

2009 SJDM Conference
POSTER ABSTRACTS LISTED BY SESSION
(abstracts are also available at www.sjdm.org)

Session #1 w/ Continental Breakfast (Sunday, 8:30- 10:30am, Hynes Convention Center, 3rd level, Ballrooms A, B, C; attached to Sheraton through walkway)

(1) Your feeling vs. mine: The cognitive meanings of emotion matter

Wang, Long (Northwestern University); Murnighan, J Keith (Northwestern University)

Emotion and cognition are typically viewed as two entities that separately influence each other (Schwarz & Clore, 1996). We argue that people actually have cognitive meanings embedded in their emotions. Thus, rather than separately influencing cognitive processes (Clore, Schwarz, & Conway, 1994; Forgas, 1995), emotion is actually intertwined with cognition. A set of three studies investigated how different meanings of the same type of emotion can affect people's decision making. Our results showed that not only the emotion itself, but also its meanings had an impact on participants' preferences and confidence for their next decision task.

(2) Losing a dime with a satisfied mind: Positive affect accounts for age-related differences in sequential decision making
von Helversen, Bettina (University of Basel); Mata, Rui (Stanford University)

Many choices are made sequentially: choosing Jobs or partners we need to decide to take or reject an option without knowing what the future would bring. In this paper we investigated age effects in a sequential choice task. Older adults performed worse than younger adults, but were equally satisfied and reported even more positive affect. The differences in performance seemed to be due to older adults searching less before accepting a comparatively good offer than younger adults. However, this age effect was mediated by positive mood suggesting that in sequential choice increased positive affect may negatively affect performance.

(3) The role of affect in predicting support for climate change initiatives

Hart, Philip S. (Cornell University); Stedman, Richard (Cornell University); McComas, Katherine (Cornell University)

In response to global climate change, universities have initiated climate change action plans to reduce their carbon footprint. Some plans include projects that may impact surrounding communities. This study uses a mail survey of 2,000 residents near a major New York university to determine how affective responses to climate change, renewable energy, and proposed projects influence community support for project implementation. We focus on the effects of valence and discrete emotions, finding that both play a significant role in predicting community support for the proposed policies.

(4) Money, pleasure and pain: How is risky choice affected by what is at stake?

Pachur, Thorsten (University of Basel, Cognitive and Decision Sciences); Hertwig, Ralph (University of Basel, Cognitive and Decision Sciences)

Participants showed systematic within-individual preference reversals between monetary and non-monetary (e.g., side effects) lottery problems. Fitting prospect theory to both types of choices resulted in a more pronounced weighting function for nonmonetary outcomes, as has previously been suggested. However, two heuristics that ignore probabilities (minimax and the affect heuristic) predicted choices among non-monetary options as well as prospect theory. Evidence from a process tracing experiment also supports probability neglect rather than integration of distorted probabilities and outcomes. Finally, we find no evidence that the difference in people's choices is due to the stronger affect elicited by the non-monetary outcomes.

(5) Positive Affect, Intertemporal Choice, and Levels of Thinking: Increasing Consumers' Willingness to Wait

Pyone, Jin Seok (Cornell University); Isen, Alice M. (Cornell University)

Six studies examined the influence of induced positive affect on consumers' willingness to wait for rewards. Two studies showed that participants in positive affect were more likely than those in neutral affect to choose a mail-in rebate for a larger amount of money over a smaller instant rebate, but only when the reward differences were moderate (not small). Two showed that positive-affect participants do not discount the value of delayed (versus immediate) outcomes as much as controls do (i.e., they show less "present bias"). And two studies examined possible cognitive processes underlying this effect.

(6) The Credit Card Effect on Consumption and Saving

Schneider, Mark (U Conn); Schneider, Jeffrey (Duke University)

There is no explicit economic theory of payment mechanism. Classical economics implicitly assumes that "how you pay" should not affect "how much you pay." In this paper I argue, using theory and evidence from both classical and behavioral economics, that credit cards can have a marked effect on consumption and saving, relative to other payment instruments such as cash or

check. I conclude that the growth in the use of credit cards should be considered as part of the explanation for the recent U.S. consumption boom and the related two-decade decline in the U.S. personal saving rate.

(7) Social values and affective motivations for cooperation: The psychological costs of inequity

Dickert, Stephan (Max Planck Institute for Collective Goods, Bonn); Beckenkamp, Martin (Max Planck Institute for Collective Goods, Bonn)

Research on economic decisions has documented that rational and strategic considerations do not fully explain people's choice behaviour. Emotional reactions to unfair offers are an integral part of perceptions of fairness and constitute part of the psychological costs of inequity. We investigated the roles of social value orientation and anticipated emotions in people's willingness to cooperate in a prisoner's dilemma game. Participants' choices were predicted by their social value orientation, their belief about their partner's choice and anticipated happiness over an equal split of the payoffs. Participants with pro-social (vs. pro-self) value orientations reported greater psychological costs of inequity.

(8) Lateralized Message Framing

McCormick, Michael (The University of North Carolina at Greensboro); McElroy, Todd (Appalachian State University); Seta, John J. (The University of North Carolina at Greensboro)

While research has shown that the left hemisphere is more sensitive to positive information and the right hemisphere is more sensitive to negative information, the extent to which relative hemispheric activation affects the persuasiveness of framed health messages remains unclear. As predicted, when participants were presented with a sunscreen vignette, activation of the left hemisphere resulted in relatively higher behavioral intentions for positively framed messages, while activation of the right hemisphere resulted in marginally higher behavioral intentions for negatively framed messages. These results are discussed in terms of prevention/detection behaviors and the valence hypothesis of hemispheric activation.

(9) Take the best or take the emotionally best? The role of affective information on non compensatory choice

Trujillo, Carlos A. (Universidad de los Andes, School of Management)

Integral affect can be consonant or dissonant with cognitive information of decision targets. This research explores how people solve this cognitive/affective dissonance. Using non compensatory models: Take the best (TTB), Take the emotionally best (TTEB) and combinations of these, it is shown that both TTB and TTEB are good predictors of binary choices, if information and affect are consonant. When there is cognitive/affective dissonance or when decisions are complex, TTEB and a combined model, where TTEB precedes TTB, better predict participant's choices. The combined model (TTEB-TTB) achieves higher discrimination of decision alternatives than the purely affective model (TTEB).

(10) Expanding Beyond the Foundations of Decision Making: Perceived Differences in the Value of Resources

Ramirez, Patrick A. (University of Texas at Arlington); Levine, Daniel S. (University of Texas at Arlington)

A study used 45 volunteers to examine how affect contributes to perceived value of resources. Traditionally, decision researchers assume all resources have the same value. We tested that assumption by comparing responses on two analogous sunk-cost tasks in a within-participant design. One task simulated maintenance of a business; the other simulated maintenance of a pet. A significant difference was found between the tasks on affective self-report. No difference was found on the time participants invest; this may be a ceiling effect because there were only 200 trials. Currently we are testing whether more trials would lead to an investment difference.

(11) Does Green Really Help Being Green? The Role of Color in Processing Fluency

Seo, Joon Yong (University of Utah)

This research examines the role that color plays in the subjective ease with which stimuli can be processed and demonstrates that judgments of the target information are partly based on the conceptual relatedness between the target information and background color. Experiment 1 shows that a green (vs. yellow) background results in more favorable evaluations of recycling tips. Experiment 2 demonstrates that this effect is driven by processing fluency and that the fluency experience is largely affective in nature. Experiment 3 rules out a regulatory fit account and shows that enhanced processing fluency influences attitudes toward the natural environment.

(12) The Link Between Early Visual Processing and the Endowment Effect: Evidence from Event-Related Potentials (ERP)

Ashby, Nathaniel J. S. (University of Oregon); Dickert, Stephan (Max Planck Institute for Research on Collective Goods); McCollough, Andrew (University of Oregon); Vogel, Edward K. (University of Oregon)

A growing body of research suggests that there are strong links between early visual attention, working memory, and later assessments of value. We hypothesize that early visual encoding, storage, and processing of consumer good images is predictive of later monetary valuations of those items. We explore the link between early visual working memory using an established

component known as the contra-lateral delay activity (CDA) with the endowment effect using EEG event-related potentials (ERP). Our results support a model in which early visual processing is modulated by one's reference point (e.g., buyer or seller) and predictive of the WTA/WTP disparity.

(13) Don't say no, just drop the ball: Managing reputation and relationships amidst competing demands
Juillerat, Tina (University of North Carolina)

We are asked for help frequently, often find it difficult to say no, and thus agree to provide help in many undesirable situations. Two experiments examined whether targets of help requests can decline them without hurting their reputations and relationships, as well as how such costs may vary as a function of alternative response strategies and target characteristics. Results indicated that declining to help is often harmful to reputation and relationships. In contrast, initially agreeing to help but then failing to deliver is less harmful to one's image in many situations, particularly when targets have high status or unique expertise.

