a diner, and a healthy versus unhealthy campus dining hall) and, moreover, that they apply not only to caloric consumption, but also to choice; compared to those eating alone, individuals dining with others make more healthful choices (i.e., apple slices and steamed veggies) when dining at healthy-positioned venues while individuals tend towards less healthful selections (i.e., french fries and fried veggies) when dining at venues positioned as unhealthy. The results from two additional laboratory studies show that these effects are driven by the desire to adhere to a social signal implied by the venue positioning when consuming with others, and particularly when invited by others, but not when consuming alone. Individuals are more likely to make choices that are consistent with a food venue's health positioning and, further, are more likely to elaborate on health when dining at a healthy venue and taste when dining at an unhealthy venue when invited by others versus dining alone. These health-related thoughts mediate the relationship between contextual positioning and social context on choice.

These findings contribute to literatures exploring the impact of social influences and environmental cues on consumption behavior in two important ways. First, we show that cues gleaned from the consumption context can suggest norms that, in turn, bias consumption. Prior research has demonstrated the impact of contextual cues on consumer behavior (e.g., Chandon & Wansink 2007), and we build on this research by addressing the differential effects of such environmental factors in a social versus non-social context or, relatedly, by exploring the sources to which consumers turn in the absence of definitive social norms. Second, we demonstrate that the effect of contextual cues varies based on the social presence of others and whether those social others initiate the social context, thereby strengthening the influence of norms on behavior.

While our findings demonstrate clear implications for eating behavior, the role of contextual positioning in a social consumption setting reaches far beyond the food domain to include various consumption behaviors. For example, a wine retailer named West Coast Wines might sell expensive products that are consistent with the brand's west coast region in brick-and-mortar stores, where social consumption is more prevalent, while selling a broader selection of products online where social consumption is less prevalent. Given the joint impact of social influence and environmental cues on consumption, parties involved in marketing exchanges will be well-served to understand the outcomes associated with these effects.

For more information, contact: brennan_davis@baylor.edu

Becoming a Mindful Eater: Improving Food Choices through Emotional Ability Training

Blair Kidwell, University of Kentucky, USA

David Hardesty, University of Kentucky, USA

Terry Childers, Iowa State University, USA

Jonathan Hasford, University of Kentucky, USA*

Poor food choices have far reaching negative consequences for consumers including obesity and decreased quality of life (Chandon and Wansink 2007) and have contributed to the burgeoning healthcare crisis (Cheema and Soman 2008). As a result, government programs and mandates to inform consumers of the caloric content of their food choices have been implemented across the United States (Rosenbloom 2010). However, we suggest an alternative to these programs by developing the mindfulness of consumers through emotional ability training. Emotional ability training has the potential to enable consumers to more systematically think about their choices and subvert underlying tendencies to engage in unhealthy, yet hedonically rewarding decisions.

In this research, we draw upon the emotional calibration framework to understand how emotions impact food choice. Emotional calibration involves the correspondence between one's emotional intelligence (EI, also known as emotional ability; Kidwell et al. 2008a) and consumers' confidence in their emotional ability (i.e., subjective emotional knowledge). Since emotions can have profound influences on daily decisions (Schwarz and Clore 1996), enhancing one's knowledge about emotions and how emotions can be used to make better quality decisions. Despite the potential importance of training people to more effectively use their emotions, research has yet to develop and implement an EI training program that not only can increase emotional abilities, but also show improvements in performance of trained individuals. In two studies, we utilize the default-interventionist framework (Evans 2008) to show that the development of emotional intelligence creates more emotionally calibrated consumers (Kidwell et al. 2008b), allows individuals to more analytically process their food decisions, and ultimately improves food choice. Conversely, individuals who lack emotional abilities are susceptible to heuristic processing of food choices (i.e. tasty = unhealthy heuristic; Raghunathan, Naylor, and Hoyer 2006) and subsequently make poorer food choices.

Study 1

Participants completed either EI training or training in nutrition knowledge (NK; mirroring current government mandates). One hundred and twenty-three students with high confidence and low emotional ability were selected from a prescreening survey that included the consumer EI scale (CEIS, Kidwell et al. 2008a) and related confidence items. Of the 123 individuals contacted, 49 signed up to participate in the study (Response Rate = 39.8%, 25 EI participants and 24 NK participants). Participants in both conditions completed a 45-minute training session described as equally informative ($p > .05$) and clear ($p > .05$) across training conditions.

After training, participants completed the CEIS and related confidence items. Participants also completed the unhealthy = tasty Implicit Association Test (IAT; Raghunathan et al. 2006). Upon leaving the lab session, participants completed the study by keeping a 24 hour food diary of all food and drinks consumed 48 hours after their training session. Calories were computed via independent raters. The diary also contained follow-up items measuring how analytically their food choices were made during the 24 hour period.

Results showed significantly higher emotional intelligence for EI trained participants (norm CEIS score = 109.83) relative to NK trained participants (87.98, $p < .01$). Furthermore, EI trained participants reported significantly lower caloric intake ($M = 1823$) relative to NK trained participants ($M = 2388$, $p < .05$). Lastly, PLS was used to demonstrate that emotional calibration was positively related to analytic processing ($\beta = .37$, $t_{44} = 2.37$, $p < .05$), which was

negatively related to caloric intake ($\beta = -.32$, $t_{44} = -2.45$, $p < .05$). Conversely, emotional calibration was negatively related to heuristic processing ($\beta = -.39$, $t_{44} = -3.72$, $p < .05$), which was positively related to caloric intake ($\beta = .28$, $t_{44} = 3.56$, $p < .05$). Study 1 thus demonstrates the ability of emotional ability training to improve food choice. Study 2 investigated the impact of EI training on confidence, identified the underlying mechanism of positive arousal, and demonstrated the longitudinal effect of training on caloric intake.