(14) Everybody Remain Calm: How Anxiety Makes All Advice Look Like Good Advice
Gino, Francesca (University of North Carolina); Wood, Alison (Wharton School); Schweitzer, Maurice (Wharton School)

Is any advice good advice? Across two experiments, we demonstrated that incidental anxiety reduces individuals' ability to discriminate between poor and good advice. We found that people who felt incidental anxiety experienced less self-efficacy and, as a result, were more receptive to advice than were people in a neutral emotional state. Furthermore, people who felt incidental anxiety were more accurate in their judgments than were people in a neutral state when the advice was of good quality. But when the advice was of poor quality, people who felt incidental anxiety were less accurate than were people in a neutral state.

(15) Will you regret making me nervous? How stressful job interviews impact applicant truthfulness.
Kay, Virginia (UNC Chapel Hill); Gino, Francesca (UNC Chapel Hill)

To understand how stressful job interviews affect applicant truthfulness, we are exploring whether job candidates in anxiety-inducing interviews misrepresent their qualifications or whether they provide accurate information to the hiring organization. Participants in our laboratory study receive a description of the job for which they are applying before they undergo either a high- or baseline-anxiety interview. We are testing how interview condition relates to truthfulness by examining (a) decisions to cheat on an assessment of job qualifications outlined in the vacancy notice and (b) decisions to submit a personality assessment skewed towards the description of an ideal candidate.

(16) To broaden, or not to broaden: That is the question
Easwar, Karthikeya (The Ohio State Univ)

Many goals are broken down into smaller, more actionable subgoals. These goal hierarchies impact both the behavioral and affective aspects of goal attainment. Broadening of scope from subordinate to superordinate goals can affect the perception of and affective reactions to failure and success. In an initial study, it is hypothesized that those who fail at a subgoal will use scope broadening to minimize the affective impact of failure, while those who succeed will have no need for this defense mechanism. A second study examines the positive affect reducing effect that forced scope expansion has on those who experience goal success.

(17) Mood Effects on Comparative Judgment
Smarandescu, Laura (Iowa State University); Lacznia, Russell (Iowa State University); Rose, Randall (University of South Carolina)

This research investigates the processes that explain the influence of affect on comparative and non-comparative judgment by comparing the predictions made by the two affective models: mood congruence and affect-as-information model. We find that when presented with a comparative frame individuals scoring high on advertising skepticism were more likely to correct for the perceived effect of the mood on attitudes toward the brand, in line with the affect-as-information model. In contrast, the brand attitudes of individuals scoring low on advertising skepticism followed the direction of the mood induced, consistent with the mood congruence model.

(18) Organizational Neuroscience: Shaping the Decision Landscape
Becker, William J (University of Arizona); Cropanzano, Russell (University of Arizona)

This presentation explores how neuroscience is likely to influence decision making and organizational behavior. We argue that there are two fundamental applications of neuroscience to decision theory. The first, and most obvious, seeks to understand neural mechanisms behind decision making itself. The second, and more subtle, explores how neural processing shapes the decision making landscape. We contend at least three important neural substrates (emotion, moral reasoning, and mirror neurons) play unique roles in these processes. We also address a number of deeper, meta-theoretical questions arising out of neuroscience

and conclude that neuroscience offers powerful new tools that complement traditional research.

(19) Is luck predictive of decision making?

Burns, Bruce D. (University of Sydney); So, Emily (University of Sydney)

People often cite luck post hoc as a factor behind decisions but is luck predictive of decisions? We manipulated how lucky people felt by presenting them with a series of trials for which counterfactuals could be easily generated that reversed their success or failure. We compared these to participants given the same trials and patterns of success or failure, but for which counterfactuals were harder to generate. We found that the counterfactual manipulation increased how lucky people felt and their decisions about different future tasks. An understanding of luck may help explain differences in decision making between individuals and over time.

(20) If it worked for me it will work for everybody: Egocentrism in evaluating techniques and treatments

Bruchmann, Kathryn I. G. (University of Iowa); Windschitl, Paul D. (University of Iowa); Lee, Seon (University of Iowa); McEvoy, Sean (Yale University School of Medicine)

Participants received bogus feedback about their performances and a co-participant's performances on two rounds of a visual discrimination task. During the second round, a quirky audio clip was played. Participants were led to believe that their own performance had improved (or worsened), while their co-participant's performance did the exact opposite. Results showed that when recommending using the audio clip (or not) to peers completing a similar task, participants behaved egocentrically, weighting their own experience more heavily than the counter-information regarding their co-participant. Follow-up studies manipulating the magnitude of the score change and perceived difficulty of the task showed similar results.

(21) Prescriptive lay beliefs about the "how" of judgment and decision making

Huber, Michaela (University of Colorado, Boulder); Park, Bernadette (University of Colorado, Boulder); Van Boven, Leaf (University of Colorado, Boulder)

We present a new theoretical framework that systematically integrates variables that are known to moderate heuristic or systematic processing by proposing a common psychological mechanism. This framework proposes that people have prescriptive lay beliefs about how they think they should make decisions. The underlying psychological mechanism for many moderating variables suggests that people reason about prescriptive lay beliefs and they subsequently correct their judgments and decisions accordingly. Two studies show that people have different prescriptive lay beliefs depending on the decision domain (charitable giving versus romantic relationships) and that prescriptive lay beliefs influence the decision outcome.

(22) Affect and motivational forces underlying charitable behavior: Psychophysiological data

Vastfjall, Daniel (Decision Research); Peters, Ellen (Decision Research); Slovic, Paul (Decision Research)

One hundred seven undergraduates made real donations to one, two or eight identified victims. Physiological measures (facial EMG indexing positive/negative affect and EDA indexing arousal) were measured for each type of victim. We find that donations decrease linearly with increasing number of victims. A similar main effect was obtained for Facial EMG activity indexing positive affect, where activity decreases linearly with increasing number of victims.

(23) The Scope of Time: Insensitivity to the Magnitude of Future (but not Past) Harms

Tennant, Raegan J. (Chicago Booth); Caruso, Eugene M. (Chicago Booth)

People's affective reactions can be more extreme for future events than for past ones (Van Boven & Ashworth, 2007), and such affective reactions often influence moral judgments (Haidt, 2001). Furthermore, research on scope sensitivity demonstrates that people are less sensitive to magnitudes for affect-rich (compared to affect-poor) stimuli (Hsee & Rottenstreich, 2004). The present research shows that people are relatively less sensitive to the scope of immoral behavior when its consequences are in the future rather than the past. This finding suggests that future violations of moral rules may be judged harshly regardless of the magnitude of the consequences.

(24) The effects of observation and intervention on the judgment of causal and correlational relationships

Kelley, Amanda M. (US Army Aeromedical Research Laboratory); Athy, Jeremy R. (US Army Aeromedical Research Laboratory)

Causal judgment has been suggested as a two-stage process; heuristic stage and analytic stage. However, it is unclear how people integrate conflicting correlational and causal information. The present study evaluated detection and judgment of correlational and causal relationships using observation and intervention tasks. The results suggest that participants accurately detected correlational relationships. Observation task characteristics predicted final judgments better than intervention task characteristics. These results show that participants' causal judgments reflected the objective sample correlations in the observation tasks rather than the probabilities in the intervention tasks suggesting that people are more sensitive to objective correlations than underlying

causal probabilities.

(25) Causal structure in quasi-realistic risky decision situations

Baer, Arlette S. (University of Fribourg, Department of Psychology); Huber, Odilo, W. (University of Fribourg, Department of Psychology); Huber, Oswald (University of Fribourg, Department of Psychology)

In quasi-realistic risky decisions, the mental representation of the alternatives is an elementary component of the decision process. We assume that alternatives are represented in form of a simple Mental Causal Model that contains at least an alternative and outcome, connected by a causal relation. The initial representation may be elaborated during the decision process by incorporating additional outcomes, Risk defusing operators or probabilities. We are interested in how different risky causal structures (positive or negative consequences risky) affect information search. 54 subjects decided in three scenarios. In each scenario, both alternatives had one of the different causal structures.

(26) Terrorism, dread risk, and bicycle accidents

Ayton, Peter (City University, London); Murray, Samantha (City University, London); Hampton, James (City University, London)

Su et al (2009) claim, contrary to Gigerenzer (2004; 2006), that car travel did not increase following the 9/11 attacks; moreover fatal traffic accidents only increased in the North East of the USA along with alcohol- or drug-related citations issued in connection with these accidents. Consequently these authors argue that involuntary stress, not volitional decisions mediated by dread risk, explains the increased traffic fatalities. We investigated the effects of the 2005 London tube bombings: underground travel decreased, simultaneously bicycle travel and bicycle accidents increased. We attribute this to dread risk; apparently some Londoners switched from underground travel to less-safe bicycles.

(27) Fear and Loathing in Hollywood

Rosoff, Heather (University of Southern California, CREATE); John, Richard (University of Southern California, Dept of Psychology)

We report on two studies of emotional, cognitive, and projected behavioral responses to a vivid, nearby terrorist attack. In study 1, we used a 2x2 repeated functional measurement design with four separate vignettes describing different dirty bomb attacks on well known locations in the Los Angeles area. In study 2 we investigated the effects of government response and public reaction following a terrorist attack on a passenger airplane using a shoulder fired missile (MANPAD). A 3X3 independent groups functional measurement design in which subjects read a vignette describing a terrorist MANPAD attack on an airplane in flight near LAX.