Study 2

Participants completed either EI training or were in a no-training control condition. Two hundred and seventy students with low confidence and low emotional ability were selected from a prescreening survey. Of the 270 individuals contacted, 69 signed up to participate in the study (Response Rate = 39.8%, 34 EI trained participants and 35 control participants).

The design was similar to Study 1. However, after participants were (not) trained, they completed measures of positive arousal toward their food decisions in addition to the CEIS, confidence items, and the IAT. After the lab session concluded, participants again completed a food diary after training with similar explicit processing items.

Results provided additional support for the effects of training on emotional ability, confidence, analytic processing, and food choice. Individuals in the EI group following training scored higher on the CEIS than the control group ($M = 108.5$ vs. 91.1 , $t_{61} = 5.64$, $p < .01$). Furthermore, individuals trained in EI had higher reported confidence in their emotional ability relative to individuals in the control group ($M = 89\%$ vs. 68.6% , $t_{61} = 5.96$, $p < .01$). PLS analysis demonstrated support for the proposed model. Emotional calibration was positively related to positive arousal ($\beta = .30$, $t_{59} = 2.90$, $p < .01$), which was positively related to explicit processing ($\beta = .19$, $t_{59} = 2.13$, $p < .05$). Explicit processing was negatively related to caloric intake ($\beta = -.17$, $t_{59} = -2.02$, $p < .05$).

Approximately 3 months after completing the initial food diary, participants were again contacted to complete another 24 hour food diary. 17 EI trained and 20 control participants completed the follow up diary for 10 dollars. Results remained consistent as EI trained participants consumed significantly fewer calories relative to control participants ($M_s = 1555$ vs. 2173 , $t_{35} = 4.13$, $p < .01$). These results provide support for the longitudinal effects of EI training on caloric intake.

The results of two studies demonstrate the ability of emotional ability training to increase the mindfulness of individual food choice and improve food decision making. These findings further develop the emotional calibration framework and provide implications for transformative research and government programs and mandates aimed at improving consumer health.

For more information, contact: jonathan.hasford@uky.edu

Eating Only little Makes You Try Everything - Restrained Eating Fosters Variety Seeking

Anne Klesse, Maastricht University, The Netherlands*

Caroline Goukens, Maastricht University, The Netherlands

Kelly Geyskens, Maastricht University, The Netherlands

Ko de Ruyter, Maastricht University, The Netherlands

Americans' obsession with dieting (Freedman 2010) has boosted the sales of diet shakes and light versions by up to a third in the past two years (Mail Online 2010). Consequently, companies offering such diet-related food (e.g. Weight-Watchers and Kellogg's Special K) increased their product range drastically (Consumerlab 2008). Moreover, these products are often advertised to the consumer with the message that integrating variety in one's choice makes it a lot easier to maintain a healthy diet.

Consumers like to have a variety of choice (Huffman and Kahn 1995). However, research demonstrating behavioral differences between dieters and non-dieters (Herman and Polivy 1984; Papies, Stroebe & Aarts 2008; Irmak, Vallen, & Rosen Robinson 2011) raises the question whether dieters and non-dieters differ in the extent to which they engage in variety seeking. Since dieters try to limit themselves in how much and what they eat, it seems questionable whether they are open to try out new things and integrate variety in their choice. In contrast, recent research suggests variety seeking can provide individuals, who feel spatially confined (Levav & Zhu 2009) or face restriction cues (Klesse, Goukens, Geyskens, & de Ruyter, working paper), with the possibility to reassure their personal freedom. Accordingly, we argue that individuals who restrict their eating behavior engage in more variety seeking than individuals who do not limit their food intake since it provides them with a sense of freedom. We test this proposition across four studies.

Studies 1a (N = 66) and 1b (N= 28) investigate whether being on a diet leads individuals to engage in variety seeking to a greater extent. Participants filled out a personality questionnaire in which they had to indicate how strongly they agree with the statement 'I am on a diet'. As a thank you for their participation they could win a voucher for five sandwiches (study 1a¹) or a snack box (study 1b²). Like Goukens, Dewitte, Pandelaere, and Warlop (2007) we measured participants' variety-seeking behavior as the number of different items they chose. Study 1a ($p < .05$, $\beta = .185$) as well as 1b ($p < .05$, $\beta = .257$) reveal significant positive relationships between dieting and the number of different items chosen.

Study 2 (N = 22) tests robustness of the effect by making two changes to our initial design. More specifically, in study 2 we measure real consumption behavior and participants' restrainedness. Extant research showed that dieters often become restrained eaters after repeated dieting attempts (Herman & Polivy 1980). These restrained eaters are concerned with their weight and learned to ignore internal cues of hunger and adhere to externally-imposed demands such as foregoing certain types of food or eating a restricted number of calories (Heatherton, Polivy & Herman 1989). Measuring participants' restrainedness helps to capture a broader range of characteristics and eating peculiarities of chronic dieters. Participants received a plate with 30 cookies of five different types and were asked to eat while watching a documentary to investigate the effect of eating on the enjoyment of the documentary. The number of different cookies eaten indicated participants' variety-seeking behavior. Our results show a significant positive relationship between restrainedness and the number of different cookies eaten ($p < .05$, $\beta = .107$).