(28) Difference in Effective Feedback to Improve Risk Understanding in Driving between Ages

Inaba, Midori (University of Electro-Communications); Tanaka, Kenji (University of Electro-Communications)

This study examined effects of feedback techniques to improve the understanding the risks in driving for the elderly using a driving simulator. We compared data before and after the feedback of the risks in their own driving. For the feedback, video reviews of driving from the objective perspective were employed as well as explanation by numerical values and experiences of collision. Results indicated the difference in effective feedback techniques between ages. Along with the previous data, more emotional technique to show the risks may be effective for the risk understanding for the elderly drivers compared to the young drivers.

(29) The Boundaries of Loss Aversion in Decisions under Risk

Ert, Eyal (Harvard); Erev, Ido (Technion)

We review the experimental research of loss aversion in decisions under risk to clarify the mixed evidence associated with this assertion. While some studies suggested no evidence for loss aversion in one-shot choices among mixed gambles, other studies supported loss aversion. The apparent contradiction between the different studies is evaluated with new experiments. We find that the effect of losses increases when the experiment is long and boring (includes no feedback), the payoff magnitude is high, and when the safer option is framed as the status quo. Theoretical implications are discussed.

(30) Preference Reversal in Risky Choices under Time Pressure

Saqib, Najam (Ryerson University); Chan, Eugene (University of Toronto)

We examine the possibility that, under time pressure, risk-seeking individuals adopt risk-averse behaviours whereas risk-averse individuals adopt risk-seeking ones. In Study 1, individuals with positive (negative) affect were risk-seeking (risk-averse) under no time pressure, but adopted risk-averse (risk-seeking) behaviours under time pressure. In Studies 2 and 3, we demonstrate with a real-life wagering task that the salience of negative information mediates the preference reversal. In Study 4, promotion-(prevention-) focused consumers preferred prevention- (promotion-) framed brands under time pressure. The four studies

demonstrate that consequences of time pressure on risky choices in everyday decision-making.

(31) Piecing together effort decisions: Results from a field experiment

Liu, Heidi (Harvard University); Goette, Lorenz (University of Geneva)

This study examines reference-dependent preferences in labor supply as a function of previous earnings. Subjects participated in a two-day task totaling 6 hours, for which they were paid a piece rate. On the first day, subjects were guaranteed a minimum earning; the next day, they were paid a straight piece rate. We hypothesize that day 1's daily minimum affects the reference earnings on day 2. In addition, we measure subjects' risk aversion levels. We vary daily minimum wage and piece-rate in a 2x2 factorial design and test predictions from models of intertemporal substitution of labor and of reference-dependent labor supply.

(32) Experience Trajectories: How are risk strategies different when doing well or poorly?

Decker, Nathaniel K. (University of South Florida); Schneider, Sandra L. (University of South Florida)

Our previous research used simplified agent-based simulations to examine decision strategies for making a series of 36 two-outcome lottery decisions. In this presentation, we use these simulations to capture the exact decision context for each participant and then to analyze actual decisions to see which strategies best match participants' behavior. Participants were in one of three trajectory conditions: those who gain money over time, lose money over time, or vacillate about the same expected value. We investigated whether people's decision strategies focused on contingencies associated with the experience of winning/losing trial-by-trial or on changes in current wealth over time.

(33) Using virtual environments to tailor persuasive appeals: The role of gains and losses given prior decisions to seek or avoid risk

Christensen, John (University of Southern California); Miller, Lynn Carol (University of Southern California); Appleby, Paul Robert (University of Southern California); Read, Stephen J. (University of Southern California); Corsbie-Massay, Charisse (University of Southern California)

Reducing risky sexual decision-making is crucial in curbing HIV infection among men who have sex with men (MSM). However, it is unclear what message frames (i.e., gain, loss, none) should be incorporated into HIV-prevention behavioral interventions. In two studies, using an interactive virtual environment in which MSM made sexual decisions, we found that the most persuasive message frame for optimizing intentions to avoid real-life risk was dependent upon the choice (i.e., risky versus safe) made by the user immediately prior to receiving the persuasive appeal. Thus, tailoring framed messages to the user's choices provides a novel approach to risk reduction.

(34) The social values analysis of understanding self-other differences in decision making

Choi, YoonSun (Brandeis University); Stone, Eric R. (Wake Forest University)

Stone and Allgaier's (2008) social values analysis states that decisions for others often differ from decisions for oneself because the predominant value in a situation plays a greater role in decisions for others than for the self. We tested this account by manipulating perceived risk and convenience levels in public health scenarios and examined decisions for the self, decisions for others, and predictions of others' decisions. As predicted, we found that convenience matters less for decisions for others than for decisions for the self and predictions of others' decisions. In contrast, risk had no differential effect on the decision conditions.

(35) The bracketing breakdown: When and how problem and outcome framing mediates risk tolerance

Moher, Ester (University of Waterloo); Koehler, Derek J. (University of Waterloo)

Previous research has shown that broad bracketing of decision problems enhances risk tolerance. Such bracketing manipulations typically confound bracketing of presented decision problems with bracketing of their outcomes. Using variations of the Gneezy & Potters (1997) task, we show that for repeated identical decisions, it is the broad problem framing rather than the outcome framing that enhances risk tolerance. For nonidentical decisions, by contrast, it is outcome framing rather than problem framing that influences risk tolerance. These results suggest that bracketing may attenuate loss aversion prospectively in the case of identical decisions but retrospectively in the case of nonidentical decisions.

(36) Mood and Reward Sensitivity in Children, Adolescents, and Adults: A Fuzzy-Trace Theory Approach

Estrada, Steven M. (Cornell University); Reyna, Valerie F. (Cornell University); Mills, Britain A. (UT Houston School of Public Health); Pardo, Seth T. (Cornell University)

Recent theories propose that adolescents demonstrate increased sensitivity to reward (relative to children and adults), producing risk-taking. However, under controlled conditions of choice between sure and gamble options in both gain and loss frames, risk-taking declined with age. As reward increased, children took more risks, but adolescents and adults took fewer risks. Gender differences were observed only for children; males were more risk seeking. In addition, positive mood increased gist-based

intuition for all groups, whereas negative mood increased verbatim-based analysis.

(37) The role of expertise in the risk assessment of dynamic weather information

Fu, Wai-Tat (University of Illinois); Park, Heewoong (University of Illinois)

Novice and expert pilots participated in an experiment designed to understand risk assessments in dynamic environments. Results showed that experts made more “no-go” decisions than novices. Novices made more “go” decisions than experts only when inconsistencies were found between machine- and human-generated as well as specific and general reports. Time-based lag-sequential analysis showed that experts would more likely spent more time on a few “key” reports and their decisions influenced by these reports; but novices tended to spend equal amount of time among the reports, and their decisions were found to be more influenced by recency of the information acquired.

(38) Actuarial Risk Assessment, Risk Communication and Involuntary Civil Commitment Decisions

Scurich, Nicholas (University of Southern California)

Research on how actuarial risk assessment results are to be communicated and what effect they have on decision makers has received scarce empirical attention. Using a 2X3 factorial design, this experiment found that decision-makers are sensitive to differential risk probabilities, but that the decision for commitment largely depends on how the risk probability is framed. A derivative of Support Theory (Tversky & Koehler, 1994) is used to explain this violation of extensionality. Contrary to public opinion surveys, analyses of base rate assumptions indicate that decisions makers do not have unrealistic perceptions of mental disorder and violence.

(39) How to Increase the Effectiveness of Health Risk Communication: Effects of Psychological Distance and Message Framing

Lee, Yun (University of Iowa)

What types of appeals are effective to increase the persuasiveness of loss- versus gain-framed health messages? Two experiments address this question by examining the influence of psychological distance on evaluations of loss- versus gain-framed health messages. The results reveal that when the message is loss-framed, participants with high (vs. low) perceived risk prefer how-laden appeals -- an effect that is driven by the negative consequences anticipated from increased uncertainty -- than why-laden appeals. When the message is gain-framed, however, why-laden messages become more appealing for participants with low (vs. high) perceived risk -- an effect that is driven by the positive consequences anticipated from decreased uncertainty.

(40) Longitudinal Effects of Media Messages on Risk Assessments of, Attitudes towards, and Behaviors Combating Climate Change

Bristow, R. Evan (Miami University); Johnson, Joseph G. (Miami University)

Many judgments and decisions in real-world circumstances involve high degrees of risk and uncertainty. Climate change has the potential to affect life worldwide, yet the nature and degree of these effects remains uncertain. Eighty-four participants indicated their attitudes and perceptions in regard to climate change, as well as their propensity to engage in “green” behaviors. These measures were taken both before and after watching videos either supportive or skeptical of climate change. We found significant pre-post differences in our measures, and an interaction with video stance; however, only the effects on attitudes of the skeptical video remained after two weeks.

(41) Lay Perceptions of Energy Consumption

Attari, Shahzeen Z. (Columbia University); DeKay, Michael L. (Ohio State University); Davidson, Cliff I. (Carnegie Mellon University); Bruine de Bruin, Wandl (Carnegie Mellon University)

In a national online survey, 505 participants rated their perceived energy consumption for household, transportation, and recycling behaviors. When asked for the most effective thing they could do to conserve energy, most participants mentioned curtailment rather than efficiency, in contrast to experts’ recommendations. Participants underestimated energy use by a factor of 2.75, with more accurate perceptions among those with pro-environmental attitudes and higher numeracy. Participants also overestimated consumption for low-energy behaviors and underestimated consumption for high-energy behaviors. Behaviors were rated easy to implement, suggesting behavior change is possible if people learn which behaviors are effective.

(42) Risk Preferences in Surrogate Decision Making

Colby, Helen (Rutgers University); Chapman, Gretchen (Rutgers University)

191 Rutgers University undergraduates read one of three versions of a scenario in which they had to invest an inheritance for themselves, their half-sister, or their grandmother. Subjects then had to make 12 choices between low-risk low-return investments and high-risk high-return investments with four levels of variance and three levels of mean return difference. Subjects were significantly more risk averse when investing for their half sister or grandmother than when investing for

themselves. This contradicts previous findings in other domains.

(43) Do the Disposition and House Money Effects Coexist? The differential impact of realized and unrealized gains and losses
Yao, Songyao (Leeds University Business School); Duxbury, Darren (Leeds University Business School); Hudson, Robert (Newcastle University Business School); Kevin, Kevin (Leeds University Business School)

Using data from a stock brokerage, we investigate the impact of prior outcomes on risk taking behavior. We find evidence of the disposition and house money effects contemporaneously coexisting in a single stock market and that a substantial proportion of investors simultaneously exhibit both types of behavior. In differentiating the two effects it is important to distinguish between prior outcomes along two dimensions: whether they relate to unrealized or realized outcomes and whether they have been assessed at the individual stock or the aggregate portfolio level. We also find that the house money effect mediates the disposition effect.

(44) How Intermediate Options Reduce the Endowment Effect
Paolacci, Gabriele (University of Venice); Burson, Katherine (University of Michigan)

Research has shown that the endowment effect is reduced when the tradeoffs between the endowment and an alternative are small. We show that the endowment effect can also be reduced for options with large tradeoffs by presenting an intermediate option. We induce a reference-point shift by merely presenting an intermediate option to participants. Whether or not participants trade their endowment for this intermediate option, their likelihood of accepting the large tradeoff is significantly increased by its presence. We suggest that the intermediate option is mentally adopted, thereby shifting the reference point toward the more extreme option and increasing its attractiveness.

(45) Effect of Face-to-Face Interactions on Choice: The Role of Expressiveness
Liu, Maggie Wenjing (University of Toronto)

This paper examines the role of facial expressiveness on consumer choices in face-to-face versus other types of interactions. Four experiments (three lab experiments and one field study) showed that consumers were more likely to comply with requests under face-to-face interactions than other forms of interactions due to anticipated facial feedback. The basic effect of the paper can be moderated with situational factors such as attention-to-face, the expressiveness, timeliness, and consistency of facial expressions. The paper also showed that anticipated facial feedback, rather than real facial feedback, is the driver of the effect of face-to-face interactions on consumer choices.

(46) A theory of self-control conflict: The pyrrhic motions of reason and passion
Wollbrant, Conny (University of Gothenburg); Myrseth, Kristian (ESMT European School of Management and Technology)

We model self-control conflict as a struggle between an agent and a conflicting visceral influence. Our model examines the joint role of three factors in determining goal pursuit in the face of temptation: (1) goal payoff, (2) temptation strength, and (3) willpower. Our model predicts that the agent's effort in resisting temptation initially rises with the strength of temptation, reaching a maximum, and eventually drops to zero. If the agent underestimates the influence on behavior of anticipated temptation, she will exaggerate the expected value of trying to resist temptation and, therefore, forego pre-commitment when she would have benefited from it.

(47) Unintended consequences of fundraising tactics
Chance, Zoe (Harvard Business School); Norton, Michael (Harvard Business School)

Fundraisers employ various methods to increase donations, commonly using matching funds, seed money, and thank you gifts. Field experiments have shown that matching funds and seed money do increase donations during the time of the fund drive. But few studies have examined the long-term results of any fundraising tactics. In our laboratory experiments, we study the impact in future periods of using seed money, matching funds, and thank you gifts to increase giving in the present period, finding that certain levels of all these commonly used "sweeteners" can decrease giving in the long term.

(48) Context Theory: A Procedural Approach to Individual Choice
Schneider, Mark (U Conn)

We develop a choice-based framework called context theory, which draws from the literatures on dual-system models, procedural models, and similarity relations. Our framework introduces two decision algorithms: The context-outcome heuristic chooses based on similarity relations over contexts and outcomes. The choice-simplicity heuristic selects the option that simplifies the decision process. We identify when each heuristic is likely to be used, and we characterize the corresponding boundary conditions on rational behavior. Context theory explains notable anomalies for decisions under risk, over time, and between products. The evidence suggests that human choices are often based more on similarity judgments than optimization principles.

(49) *The Influence of Attitude Strength on Consideration Set Size: Strong Liking Results in Smaller Consideration Sets*
 Sinha, Jayati (University of Iowa); Nayakankuppam, Dhananjay (University of Iowa); Priester, Joseph R. (University of southern California)

This paper hypothesizes and finds support for the notion that attitude strength guides consideration set inclusion and choice by influencing consideration set size. Three experiments provide support for the idea. In first study participants in the high elaboration-likelihood conditions report smaller consideration set sizes than those in the low-elaboration likelihood condition. The second study provides further evidence that strongly liked alternatives are more likely to be associated with smaller consideration sets than weakly liked alternatives. Third study provides support for the search truncation idea i.e., the attitude strength associated with a retrieved alternative serves as a signal for search truncation.

(50) *I am what I do, not what I have: The centrality of experiential purchases to the self-concept*
 Carter, Travis J (The University of Chicago Booth School of Business); Gilovich, Thomas (Cornell University)

The present research explores one reason why experiential purchases tend to be more satisfying than material possessions (Van Boven & Gilovich, 2003). With support from three studies, we argue that, because experiences persist primarily as memories, they become more a part of our selves than possessions. They are less easily undone or mentally exchanged, as doing so would involve deleting a part of the self. Compared with possessions, people see their experiential purchases as closer to their self-concept, and as a bigger part of their life narrative. These identity concerns mediated the difference in satisfaction between material and experiential purchases.

(51) *Can regulatory orientation explain when the “too much choice” effect occurs?*
 Hafenbraedl, Sebastian (Université de Lausanne); Hoffrage, Ulrich (Université de Lausanne)

According to Higgins (1997), regulatory orientation (promotion focus: ensure hits vs. prevention focus: ensure correct rejections), and manner of engagement in a task, together determine regulatory fit. In this experiment, participants chose from large choice-sets, which implies a manner of engagement that is more compatible with a promotion than with a prevention focus. As a consequence, when faced with large choice sets, people with a prevention focus should experience low regulatory fit. We tested whether such low regulatory fit leads to lower level of engagement and task-enjoyment and therefore to more choice deferral and less satisfaction.

(52) *Consumer Choice Modeling via TOPSIS*
 Bhatt, Suresh K. (University of Manitoba); Bhatnagar, Namita (University of Manitoba); Appadoo, S. S. (University of Manitoba)

Multi-attribute decision-making models are often employed for assessing consumer brand preferences. We empirically contrast Hwang and Yoon's (1981) Technique for Order Performance by Similarity to Ideal Solution methodology from the field of decision sciences and Fishbein's (1963) Multi-Attribute Attitude Model (MAAM) that is widely used in marketing. MAAM assesses brand preferences by combining attribute belief ratings with their importance weights. With TOPSIS, attribute belief ratings are used for calculating brand valuations based on distances from positive and negative ideal solutions. Rank reversals via the two techniques are observed. The advantages of TOPSIS over other brand choice models are then discussed.

(53) *Categorical Thinking and Individuals' Willingness to Pay for Combinations of Items in Different Price Tiers*
 Brough, Aaron R. (Kellogg, Northwestern University); Chernev, Alexander (Kellogg, Northwestern University)

In this research, we examine how individuals evaluate options in different price tiers, focusing on their willingness-to-pay for combinations of such options. Results from three experiments across multiple product categories show that, counter to conventional wisdom, individuals systematically underestimate the value of a combination of products from different price tiers, such that adding an attractive but low-priced item to a high-priced one tends to decrease rather than increase willingness-to-pay for the combination. We attribute the subtraction bias to individuals' tendency to categorize items in terms of expensiveness prior to articulating their willingness-to-pay.

(54) *The Illusion of InAccuracy: When Preferences for Process are Ignored*
 Amit, Adi (The Hebrew University of Jerusalem); Sagiv, Lilach (The Hebrew University of Jerusalem)

Rational decision-makers are expected to choose the alternative that best matches their preferences based on relevant attributes. We suggest that preferences on attributes are merely one type of preferences - for content. We introduce another type - preferences for process, which refers to preferences of how to approach and perform the decision task (i.e., saving effort; maximizing utility; systematic or intuitive base). These preferences are affected by both contextual and personal factors. Taking process-preferences into account redefines optimal decisions as decisions that meet preferences for both content and process preferences, and may help explain the rationale behind seemingly irrational decisions.