In the third study, we investigate the underlying process of the effect that dieters/restrained eaters engage in more variety seeking than non-dieters/unrestrained eaters. We argue that restricting one's food intake constitutes a threat to one's personal freedom although it occurs voluntarily. This choice restriction (Botti et al. 2008) possibly triggers variety seeking as an attempt to reassure one's personal freedom. Study 3 (N = 135) manipulates whether participants impose a restriction on how much/what they are allowed to eat on that day by asking half of the participants to generate a mental budget (Krishnamurthy & Prokopec 2010) of how many snacks they allow themselves on that day (e.g. I only eat two snacks today). Afterward all participants participated in an ostensibly unrelated test, tasting a piece of waffle or cake. At the end of the study they could choose between a piece of cake or waffle to take home. Selecting the cake when having tasted the waffle during the taste test constitutes variety seeking while selecting the waffle does not. One week after the session, the restrained scale by Herman and Polivy (1980) was assessed through a personality questionnaire. Our results show a significant positive relationship between restrainedness and variety seeking ($p < .05$,

beta = 1.91) and between mental budget and variety seeking ($p < .05$, beta = .88) but an insignificant interaction effect ($p > .05$, beta = - 1.27). This implies that not only restrained eaters seek more variety but also unrestrained eaters if they restrict their eating behavior.

In a last study (N= 24), we investigate whether the found effect still holds when the choice set consists of products differing in perceived healthiness (i.e. two light and two normal chips flavors). We assessed the restrainedness scale in a personality questionnaire and asked participants to indicate four potato chips packages choosing between two light and two normal potato chips flavors³ that could be won. The negative relationship ($p < .05$, beta = -.083) between restrainedness and variety seeking indicates that restrained eaters no longer engage in heightened variety seeking when choosing between light and normal products .

Overall, our studies demonstrate that individuals who restrict their food intake seek more variety than those that don't. In doing so, our research advances existing research on variety-seeking behavior that revealed variety-seeking behavior as a means to regain one's freedom by demonstrating that even self-imposed restrictions trigger increased variety seeking.

¹ Participants could choose any five sandwiches from a form listing five different sandwiches (chicken, ham, cheese, tuna, and cream cheese).

² Participants could choose five snacks from a form listing five different snacks (potato chips, tortilla chips, salt sticks, nuts, and crackers).

³ Participants could choose from Mediterranean herbs, paprika, original and cheese & onion potato chips. We randomized which two chips flavors were presented as light.

For more information, contact: k.klesse@maastrichtuniversity.nl

"The Less There is the More I Want": The Effect of Scarcity on Satiation

Julio Sevilla, University of Miami, USA*

Joseph P. Redden, University of Minnesota, USA

Shenghui Zhao, University of Miami, USA

Satiation occurs when people find a stimulus less pleasant as they consume more of it (Coombs and Avrunin 1977). Although satiation partially depends on the objective amount consumed, recent research has shown that its occurrence can be delayed (Rozin 1998, Nelson and Meyvis 2008; Redden 2008; Nelson, Meyvis and Galak (2009), accelerated (Morewedge, Huh and Vosgerau 2010), or even partly reversed (Galak, Redden and Kruger 2009) by psychological factors.

Past research on the psychological determinants of satiation has looked at aspects such as memory (Rozin 1998; Galak, Redden and Kruger 2009), imagination (Morewedge, Huh and Vosgerau 2010), categorization (Redden 2008) and consumption rate (Nelson and Meyvis 2008; Nelson, Meyvis and Galak 2009). However, no paper has investigated how different beliefs about the properties of a product affect the speed at which people satiate from it. In this research we show that merely telling people that a product is scarce will make them satiate from it at a slower pace.

Past research also has shown that scarce products are highly desirable (Verhallen 1982; Verhallen 1994; Inman, Peter and Raghurir 1997). In this paper, we manipulate people's beliefs about how scarce a product is, and observe a slower satiation rate associated to its consumption. We also show that the increased enjoyment is not due to an improvement in

perceived taste associated with beliefs about higher quality of the stimulus, as ratings of initial liking are the same for stimuli that are believed to be either scarce or common. Instead, we find that attention to the quantity consumed mediates the effect. This is because when people encounter a situation where they have access to a scarce product, they will feel an urge to take advantage of this rare opportunity, and this leads them to consume it in larger amounts.

This phenomenon may have an evolutionary foundation. Covasa and Ritter (1999) have shown that rats develop the ability to become less sensitive to the consumption of oleate, an important compound present in fat. Since lipids are scarce nutrients that this species does not have frequent access to, in the rare occasions they do, they will consume it in abundant amounts, given the uncertainty about when the next time they will have access to it will be.

This reduced sensitivity to oleate in rats is similar to a human loss of the ability to keep track of consumption of a presumably scarce product. In this case, the insensitivity to satiation to a stimulus believed to be scarce is not physiological but psychological in nature, as the elements tested in our studies cannot be identified by the human body as being vital for survival as is the case of oleate in rats. Three studies provide support to our hypothesis that making people believe that a product is scarce will decrease the satiation rate during consumption.

Study 1 provides evidence for the effect in a consumption setting. We asked participants to consume chocolate and provide sequential ratings of their enjoyment of the experience in a between-subjects design. Half of the participants were told that the chocolate they were eating was made from cocoa grains that grew only in a few places of the world during a limited time every year, which led them to believe it was scarce. The other half were told that it grew in many parts of the world throughout the year, which indicated that it was widely available. It is important to mention that this scarcity manipulation did not make participants believe that one stimulus was of higher quality than the other, as they only differed in terms of their natural availability. This was reflected in our results, which showed that participants provided equal initial enjoyment ratings for the chocolate in both conditions. However, participants in the scarce condition subsequently satiated from the chocolate at a slower pace. A mediation analysis showed that the differences in the slopes of satiation between conditions, was explained by attention to the quantity being consumed.

Study 2 replicated the results of the first study and demonstrated the generalizability of the effect using Hawaiian landscapes pictures as stimuli. In a between-subjects setting similar to the one used in Study 1, it was shown that participants satiated slower from looking at the pictures when they were told that these belonged to landscapes that could be captured only during a limited time every year due to environmental factors.