(55) The Effect of Choice Overload and Individual Differences on the Enjoyment of Decision-making

Susa, Kyle J. (University of Texas at El Paso); Morales, Robert (University of Texas at El Paso); Morera, Osvaldo (University of Texas at El Paso)

The current study investigated how individual differences moderate the enjoyment of decision-making when people are offered a limited vs. expanded array of choices. Specifically, participants selected one chocolate from an array size of either 6, 10, or 14 options, and subsequently rated how much they enjoyed the experience. Results indicated that increased scores on intuitive decision making (Nygren, 2000) enjoy the selection process, regardless of array size. An interaction between Need for Cognition (Cacioppo, Petty & Kao, 1984) and array size was also found. Need for Cognition is associated with greater enjoyment when there are limited choices.

(56) False past experiences can shape current preferences

Wudarzewski, Amanda (University of Waterloo); Mantonakis, Antonia (Brock University); Clifasefi, Seema L. (University of Washington); Bernstein, Daniel M. (Kwantlen Polytechnic University); Loftus, Elizabeth F. (University of California, Irvine)

Past research has shown that utility can be derived from the anticipation, experience, or the recollection of an event (Elster and Lowenstein 1992). Our present work showed that a positive and a negative false suggestion about a white wine drinking episode, can lead individuals to have a false memory about that experience, which results in a increase (or decrease) in reported preference for the suggested drink. Moreover, a false suggestion that one disliked white wine led to behavioural changes in consumption in line with the false belief. Thus, we propose a fourth source of utility, utility derived from false memory.

(57) Opportunity Cost Neglect and Consideration: The Role of Constraints

Spiller, Stephen A. (Duke University)

Whether or not individuals consider their opportunity costs is an important question. Individuals who neglect their opportunity costs are sensitive only to their outlay costs, whereas those who consider their opportunity costs are sensitive to their foregone alternatives. Recent research suggests that consumers neglect their opportunity costs altogether when making purchases. The present research demonstrates that individuals do consider their opportunity costs when faced with salient constraints, be they real liquidity constraints or constrained mental accounts. I posit that accessible planned expenditures and earmarked resources contribute to opportunity cost consideration and that their effects are amplified by constraints.

(58) The Effects of Regulatory Fit with a Goal and With a Goal-Object Benefit on Purchase Decisions

Brown, Vincent (University of London)

Regulatory fit with a goal is synonymous with the importance of the goal to an individual. The theory is silent on the interrelationship between fit with a benefit received from an object that helps in the achievement of the goal, and fit with the goal. It is plausible that if the level of benefit provided by the object is not high enough relative to a reference level, an individual may no longer desire the object even though fit may still be experienced with the goal. This paper will present the results of an investigation into this phenomenon on purchase behaviour.

(59) Communicating statistics: The interpretation of common language effect sizes

Nolan, Kevin P. (Bowling Green State University); Dalal, Dev K. (Bowling Green State University); Brooks, Margaret E. (Bowling Green State University); Yankelevich, Maya (Bowling Green State University)

The common language effect size indicator (CLES) and the binomial effect size display (BESD) are designed to simplify statistical information by using more accessible language and presentation than the Pearson Correlation coefficient (r); however, little is known about how information presentation actually affects perceptions of effect size. Consumer products were described in scenarios that manipulated effect size indicator and magnitude. Participants indicated how easy it was to understand the product information, how effective they thought the product was, and amount they would pay for the product. Findings shed light on how effect size presentation influences understanding and perception of value.

(60) Naturals and Strivers: Quantifying the Costs of Preferences and Beliefs About Sources of Achievement

Tsay, Chia-Jung (Harvard University); Banaji, Mahzarin (Harvard University)

In considering talent, what do we privilege, innate skill or hard work? In our previous work on the judgment of talent, we demonstrate a dissociation between an explicit endorsement of hard work ("strivers") and the actual preference for innate talent ("naturals"), or a mismatch between expected and actual levels of performance, depending on the apparent source of achievement. In our current work, through conjoint analysis, we quantified the costs of the naturalness bias and showed that experts were more willing to trade off better-qualified individuals in favor of the natural performer.

(61) Is What You Feel What They See? The Relationship between Fluency and Identity Signaling

Matherly, Ted (University of Maryland); Pocheptsova, Anastasiya (University of Maryland)

People frequently use products to express their identity and infer identities of others. In this paper, building on the body of research on subjective experiences, we propose that people will use feelings of ease or difficulty of information processing when choosing products to signal their identity, as well as to infer identity signaling motives in others. Across a series of studies we find that low fluency choices are seen as more effective signals of identity, compared to high fluency choices. This connection between fluency and identity signaling was observed across impression management and group affiliation motives.

(62) *The Big Cost of Small Problems*

Brigden, Neil (University of Alberta); Haubl, Gerald (University of Alberta)

As products age, many go through a state of reduced functionality where they still work, but exhibit limitations that impair user experience. The user must decide whether to repair the product or put up with reduced functionality. Our experiments demonstrate that relatively less severe problems can ironically lead to greater losses in productivity and/or enjoyment over time. This counter-intuitive relationship between problem magnitude and quality of experience exists because consumers tend to repair major problems immediately, but allow more minor problems to persist. We examine psychological mechanisms underlying consumers' failure to repair minor problems that should normatively be repaired.

(63) *Does a larger coupon feel more valuable? How Medium Size Affects Perceived Value*

Yang, Adelle (Shanghai Jiaotong University); Hsee, Christopher (University of Chicago Booth School of Business)

The present research hypothesizes larger coupons to be more valuable and less likely to be redeemed, controlling for their objective value. A series of studies support this hypothesis and also show that a large-sized ten dollar coupon combined with a small-sized five dollar coupon is less likely to be spent than a small-sized ten dollar coupon combined with a large-sized ten dollar coupon. This research yields theoretical implication on the relationship between physical size and perception of value and practical implication on coupon design.

(64) *Predicting inferences and confidence in inferences: Recognition heuristic vs. its new rival, mean-variance model*

Simonyan, Yvetta (London Business School); Goldstein, Daniel G. (London Business School)

This research investigates whether a new model, mean-variance model, gaining insight into information beyond recognition, can be proposed as an alternative to simple recognition-based heuristics. It looks at what people believe about recognized vs. unrecognized objects and how these objects are perceived in terms of mean and variance of objects' criterion, expressed as belief distributions and captured by point estimates and confidence intervals, when information about the criterion is not immediately accessible. Are inference predictions made using binary and continuous measures of recognition more accurate than predictions made by the mean-variance model, using the afore-mentioned mean and variance data?

(65) *Subgoals Promote Monetary Savings Behavior*

Colby, Helen (Rutgers University); Chapman, Gretchen (Rutgers University)

367 undergraduates read four scenarios in which they were planning to go out to dinner with friends, and were also saving for a new item (Wii, iPod, cruise, shoes). We manipulated whether the scenario contained a specific weekly savings subgoal, or only a whole-item savings goal. Subjects rated their likelihood of forgoing dinner in favor of saving on a 0-100% scale. Saving the money should allow subjects to close a mental account in the subgoal scenarios, making saving more appealing. The presence of a subgoal did significantly increase the likelihood of forgoing dinner in all scenarios (all $p < .01$).

(66) *Culture and Dynamic Decision Making: Testing a Model in Five Countries*

Güss, C. Dominik (University of North Florida); Tuason, M. Teresa (University of North Florida); Desrosier, Rebecca (University of North Florida)

Research on dynamic decision making (DDM) using microworlds has often focused on individual differences such as intelligence to explain performance. Cross-cultural studies on decision making have often focused on describing differences rather than explaining them. We tested a model postulating that cultural values influence DDM strategies which in turn influence performance controlling for intelligence. Participants were 535 students in Brazil, India, Germany, Philippines, and the United States. They had to protect cities from fires and prevent goods from perishing in two microworlds. Fit indexes show reasonable fit of the theoretical models. Results highlight the influence of culture on DDM.

(67) *Earthly sins and heavenly rewards: The effect of religious beliefs on end-of-life decisions*

Ward, Adrian F. (Harvard University); Wegner, Daniel M. (Harvard University)

Is it better to be in a hospital bed or on streets of gold? Religious beliefs provide the faithful with two opposing decisional stances regarding this question: one rooted in official church dogma (that is, a moral stance), the other in an emphasis on the value of an afterlife (that is, a heavenly rewards stance). Two studies show that these decisional stances affect religious people's

end-of-life decisions in different ways; the moral stance leads to greater endorsement of life-prolonging measures, whereas the heavenly rewards stance leads to a marked willingness to exchange one's present life for the life to come.

(68) Do East-Asians and Westerners Think Alike? Evidence from Probability Judgment

Wu, Shali (Tsinghua University); Wu, George (Chicago Booth); Keysar, Boaz (University of Chicago)

This research challenges Griffin & Tversky's (1992) claim that people universally under-use weight and over-use strength information when making judgments. I argue that weight information often functions as context, and hence the process of evaluating evidence will be culturally influenced. The findings from Bayesian probability judgments on Americans and Chinese participants show that in the control condition Americans under-use the base-rate, while Chinese do not. In the experimental condition, however, when the base rate is made focal, Americans perform much better while Chinese are unaffected. This shows Americans under-use the base rate information only when it functions as background information.

(69) Discussion of Shared and Unshared Information in Decision Making Groups: A Cultural Perspective

Feng, Y. N. (The University of Leeds); Bown, N. J. (The University of Leeds); Allinson, C. W. (The University of Leeds); Maule, A. J. (The University of Leeds)

The impact of culture on the information sharing process in decision-making groups was examined. Four-person British and Chinese groups decided which of two hypothetical candidates would be recruited for a lecturer position. Some of the information about each candidate was provided to all group members (shared information), whereas the remainder was randomly divided (unshared information). Although no significant difference was found in the total amount of unshared information exchange, the way in which unshared information was exchanged was different-Chinese participants were more likely to use an indirect way of communication while British participants used a more direct way.

(70) The Norm of Self-Sacrifice

Sachdeva, Sonya (Northwestern University); Iliev, Rumen (Northwestern University); Medin, Douglas (Northwestern University)

Sacrificing personal benefit in order to help a larger group is a key characteristic of moral behavior. However, large sacrifices such as sacrificing oneself may be seen as an even greater moral act than particularly in some cultures where the norm of self-sacrifice is highly salient. In this field experiment, we found that rural Indians were more approving of self-sacrifice than urban Indians or Americans. More importantly, self-sacrifice was only acceptable for noble causes and in mundane cases, weak sacrifices were preferred demonstrating the symbolic nature of self-sacrifice. Urban Indians and Americans always thought that self-sacrifice was worse than other forms of sacrifice.

(71) Cheaters Never Win? Affective Consequences of Unethical Behavior

Nicole Ruedy (University of Pennsylvania); Maurice Schweitzer (University of Pennsylvania)

Affective responses play an important role in ethical decision making. Generally, unethical decisions have been associated with negative affective responses, such as guilt, shame, and anxiety, which are thought to deter future unethical behavior. In contrast, the relationship between positive affect and unethical behavior has been largely overlooked. In this work, we suggest that under certain circumstances, unethical behavior can produce psychological rewards. In two laboratory studies, we show that participants demonstrated a positive (and no negative) affective response after an ethical violation. Our results suggest that the relationship of positive affect and unethical behavior merits further attention.

(72) When Cash Matters: The Effect of Fungibility on Honesty

Smith, Joshua (The Ohio State University); Nygren, Thomas (The Ohio State University)

This study sought to explore the effects of fungibility on honesty. Subjects completed a short arithmetic test and were offered incentives based upon performance, with each group receiving a reward of different fungibility. It was hypothesized that an inverse relationship would be found between fungibility and cheating.

(73) Finding balance on the moral scale: The effect of forgiveness on dishonest behavior

Ayal, Shahr (Duke University); Dan Ariely (Duke University)

People face ethical choices on a daily basis. In some cases, they know that if they succumb to dishonest behavior, forgiveness may be available to them. Do the expectation of being forgiven and forgiveness itself influence an individual's likelihood to engage in unethical behavior? This paper addresses this question by examining the effects of self reflection on individuals' dishonest behavior. Across three studies, we find that when individuals expect to be forgiven for their unethical acts, they are more likely to behave dishonestly before rather than after reflection on their own sins, and this effect was diminished with time.

(74) Dishonest Deed, Clear Conscience: Self-Preservation through Moral Disengagement and Motivated Forgetting
Shu, Lisa (Harvard University); Bazerman, Max (Harvard University)

Using hypothetical scenarios (Studies 1 and 2) and real tasks involving the opportunity to cheat (Studies 3 and 4), we find that dishonest behavior increased moral disengagement and motivated forgetting of moral rules. Such changes did not occur in the case of honest behavior or consideration of the behavior of others. In addition, increasing moral saliency by having participants read or sign an honor code significantly reduced or eliminated unethical behavior. While dishonest behavior motivated moral leniency and led to strategic forgetting of moral rules, honest behavior motivated moral stringency and diligent recollection of moral rules.

(75) Preferences for Equality vs. Efficiency
Carabelli, Evan (University of Pennsylvania); Dana, Jason (University of Pennsylvania)

At the heart of fair distributions, e.g. of taxes, healthcare and education, lies a tradeoff between equality and efficiency. Experimental participants divided a good (money) among two anonymous others by allocating them tokens with varying exchange rates over ten repeated choices. Participants strongly favored equality, with a small minority willing to give all tokens to one person even when that person could exchange the tokens for 16 times as much money. This led to a much smaller mean payment among participants than efficient distribution (\$8 vs. \$13) but also created less variance in the payments ($sd = \$3.66$ vs. \$7).

(76) The Effect of Attribute Framing on Justice Judgments
Gamliel, Eyal (Ruppin Academic Center); Peer, Eyal (Hebrew University of Jerusalem)

Past research examined people's justice judgments regarding resource allocation situations using positive manner (e.g., deliver good to some) and neglected the complementary negative manner (withhold good from the others). This study shows that presenting resource allocation situations in a positive manner resulted in more favorable justice judgments regarding non-egalitarian allocation principles (merit, tenure, need) relative to presenting the same situations in a negative manner. Such attribute framing effect was not found regarding the equality principle. Consistent findings were found regarding organizations allocating positions, equipment, duties and health care resources. Implications for policy, research and the public are discussed.

(77) Influences on the Ethical Reasoning of Tax Practitioners: Preliminary Results on Profile, Context and Socialisation
Doyle, Elaine (Kemmy Business School, University of Limerick); Frecknall Hughes, Jane (The Open University Business School); Summers, Barbara (Leeds University Business School)

Dilemmas involving tax issues were identified as posing the most difficult ethical/moral problems by the American Institute of Certified Public Accountants, but there is little research on how tax dilemmas are approached. We investigate this, using a research instrument based on the defining issues test (DIT) to compare practitioners and lay-people. We find that practitioners are not different from lay-people in a social context. In the tax context, moral reasoning is affected for practitioners only, indicating that training/socialisation are likely drivers of behaviour. Preliminary analysis finds a potential difference between public and private sector practitioners which supports this view.

(78) Cheap saints or blatant sinners? The cost of lying for (almost) nothing
Shalvi, Shaul (University of Amsterdam); Handgraaf, Michel J. J. (University of Amsterdam); de Dreu, Carsten K.W. (University of Amsterdam)

To maintain an honest self-concept people avoid lying to the maximum extent possible. Employing an anonymous die under cup paradigm, we instructed participants to report the outcome of a private die throw, giving them an option to lie to increase payoff. By providing participants with alternatives to throwing the die we manipulated the number of options that were available to increase payoff. Results of two experiments show that people are willing to lie for a substantive gain, but refrain from entering a situation if they know they would have to choose between lying blatantly and lying for a minimal amount.

(79) Telling tales: The effect of narrative creation on decision-making with data
Krumme, Coco (MIT)

Stories can serve to frame inquiry and to aid recollection of unconnected events. At the same time, a good story has been known to get in the way of "changing one's mind" about a decision. The present research considers the role of narrative in bolstering the apparent connectedness of independent events: here, in the context of financial decisions. The results of two stock-selection and investing experiments show that when information is linked with a narrative explanation, investors make poorer decisions, and are less likely to change their pattern of behavior based on new information, compared to a narrative-free case.

(80) The Effects of Mastery on Subjective Utility
Scopelliti, Irene (Bocconi University); Loewenstein, George (Carnegie Mellon University)

The pleasure derived from mastery of a task is an important motive driving human behavior. Although it was treated by Bentham as an ingredient of utility, mastery has not played a role in current models of decision making. This paper presents results of an experiment that examines the impact of mastery on persistence at, and enjoyment of, an activity. We find that people spend more time on, and enjoy more, activities they master than activities they do not master, even if the low mastery task yields higher monetary payoffs.

(81) Sex Differences in the Effects of Anger on Financial Risk-Taking

Litvak, Paul M. (Carnegie Mellon University); Lerner, Jennifer S. (Harvard University)

Prior research finds that incidental anger leads people to perceive less risk (for review, see Lerner & Tiedens, 2006). The present experiments examined the hypothesis that the effects of anger on actual risk taking would differ for males and anger. Risk taking was measured by the Balloon Analogue Risk Task (Lejuez et al., 2002). Results support the hypothesis. Specifically, anger increases the risk-taking of men, but decreases the risk-taking of women. These results were not driven by any differences in the magnitude of self-reported anger experience. Rather, it appears that males and females differ in how anger impacts risk-taking behavior.

(82) It's more money that I have, but I have to go one more: Risky decision making in: 'Deal or No Deal'

Laroque, Ninekema (University of North Florida); Desrosier, Rebecca (University of North Florida); Güss, C. Dominik (University of North Florida)

Extending laboratory research, risky decision making was investigated in the show "Deal or No Deal" focusing on a process analysis and on individual difference variables. Video tapes of the show were analyzed qualitatively and quantitatively. Results showed illusion of control and anxiety as determinants of risky decisions, as well as social influences primarily by the family on the decisions made. Following previous research on sex differences in risky decisions, men and women differed in several decision characteristics, such as time. Results highlight social influences and individual differences in risky financial decisions made under time pressure in a public context.