Study 3 provides further support for attention to quantity as the underlying mechanism behind the effect. In a design similar to Study 1, it was shown that the difference in enjoyment of the chocolate between the scarce and the common conditions disappeared when participants were asked how many pieces of candy they had eaten at the end of every consumption episode.

Study 4 replicates the effect of scarcity on satiation using a healthy stimulus such as grapes. This rules out the alternative explanation that the effect is not due to some type of license to sin (Fitzsimons, Nunes and Williams 2008), caused by participants trying to use the presence of a rare consumption opportunity as an excuse to indulge.

This research contributes towards the understanding of the psychological nature of satiation by looking at a new dimension of the consumption experience. It is demonstrated that erroneous beliefs about the nature of a stimulus can affect the rate at which people satiate from it. This paper also introduces an additional benefit of promoting scarcity in the marketplace, as it is shown that people satiate at a slower pace from products that are claimed to be scarce, regardless of the veracity of these claims.

For more information, contact: sevilla@miami.edu

8.7 *Conversations: Reviewing*

Room: Mesquite 1

Rashmi Adaval, HKUST, Hong Kong

Kristin Diehl, University of Southern California, USA

C. Page Moreau, University of Colorado, USA

Author Index

A

Aaker
Jennifer74

Abendroth
Lisa 2

Abraham
Ajay.....56

Ackerman
Joshua2, 99, 100, 119

Adaval
Rashmi.....52, 196

Agarwal
James52

Ahn
Hee-Kyung2, 102, 104, 180
Hongmin2, 36

Albinsson
Pia A..... 2

Alter
Adam L56, 92

Amar
Moty188

Amaral
Nelson161

Andrzejewski
Susan2, 46

Anne
Stuart 2

Ansons
Tamara..... 2

Aquino
Karl147

Argo
Jennifer . 1, 2, 60, 69

Ariely
Dan56, 184, 188, 189

Arsena
Ashley Rae2, 44, 112

Ashworth
Laurence109

Assiouras
Ioannis 2

Astray
Tatiana.....2, 137

Atakan
Sukriye Sinem..... 2

Atalay
A. Selin 2

Atlas
Stephen2, 91

Attaran
Sharmin..... 2

Avery
Jill63

Ayal
Shahar.....188

Aydinli
Aylin2, 49, 92

Aydinoglu
Nilufer Z.50

B

Bagchi
Rajesh1, 2

Bajaj
Aditi28

Banerjee
Pratyush122

Banker
Sachin2, 118

Barasch
Alixandra123

Barbulescu
Adina..... 2

Bartels
Daniel91, 158

Baskin

Ernest.....151, 152

Bastos
Wilson..... 2, 95

Bates
Kenneth..... 177

Bauer
Hans H. 35
Johannes C..... 93

Baxter
Stacey 135

Bee
Colleen..... 2, 39

Belei
Nina..... 87

Belisle
Deny 26

Bellezza
Silvia 161

Bennett
Christine..... 2

Berger
Jonah61, 73, 167

Berman
Jonathan 2

Bertini
Marco..... 92

Beruchashvili
Mariam..... 3

Bettman
James 64

Bhatnagar
Namita 130

Bickart
Barbara..... 3, 46

Bilgin
Baler 37

Blagg
Josh 126

Blair
Sean 3

Blanchard
Simon J. 3

Block
Lauren ...29, 48, 111

Bodur
H. Onur 26

Bogaerts
Tess 34

Boland
Wendy Attaya 3, 173

Bolton
Lisa E.....1, 3, 106

Bond
Samuel 3, 28

Bonezzi
Andrea 61, 177, 191

Bonifield
Carolyn 3

Borrero
Silvio 3

Böttger
Tim..... 112

Botti
Simona..... 1, 3

Boynton
Geoffrey 66

Braig
Bridgette M..... 118

Brasel
S. Adam 3, 149, 162

Brenner
Lyle 106

Brey
Eric..... 3

Brigden
Neil..... 3

Briley

Donnel A. 71

Britton
Julie Edell 3

Brough
Aaron R. 3, 61

Brucks
Merrie 95

Brunner
Thomas A. 3, 117

Bruyneel
Sabrina 43, 164

Bublitz
Melissa 27

Buechel
Eva3, 72, 73, 155, 156

Bui
Myla..... 134

Burroughs
Jim..... 178

Burson
Katherine .. 1, 3, 174

Busljeta Banks
Ivana 3

Buttle
Heather..... 3

C

Cabooter
Elke..... 3

Campbell
Troy 3, 119

Caprariello
Peter A. 96

Carey
Morewedge K. 193

Carmichael
Jennifer..... 3

Carmon
Ziv 143

Carnevale
Marina..... 3, 48

Carroll
Ryall 34

Carvalho
Sergio..... 32, 110

Castro
Iana 3

Catlin
Jesse..... 3

Caubergh
Veroline..... 3

Chae
Boyoun (Grace)71, 83, 102

Chakraborti
Rajdeep 3, 122

Chan
Cindy 3, 50, 86
Elaine 1, 3
Steven 141, 142

Chance
Zoe 3

Chandon Ince
Elise 1, 3

Chang
Chiu-chi Angela.... 3
Hua 166

Chaplin
Lan 3

Chartrand
Tanya 70

Chatterjee
Promothes 3

Chattopadhyay
Amitava41, 60, 79, 190

Chaudhuri
Arjun..... 35

Chavez

- Noel.....146
 Chaxel
 Anne-Sophie..... 3
 Cheema
 Amar153
 Chen
 Fangyuan.....3, 103
 Jiemiao..... 3
 Johnny85
 Rongjuan..... 3
 Yu-Jen132
 Zoey 3
 Chernev
 Alexander....61, 106
 Chi
 Hsu Hsien..... 3
 Childers
 Terry.....195
 Chinchanchokchai
 Sydney 3
 Chiu
 Chi-Yue41
 Cho
 Cecile 3
 Eunice Kim...3, 180
 Sunmyoung 3
 Yoon-Na 3
 Young.....146
 Christandl
 Fabian 3
 Chugani
 Sunaina3, 95
 Clarkson
 Joshua.....160
 Claus
 Bart 3
 Clemente
 Sarah127
 Coelho
 Jennifer S.114
 Cole
 Catherine...176, 186
 Compeau
 Larry..... 3
 Connell
 Paul M.33, 173
 Cook, Jr.
 Victor J.110
 Cooke
 Alan D.79
 Cornelis
 Erlinde 3
 Costabile
 Michele.....177
 Cowley
 Elizabeth 3
 Critcher
 Clayton57
 Cronley
 Maria L.3, 88
 Cryder
 Cynthia .3, 187, 188
 Cunha
 Marcus.....185
 Cunha Jr
 Marcus.....1, 3
 Cutright
 Keisha.....64
 Czellar
 Sandor3, 41
- D**
 Dahl
 Darren.....59
 Dalakas
 Vassilis39, 113
 Dalton
 Amy1, 3
 Damato
 Sara46
 Darke
 Peter 98
 Darragh
 Erin..... 46
 Das
 Prakash..... 4, 52
 Davis
 Brennan..... 4, 194
 Derick 4
 De Angelis
 Matteo..... 175
 De Angelis
 Matteo..... 4
 De Angelis
 Matteo..... 177
 De Angelis
 Matteo..... 191
 de Boer
 Cara143, 144
 De Hooge
 Ilona 4, 171
 de Langhe
 Bart....75, 173, 175
 de Ruyter
 Ko 195
 Dellaert
 Benedict 62
 DeMotta
 Yoshiko..... 85
 Deng
 Xiaoyan..... 4
 Denton
 Esta..... 151
 Dewitte
 Siegfried4, 144, 153, 157, 164
 Dhar
 Ravi97, 101, 143, 155, 170
 Dholakia
 Utpal..... 1, 4
 Diecidue
 Enrico 164
 Diehl
 Kristin1, 4, 196
 Dimofte
 Claudiu..4, 180, 181
 Dinsmore
 John 4, 49
 Distefano
 Alessandra 4
 Dogerlioglu Demir
 Kivilcim 4
 Dolansky
 Eric 127
 Dong
 Ping 4, 121
 Driesmans
 Karolien 4, 131
 Drumwright
 Minette..... 36
 Dubois
 David4, 145, 148, 151, 175, 191
 Duclos
 Rod..... 123
 Duff
 Brittany 4, 192
 Duhachek
 Adam 86
 Dunning
 David 57
 Durante
 Kristina 4
 Dzhogleva
 Hristina 4, 87
- E**
 Eastin
 Matthew 45
 Easwar
 Karthikeya 186
 Ebert
 Jane 4
 Eisenstein
 Dr. Eric..... 111
 El Hazzouri
 Mohammed4, 32, 110
 El Jurdi
 Hounaida 4
 Erevelles
 Sunil..... 28
 Erki
 Berna..... 101
 Espinosa
 Linda..... 4, 47
 Etkin
 Jordan..... 159
 Ewing
 Michael 41
- F**
 Faber
 Aida 4
 Fajardo
 Tatiana 4, 91
 Fallu
 Jean-Mathieu 4
 Faraji-Rad
 Ali 4, 29
 Farmer
 R. Adam ... 4, 25, 36
 Fazel
 Hesham 41
 Fedorikhin
 Alexander (Sasha)..4
 Felix
 Reto 4
 Fernandes
 Daniel..... 4, 75
 Ferraro
 Rosellina.... 1, 4, 56
 Ferrier
 Adam 132
 Festjens
 Anouk 4, 164
 Fine
 Ione..... 65
 Fishbach
 Ayelet.....57
 Fitzsimons
 Gavan.... 64, 69, 70
 Florack
 Arnd..... 181
 Forcum
 Lura 4
 Forehand
 Mark 182
 Fouquet
 Anne 47
 Fox
 Craig 76
 Fransen
 Marieke 4
 Fukawa
 Nobuyuki..... 28
 Futrell
 Gary 4
- G**
 Gal
 David 4
 Galak
 Jeff..... 142
 Galinsky
 Adam D.145, 167, 175
 Gallo
 Inigo..... 4, 65
 Galvagno
 Marco..... 4
 Garbinsky
 Emily 90
 Gardner
 Meryl 4, 78
 Garg
 Nitika 4, 90