(83) Effects of Identity on Surgical Risk-Taking: Attitudes, Risk Perceptions and Intentions

Pardo, Seth T. (Cornell University); Reyna, Valerie F. (Cornell University)

This study tested whether attitudes, intentions, identity, and risk perceptions determined surgical risk taking. Decision vignettes were identical except for reason for surgery. Choice options presented equal decision outcome probabilities across two framing conditions (gain, loss). Results showed that although two identity factors (feminine self-concept and transgender identity) predicted risk-aversion for both surgical decision vignettes, intentions to pursue body modification surgery predicted increased risk-taking in the transsexual vignette only. Thus, respondents sufficiently motivated to have body modification surgeries demonstrated greater willingness to take risks. Motivation may be a stronger predictor of surgical risks than attitudes, identity, or risk perceptions.

(84) Understanding How Mental Accounting Guides Choices Between Work and Home

Paddock, E. Layne (Singapore Management University); Rothbard, Nancy (University of Pennsylvania)

We introduce a measure of mental accounting (MA) of time and money in both work and home domains based on Soman (2001). In a sample of nearly 400 employees working in various jobs across industries, we explore how individuals' use of MA at work and home relates to two sets of individual differences: work-family (e.g., identification with roles, preferences for work-life segmentation) and cognitive (e.g., cognitive overload, cognitive complexity). In a second sample of 114 employees we investigate individuals' use of MA to guide their time allocation choices and how MA relates to self- and other-rated home and work attitudes.

(85) The Influence of Goals on Dynamic Decision Making

Weinhardt, Justin (Ohio University); Vancouver, Jeff (Ohio University); Gonzalez Vallejo, Claudia (Ohio University); Harman, Jason (Ohio University)

Using a controlled laboratory experiment, we replicated and extended the findings from a number of field studies investigating the lack of intertemporal substitution in labor (Camerer et al., 1997). Our results are in accordance with previous field studies showing that individuals who use income goals work less when they are making more money and work more when they are making less money. The current study also found that time goals result in more optimal behavior and informing individuals about the amount of time they spend working increases the probability of optimally intertemporally substituting their labor.

(86) Thinking of others' behavior makes you more generous: The imaginary peer effect

Wang, Yitong (University of California, Irvine); Keller, L. Robin (University of California, Irvine)

We examine how thinking of other people's charitable behavior affects people's willingness to donate to charity. We found that asking subjects to think about "How much your friend is willing to donate" or "Is your friend willing to donate?" will increase the amount they finally donate. We propose that thinking about a friend's charitable behavior will trigger donors to put more weight on a higher level of construal of donation as good for the society, rather than a lower construal level - giving up some money, which will lead people to donate more. Alternative explanations are also discussed and tested.

(87) *Executive functions at work: The impact of Individual Differences in Cognitive Control on Managerial Decision-Making*
Laureiro Martinez, Daniella (Bocconi University); Brusoni, Stefano (Bocconi University); Canessa, Nicola (San Raffaele University); Cappa, Stefano (San Raffaele University); Zollo, Maurizio (Bocconi University); Alemanno, Federica

A major source of errors in managerial decision-making is that individuals tend to respond to stimuli in a homogeneous way, failing to adapt their cognitive and behavioral patterns to the context. In this paper, we show how differences in individuals' executive functions -such as sustained attention, working-memory, and planning and generativity- influence adaptive managerial decision-making. We argue that managers' cognitive control might be fundamental for effective decision-making and consequently an important determinant of the organizational ability to learn and adapt to environmental changes. We derive managerial implications and suggest alternatives that education programs could follow to enhance managers' cognitive control.

(88) *The Effect of Group Deliberation on the Endowment Effect*
Blumenthal, Jeremy A. (Syracuse University College of Law)

The "endowment effect" (EE) has been documented repeatedly at the individual level: individuals demand a significantly higher price to sell a good that they own than they offer to buy it if they do not own it. However, only one previous study examines the EE at the group level, despite implications ranging from attorney-client and international negotiation to land use decisions to legislative and corporate decision-making. Questions: (1) Does group deliberation affect individual demonstration of the EE? (2) Do groups exhibit the EE? Findings: (1) deliberation exacerbates individual demonstration of the EE; (2) groups exhibit the effect. Implications are addressed.

(89) *Social Acceptance Reduces Egocentric Perception of Fairness in Resource Allocation*
Zhang, Liqing (Peking University); Baumeister, Roy (Florida State University)

In two experiments, social acceptance or rejection was manipulated by feedback after participants took part in a group discussion. All participants were then asked to distribute fairly a fixed amount of money between themselves and an anonymous individual out of their group. In Experiment 1, the compensation was provided because participants endured some noise in a reaction time game. In Experiment 2, participants were asked to divide a reward because they and another person completed a task together. In both experiments, social acceptance reduced the amount of money that participants, especially male participants, allocated to themselves.

(90) *Punishment of Groups for the Actions of Group Members*
Sorenson, Clare M. (The Ohio State University)

In some situations (e.g. school, military), an entire group of people may be penalized for the actions of a subset. In three studies, we demonstrate that participants are willing to punish a group for the actions of one member, that such punishment was insensitive to between-subjects variation in the magnitude of the violation, and that punishment was sensitive to within-subjects variation in the magnitude of the violation and the number of violators. On average, punishment of an entire group was similar to that of punishment of an individual, but group punishment displayed more variability

(91) *Resisting the Temptation to Retaliate: Self-Control in Overcoming Barriers to Cooperation*
Sheldon, Oliver J (University of Chicago); Fishbach, Ayelet (University of Chicago)

This article provides a self-control analysis of mixed-motive interactions, including 2-person social dilemmas and bargaining encounters. We propose that mixed-motive interactions pose a self-control conflict between pursuing immediate benefits through competition and pursuing long-term benefits through cooperation. As such, anticipating high (vs. low) barriers to successful outcomes triggers counteractive self-control operations that increase cooperation, so long as people believe that by doing so they can influence others to reciprocate.

(92) *Escalation of commitment and valuation*
Ting, Hsueh (University of Maryland, College Park); Wallsten, Thomas (University of Maryland, College Park)

Research on escalation of commitment has focused primarily on individuals' reluctances to withdraw from a course of action in the past. However, escalation could also come from failure to evaluate the alternatives to the committed course of action. Our results showed that individuals attribute more value to the chosen course as they get closer to it, and simultaneously devalue the alternative. The value difference captures the individuals' tendencies to escalate in their chosen course of action. The pattern

provides a new interpretation for escalation when multiple outcomes are presented.

(93) Clutch performance and clutch illusion

Barkan, Rachel (Glazer School of Business, Ben-Gurion University); Solomonov, Yosef (Glazer School of Business, Ben-Gurion University); Ariely, Dan (Fuqua School of Business, Duke University)

Acute stress, pressure and overload generally lead to decreased performance. Exceptional individuals however seem to thrive under pressure and exhibit extraordinary ability that wins critical situations. In business, politics or sports, these stars are admired and heavily rewarded for their unique talent. We examine the case of basketball, where clutch players are believed to determine the fate of close and critical games. Two studies show that although clutch players make more points at clutch moments, their assumed special talent is an illusion driven by expectations. A third study shows that basketball experts fall for the illusion they help create.

(94) You are What We Eat: Normative Influences on Individual Eating Behavior

Hunger, Jeffrey M. (California State University-Fullerton); Howland, Maryhope (University of Minnesota); Mann, Traci L. (University of Minnesota)

Eating habits have been found to be strongly influenced by group norms, but there is a need for psychological research into the development and stability of such norms among close friends. Using a laboratory design, we first instilled an eating norm (i.e., eating vegetables) in an existing group of friends (T1), and then separated the friends to see if the norm persisted when eating alone (T2). The presence of a norm predicted eating in the group setting (T1) but did not predict eating while alone (T2), indicating no norm persistence. Implications for the promotion of healthy eating choices is discussed.

(95) Individual Differences and Susceptibility to Context Effects in an Organizational Recruitment Setting

Diab, Dalia L. (Bowling Green State University); Alexander, Katherine N. (Bowling Green State University); Daniels, Michael A. (Bowling Green State University); Pui, Shuang-Yueh (Bowling Green State University); Brooks, Margaret E. (Bowling Green State University)

Little research has looked at the influence of individual differences on susceptibility to context effects. A recent study showed that the choice deferral of indecisive people was not affected by the presence of risk (Patalano & Wengrovitz, 2007). The main purpose of the current study was to extend this line of research by investigating whether indecisives might be more resistant to several commonly-studied context effects than decisives. We looked at the effects of indecisiveness and other individual differences on decision behavior in an organizational recruitment setting. Results inform research on individual differences in decision making.