Gau			
Li-Shiue	4, 133		
Ge			
Xin	43, 152		
Gershoff			
Andrew	77		
Geuens			
Maggie.....	70, 78, 126, 128, 191		
Geyskens			
Kelly.....	87, 195		
Gillespie			
Brian.....	4, 45		
Gilovich			
Thomas	96		
Gino			
Francesca	171		
Godek			
John.....	4		
Godes			
David.....	132		
Goerke			
Ashley	111		
Goldsmith			
Kelly....	64, 155, 170		
Goncalves			
Dilney	4, 29, 190		
Goodman			
Joseph.....	4, 185		
Goodstein			
Ronald	4		
Gorlin			
Margarita.	4, 96, 170		
Goukens			
Caroline	87, 195		
Govind			
Rahul	4		
Grabner-Kräuter			
Sonja	117		
Granleese			
Jacqueline.....	4		
Green			
Alexis	136		
Greenleaf			
Eric.....	4, 161		
Gregory-Smith (nee Ene)			
Diana	4		
Griskevicius			
Vladas.....	1, 4		
Grissemann			
Ursula	4		
Grohmann			
Bianca.....	109, 192		
Grouzet			
Frederick	4		
Grubliauskiene			
Aiste	157		
Gu			
Yangjie	4, 49		
Guevremont			
Amelie	109, 192		
Guha			
Abhijit	5		
Guo			
Xiaoning	5, 49		
Gurhan-Canli			
Zeynep.....	50		
H			
Ha			
Erin Younhee	5, 30, 51		
Hadar			
Liat.....	76		
Hadi			
Rhonda.....	29, 111		
Hahn			
Minhi	38		
Hamerman			
Eric.....	5		
Hamilton			
Mitchell.....	5		
Rebecca.....	1, 5		
Ryan	64, 156		
Hammon			
Larissa.....	44		
Hampel			
Stefan.....	44, 134		
Han			
Sidney Su	5		
Handy			
Todd	99		
Hang			
Haiming	5		
Hardesty			
David	25, 195		
Harmon			
Tracy.....	5		
Hart			
Kendra	5		
Hasford			
Jonathan	36, 126, 195		
Hassay			
Derek	105		
Haubl			
Gerald	69, 103		
Häubl			
Gerald	61		
Häubl			
Gerald	62		
Haws			
Kelly ...	1, 5, 87, 157		
He			
Stephen Xihao.....	5		
Xin	26, 33		
Hedgcock			
William M.	37, 62, 186		
Heilmann			
Tobias	5		
Heinrich			
Daniel	35		
Hellen			
Katarina.....	5		
Herd			
Kelly.....	5		
Herrmann			
Andreas.....	181		
Herzenstein			
Michal.....	5		
Hesapci Sanaktekin			
Ozlem	5		
Heuvinck			
Nico.....	5, 78, 191		
Hildebrand			
Diogo.....	5, 85, 125		
Hippner			
Hajo.....	44		
Hirschman			
Elizabeth	5		
Hita			
Carlos.....	47		
Hoegg			
JoAndrea	1, 5, 71, 147		
Hoffman			
Donna	5, 72, 115		
Holbrook			
Allyson.....	146		
Hong			
Jiewen	1, 5, 31		
Hossain			
Tarique.....	123		
Hsee			
Christopher.....	174		
Hsieh			
Meng-Hua	5, 76		
Hsu			
(Max) Che-Hao	5		
Hu			
Fan	5		
Miao	5, 165, 167		
Huang			
Julie	99		
Xun (Irene)	180		
Yanliu	5		
Hudders			
Liselot	166, 179		
Huh			
Young Eun.....	193		
Hui			
Michael K.	180		
Hung			
Iris W.	1, 5		
Hyodo			
Jamie.....	5, 42		
I			
Inman			
Jeff.....	90		
Irannezhad			
Melika	27		
Irmak			
Caglar.....	5		
Irwin			
Julie	95		
Isaac			
Jayant.....	5		
Mathew S.....	5		
Islam			
Towhidul	137		
Itzkowitz			
Jesse.....	5, 96		
Ivanic			
Aarti.....	5, 177		
J			
J. Carter			
Travis.....	96		
Jaber			
Mazen	5		
Janiszewski			
Chris	76, 160		
Jeffrey			
Jennifer.....	25		
Jia			
He (Michael)	5		
Jayson	164		
Jiang			
Yuwei.....	1, 5, 79		
Zixi	96		
Jiao			
Jenny.....	43		
Jobson M.D.			
Kenneth O.....	5		
Johar			
Gita V.....	98		
John			
Leslie	5		
Johnson			
Heather M.....	5		
Timothy.....	146		
Joiner			
Chris	5		
Joireman			
Jeff.....	131		
Jones			
William	115		
Joo			
Jaewoo	5		
Joordens			
Steve	58		
Jung			
Jae Min.....	123		
K			
Kahn			
Barbara.....	160		
Kalaiganan			
Kartik.....	51		
Kamleitner			
Bernadette.....	5, 101		
Kanetkar			
Vinay	137		
Kang			
Christine... ..	100, 129		
Esther.....	5, 135		

Michael.....7, 137	Mulder	Joseph 7, 26
McFerran	Mark 45, 131	Park
Brent.....1, 7	Mullainathan	C. W.....89
McGraw	Sendhil..... 187	Hyun Young.. 7, 172
A. Peter.....1, 7	Munichor	Hyunhee 8
Mead	Nira 7, 79	Jongwon 80, 162
James.....7, 47, 126	Murphy	Jooyoung 37
Meert	William 24	Kiwan..... 144, 151
Katrien..7, 120, 143	Murray	Parker
Mehta	Kyle B..... 2, 7	Jeffrey 8
Ravi..7, 60, 83, 148	Scott 66	Patrick
Mendenhall	Muzumdar	Vanessa 2, 8
Zack30, 118	Prathamesh 7	Payne
Mercurio	N	John 188
Kathryn.....65	Naderi	Peluso
Messinger	Iman 7	Alessandro Maria177
Paul43, 152	Namkoong	Peracchio
Messner	Jae-Eun 77	Laura.....27
Claude7, 40	Nasr Bechwati	Perez
Meyvis	Nada 7	Dikla 8, 66
Tom1, 7, 67, 156, 172	Nayakankuppam	Peter
Milch	Dhananjay 77	Paula C..... 65
Kerry158	Naylor	Petrochuk
Miller	Rebecca..... 102	Michael 8
Elizabeth G.....1, 7	Nelson	Petroll
Min	Leif D..... 2, 7	Martin 150
Kyeong Sam 7	Nenkov	Pfeiffer
Miniero	Gergana Y..... 2, 7	Bruce E..... 8
Giulia..... 7	Nepomuceno	Pham
Minor	Marcelo 30	Michel Tuan..... 93
Melissa.....160	Nespoli	Phillips Melancon
Mishra	Mark 110	Joanna 113
Arul..... 1, 7, 91	Ng	Philp
Himanshu 1, 7, 91	Jia Yun..... 7	Matthew 109
Mitchell	Nicolao	Pinson
Andrew193	Leonardo 7	Christian 8
Mizerski	Niculescu	Piovesan
Dick..... 7	Mihai 7	Marco..... 171
Mochon	Nielsen	Pirouz
Daniel 7	Jesper..... 182	Dante M.....25
Mogilner	Norton	Plassmann
Cassie 50, 80, 86	David 7, 102	Hilke 2, 8, 182
Mohanty	Michael I.2, 7, 167, 171	Pocheptsova
Praggyan 7	Noseworthy	Anastasiya..... 2, 56
Monga	Theodore J. 32	Pol
Alokparna (Sonia)1, 7, 51	Novak	Gratiana.....89
Ashwani 1, 7, 80	Thomas 72, 115	Pons
Montgomery	Novemsky	Frank..... 105
Nicole 7	Nathan.....101, 152	Poor
Montinari	O	Morgan..... 8
Natalia171	Oakley	Popa
Montoya	James 7	Monica 8, 24
Detra..... 7	Obal	Powers
Moore	Michael 7	Keiko 8
Sarah7, 69	Okyay-Ata	Poynor Lambertson
Morales	Lale 37	Cait 74
Andrea 1, 7, 124	Ordabayeva	Pracejus
Moreau	Nailya 7	John 8
C. Page.....196	Orhun	Prado
Morewedge	Yesim..... 97	Paulo Henrique Müller
Carey90	Ozmen	Michael 8
Morrin	Mujdat..... 7	Puente
Maureen67	P	Rogelio..... 8
Morwitz	Packard	Puligadda
Vicki G.93	Grant..... 7, 100	Sanjay 8
Mosteller	Page	Puntoni
Jill 7	Christine..... 136	Stefano 2, 8, 75, 175
Mourali	Page Winterich	Pyle
Mehdi7, 105	Karen 7	Martin 8
Mourey	Paharia	Q
James A..... 7	Neeru 63	Qian
Mugge	Palermo	Jinghui..... 121
Ruth..... 7	Josephine..... 132	Qiu
Mukesh	Pancer	Pingping 79
Mudra 7	Ethan 7	Quaschnig
Mukherjee	Pandelaere	Simon... 8, 104, 190
Ashesh118	Mario7, 24, 34, 104, 105, 120, 125,	R
Sayantani.....7, 172	143, 148, 166, 190	Radighieri
Mukhopadhyay	Paniculangara	
Anirban31, 80		

Jeff131
 Rajagopal
 Priyali 8
 Raju
 Sekar8, 84
 Ramanathan
 Suresh87
 Ramaswami
 Seshan 8
 Rangan
 Priyamvadha..8, 114
 Rao
 Sanjay164
 Razmdoost
 Kamran 8
 Redden
 Joseph P. ... 142, 196
 Richardson Gosline
 Renée..... 8
 Rick
 Scott8, 187, 188
 Riis
 Jason..... 8
 Rikhi
 Ruchi192
 Rinaldo
 Shannon 8
 Rindfleisch
 Aric178
 Ringberg
 Torsten..... 8
 Robitaille
 Nicole8, 165
 Roggeveen
 Anne.....2, 8
 Rosa
 Jose Antonio..... 8
 Roux
 Caroline 8
 Roy
 Rajat 8
 Rozenkrants
 Bella40
 Rucker
 Derek D.2, 8, 145, 151, 167, 175,
 177
 Rudd
 Melanie.....74
 Rudolph
 Thomas93
 Ruiz
 Salvador8, 116
 Rutledge
 Pamela8, 147
 Ruvio
 Ayalla2, 8, 178
 Dr. Ayalla.....111

S

Saad
 Gad.....30, 130
 Saenger
 Christina..... 8
 Sagara
 Namika166
 Sailors
 John..... 8
 Saini
 Ritesh 8
 Saint Clair
 Julian8, 185
 Salerno
 Anthony8, 76, 88
 Salisbury
 Linda Court 8
 Saluja
 Geetanjali8, 31
 Samper
 Adriana 8
 Sangtani
 Vinita..... 8

Santana
 Shelle 8
 Sarial-Abi
 Gülen 8
 Sayin
 Eda 50
 Schaffner
 Dorothea..... 8, 138
 Schlosser
 Ann 8, 192
 Schmid
 Christian..... 69
 Schrift
 Rom 8
 Schwarz
 Norbert..... 83, 84
 Scopelliti
 Irene 8
 Scott
 Maura..... 47
 Sedlovskaya
 Alexandra 100
 Sela
 Aner.....8, 61, 159
 Sellier
 Anne-Laure..... 156
 Sen
 Sankar .85, 125, 165
 Sengupta
 Jaideep 72, 103
 Seo
 Joon Yong 8
 Sevilla
 Julio8, 194, 196
 Shafir
 Eldar 187
 Shah
 Anuj..... 187
 Avni..... 8
 Shang
 Jen 8
 Shani
 Yaniv 8
 Shapiro
 Stewart 8
 Sharma
 Eesha 8, 56
 Narendra..... 8
 Shavitt
 Sharon..... 146
 Shen
 Hao 2, 8, 72
 Luxi 174
 Shiv
 Baba40, 90, 147, 164, 184
 Shows
 G. David..... 120
 Shrum
 L. J.8, 79, 110, 121, 178
 Shu
 Suzanne..... 188
 Shulman
 Jeffrey 185
 Siegrist
 Michael 117
 Sierra
 Jeremy..... 9
 Silvera
 David H. 2, 9, 44
 Simpson
 Bonnie..... 127
 Sinclair
 Gary..... 9
 Singh
 Surendra N..... 114
 Sinha
 Jayati 9
 Small
 Deborah..... 106
 Smirnov

Kristen..... 43, 152
 Smith
 Karen 9
 Ronn39
 Sobol
 Kamila.....97
 Soman
 Dilip.....83
 Somasundaram
 T. 177
 Somer
 Eli..... 178
 Somervuori
 Outi.....9
 Song
 Sieyeon.....80
 Sood
 Sanjay 65, 76
 Soster
 Robin 9
 Spiller
 Stephen..... 189
 Sprott
 David E. . 9, 40, 181
 Stamatogiannakis
 Antonios 9, 59
 Staton
 Mark 9, 136
 Steffel
 Mary 9, 88
 Stein
 Randy..... 115
 Steinhart
 Yael 9, 66, 70
 Stenstrom
 Eric 30, 130
 Stephen
 Andrew..... 73
 Streicher
 Mathias C..... 120
 Stroulia
 Eleni..... 152
 Sujan
 Harish.....9
 Sundar
 Aparna.....9
 Sundie
 Jill.....9
 Sung
 Yongjun..... 9, 36
 Sussman
 Abigail B. 9, 92
 Sweldens
 Steven .. 9, 158, 171
 Szöcs
 Ilona.....9
T
 T. Reis
 Harry.....96
 Tang
 Chenyng 9, 112
 Tangari
 Andrea.... 9, 39, 115
 Taylor
 Darrin..... 45
 Teichmann
 Karin9
 Teixeira
 Thales..... 149
 Tessitore
 Tina..... 128
 Thomas
 Dominic..... 41
 Manoj. 2, 9, 80, 170
 Thomson
 Matthew ... 9, 25, 74
 Toma
 Boris35
 Torelli
 Carlos2, 9, 145, 146

Tormala
 Zakary2, 9
 Touré-Tillery
 Maferima.....9, 57
 Townsend
 Claudia.....9, 160
 Trask
 Kristin.....9, 135
 Trope
 Yaacov..... 141, 152
 Trudel
 Remi.....9, 103
 Trump
 Rebecca K.9, 66
 Tsai
 Claire.....2, 9
 Tu
 Lingjiang.....116
 Tuk
 Mirjam..... 9
 Tzioti
 Stefanie.....171
U
 Ülkümen
 Gülden2, 9, 163
 Urminsky
 Oleg 9, 97, 158, 173
 Uyttersprot
 Ineke.....126
V
 Valenzuela
 Ana.....85
 Vallen
 Beth.....194
 Van Boven
 Leaf86
 Van de Sompel
 Dieneke...9, 24, 125
 van den Hende
 Ellis 9
 van Horen
 Femke 9
 Van Kerckhove
 Anneleen70
 Vanhouche
 Wouter144
 Vargas
 Patrick 9
 Verlegh
 Peeter.....9, 171
 Vermeir
 Iris24, 70, 78, 104, 125, 126, 190,
 191
 Viola
 Loredana 9
 Vohs
 Kathleen D. .74, 156
 Vosgerau
 Joachim.....193
W
 Wadhwa
 Monica.....158
 Waiguny
 Martin K. J. ...9, 117

Wakslak
 Cheryl 152
 Walker Naylor
 Rebecca..... 2, 9, 74
 Walsh
 Darlene..... 9, 58
 Wan
 Fang.....41, 79, 130
 Wang
 Alice (Jing)..... 176
 Chen60, 98, 99
 Chih-Ping 9, 113
 Jing 2, 9
 Juan 9
 Tingting.....38
 Zhi.....9
 Wänke
 Michaela..... 40
 Wansink
 Brian 194
 Ward
 Brooke 9, 132
 Warlop
 Luk43, 116, 131, 148, 157
 Warmath
 Dee 179
 Watson
 Lisa..... 9
 Weathers
 Danny 31
 Weaver
 Kimberlee 9
 Weber
 Elke 75
 Weiss
 Liad 9, 98
 Werle
 Carolina O.C. 114
 West
 Patricia 74
 Wheeler
 S. Christian . 40, 182
 Whelan
 Jodie 32
 White
 Katherine2, 9, 27, 127, 167
 Tiffany Barnett2, 9, 51, 52
 Wilcox
 Keith9, 73, 163, 165
 Williams
 Elanor ...9, 104, 106
 Larry 115
 Patti 9, 93
 Witmer
 Megan 10
 Wong
 Nancy..... 179
 Wooten
 David 100
 Wright
 Scott 10, 49
 Wu
 Eugenia 69
 Wyer, Jr.
 Robert S.30, 121, 180

X
 Xiao
 Hong 10
 Na..... 10
 Xie
 Guang-Xin .. 10, 166
 Xu
 Jing 96, 155
 Qian 10
Y
 Yang
 Haiyang10, 59, 60, 143
 Lifeng.....186
 Linyun.... 10, 69, 70
 Qian 48
 Yang 142
 Yeh
 Marie..... 10
 Yeung
 Catherine 2, 10
 Yoon
 Carolyn..... 10, 129
 Youn
 Jin..... 144
 Nara 62, 187
 Yucel-Aybat
 Ozge..... 10
Z
 Zaglia
 Melanie E..... 10
 Zarzosa
 Jennifer..... 129
 Zeithammer
 Robert 188
 Zemack-Rugar
 Yael 10, 185
 Zhang
 Charles Y.Z. 10
 Jing 10
 Kuangjie 10, 158
 Meng..... 180
 Y. Charles 83
 Ying 2, 10, 153
 Yinlong 146
 Zhao
 Guangzhi 10
 Min 2, 10, 141
 Shenghui..... 196
 Zheng
 Ruoqiao 48
 Wenwen 48
 Zhou
 Guzhen 10
 Haotian 83
 Rongrong.. 2, 10, 38
 Zhu
 Meng..... 10, 60
 Rui (Juliet)2, 10, 60, 83, 99, 102
 Zidansek
 Manja..... 45
 Zlatevska
 Natalina 10