(96) Effects of Imperfect Information and Risk on Job Choice Behavior of Indecisives and Maximizers

Daniels, Michael A. (Bowling Green State University); Pui, Shuang-Yueh (Bowling Green State University); Diab, Dalia L. (Bowling Green State University); Alexander, Katherine N. (Bowling Green State University); Brooks, Margaret E. (Bowling Green State University)

This experiment investigated effects of imperfect (i.e., missing and negative) information and risk of lost opportunity on job choice. Indecisiveness and maximizing tendency were examined as moderators of these relationships. Job descriptions containing imperfect information were presented one-at-a-time; participants could either select or reject the job, or they could defer the decision until they had cycled through the remaining options. Half of the participants were told a limited number of positions were available, so those deferring decision on an option risked losing the opportunity to choose that job. This study extends our understanding of how individual differences affect decision-making behavior.

(97) The Effect of Multiple Views and Perspective Taking on Social Tuning

Skorinko, Jeanine (WPI); DiGiovanni, Craig (WPI); Whitchurch, Erin (University of Virginia); Sinclair, Stacey (University of Virginia)

This experiment investigated whether perspective taking and a target's viewpoint influenced social tuning. Ninety-five undergraduates learned that the experimenter held egalitarian views (via an "Eracism" tshirt), but that the experimenter either expected them to be similar (egalitarian) or different (prejudiced). Participants then unscrambled either neutral sentences or sentences that primed them to perspective take. Results showed a significant interaction between the expected viewpoint and perspective taking. Perspective-takers were more likely to align their judgments and tune towards the experimenter's verbalized expectation (both egalitarian and prejudiced expectations) than non-perspective-takers.

(98) Me and You vs. The World: The Effects of Affiliative Motivation and Group Membership on Social Tuning

Spear, Sarah (WPI); Selkow, Maia (St. Olaf's College); Skorinko, Jeanine (WPI); Lun, Janetta (University of Maryland); Sinclair, Stacey (Princeton University)

This experiment investigated whether affiliative motivation and group membership influenced social tuning. Seventy-nine participants believed they would interact with a partner who was part of their in-group or out-group (groups membership manipulation) for either five minutes or thirty minutes (affiliative motivation condition). A significant interaction between affiliative motivation and group membership emerged. Those with an in-group partner aligned their judgments and tuned more in the high affiliative motivation than low affiliative motivation condition. No tuning occurred with out-group members, regardless of affiliative motivation. Thus, group membership and affiliative motivation are important to judgments, interpersonal decisions, and social tuning.

(99) Information distortion in self-other decision making
Polman, Evan (Cornell University)

In both organizational and social arenas, individuals make decisions for themselves and for other individuals. But research in decision making has provided little input into how these decisions are psychologically different. In this paper, I find that the extent and ilk of information distortion varies according to whether individuals make their own decisions or others' decisions. In particular, individuals who choose for their own behalves demonstrate more postdecisional distortion (i.e., cognitive dissonance), yet less predecisional distortion than individuals who choose for others' behalves. These findings suggest an irony of self-other decision making: it produces both more and less information distortion.

(100) Querying the Group Mind: Applying Query Theory to Group Discussions
Smith, Juliana A. (Columbia University); Weber, Elke U. (Columbia University)

Query Theory assumes decision makers construct preferences by consulting memory for thoughts about choice alternatives. Using accelerate vs. delay discounting scenarios, we extended this explanation to the "group mind". Discounting in delay was (positively) predicted by the number of "now" thoughts, while discounting in acceleration was (negatively) predicted by the number of "later" thoughts. Thoughts for the default option predicted choice, even though thought frequency did not differ between conditions, pointing to an attentional effect. For individual decisions, "now" and "later" thoughts clustered in different orders for the two conditions, a result (not surprisingly) not found for the group discussions.

(101) Influence of Social Norms and Transition Zones on Decision Making in Dyads
Mukherjee, Moumita (University of South Florida); Decker, Nathaniel K. (University of South Florida); Schneider, Sandra L. (University of South Florida)

Our previous work on two-outcome lottery decisions has demonstrated that dyads working together tend to be more risk averse than individuals working alone. In this presentation, we summarize qualitative analyses of participants' responses to questions regarding (a) perceived quality of decisions made, (b) which lotteries were hardest to agree on, and (c) how decisions would have been different if working alone. Response coding suggests that individuals within dyads may be more risk averse due to social norms related to perceived responsibility for another's well-being and experienced conflict in gain-loss transition zones.

(102) Social Influence Processes in Group Decision Errors
Tindale, R. Scott (Loyola University Chicago); Starkel, Rebecca (Loyola University Chicago); Jacobs, Elizabeth (Loyola University Chicago)

We studied the role of social influence in group decision situations where individual decision heuristics were prevalent. Using conjunctive fallacy and base rate fallacy problems, we provided participants with responses from two other supposed participants. The responses were either both normatively correct, both normatively incorrect, or one of each, and were accompanied by brief rationales consistent with the responses or not. We found improved judgments only when both advisers were correct. Thus, it appears that the main type of influence was conformity to others positions with little if any informational influence or learning.

(103) Reasoning: Good decisions or justifiable decisions?
Mercier, Hugo (University of Pennsylvania)

According to dual process theories, the mind can be divided into intuitions which are generally efficient but prone to systematic mistakes and reasoning which allows us to correct for these mistakes. It has been shown however that reasoning in fact often causes these mistakes by driving people towards decisions that are easy to justify. This supports the argumentative theory of reasoning according to which finding arguments is the very function of reasoning. This framework can account for many other findings in decision making as well as in reasoning, social psychology, moral psychology and developmental psychology.

(104) Take This Advice And Shove It: When And Why We Discount Advice
Gino, Francesca (University of North Carolina, Chapel Hill); Moore, Don (Carnegie Mellon University)

A series of studies examined the role of various factors in moderating people's willingness to use advice, demonstrating that normatively irrelevant factors, such as an advice recipient's incidental emotions or an advisor's attractiveness, influence how heavily individuals weigh advice. For instance, in studies using estimation tasks, we found that incidental emotions (which are unrelated to the task at hand) can either increase or decrease advice taking when the emotions are misattributed. In related research, we consider factors such as egoism, self-serving biases, anchoring and differential information as potential mechanisms explaining egocentric advice discounting which has been documented by multiple researchers.

(105) Expertise, Confidence, Cheap Talk and Persuasion

Sah, Sunita (Carnegie Mellon University); Moore, Don (Carnegie Mellon University); MacCoun, Robert (University of California, Berkeley)

Factors influencing the persuasiveness and credibility of advice are of great interest to those who wish to influence the actions and decisions of others. In this presentation, we explore the effect of advisors' confidence and self-proclaimed expertise on the persuasiveness of their advice. In a new paradigm using factual claims, we found that with accuracy held constant, high confidence was more persuasive than low confidence. The claimed title of 'expert' was similarly influential. In other words, "cheap talk" claims of expertise and confidence can increase one's influence over others. Conditions where confidence helps or hinders credibility and persuasiveness are discussed.

(106) Two to Tango: The Effect of Collaborative Experience and Disagreement on Individual and Joint Estimates

Minson, Julia A. (Stanford University); Liberman, Varda (IDC, Herzliya, Israel); Ross, Lee (Stanford University)

Three studies explored the failure of dyad partners to fully benefit from each other's input in a multi-round estimation task. Neither long-term partnership experience nor laboratory manipulations focused on collaboration eliminated this phenomenon. The requirement to reach agreement increased the dyad members' mean accuracy, on both joint and subsequent individual estimates. Underweighting of partner input was greatest in cases of high disagreement. Study 1 demonstrated that the more partners disagreed, the more they saw their partner's assessments as biased and flawed. Studies 2 & 3 showed greater disagreement to be associated with greater improvement in accuracy and smaller final errors.

(107) Multiple Biases: Plausibility and evidence for independent and additive effects

Babad, Elisha (Hebrew University of Jerusalem); Peer, Eyal (Hebrew University of Jerusalem); Benayoun, Yehonatan (Hebrew University of Jerusalem)

In a given social situation, it is conceptually plausible that multiple biases would concurrently influence people's judgments and decision making. This study analyzed experiments where viewers judged a politician interviewed by a nonverbally friendly or hostile interviewer. A meta-analysis of several replications demonstrated the existence of two independent biases: Media bias (viewers rated the interviewee more favorably when the interviewer's NV behavior was friendlier); and a Halo effect (viewers rated the interviewee as a function of the degree of their personal liking of him). Regression analyses indicated that these two biases operated independently and additively on viewers' judgments.

(108) Group process decision making in informal groups

Kozlowski, Cathy (University of Phoenix)

This research examines group decision making process in small groups when the rules for making a decision is not fully established. Many non-profit organizations and small business often meet in small informal committees. Yet, many groups may not establish its rules for group decision making whether the group will vote determining basic majority or unanimous vote. As a result my research has found that these groups will often automatically assume the vote is unanimous consent and will drift towards the risky swift, distort information from its dissenters and will make stereotypes about certain group members.

(109) Modeling College Withdrawal Decisions

Pleskac, Timothy J. (Michigan State University); Keeney, Jessica (Michigan State University); Merritt, Stephanie M. (University of Missouri - St. Louis); Schmitt, Neal (Michigan State University); Oswald, Frederick L. (Rice University)

College students' withdrawal decisions have a direct impact on the health of universities. The present study integrates theories of employee turnover from organizational psychology and signal detection theory from cognitive psychology to model the withdrawal decision. The model posits that precipitating events or shocks lead students to consider evidence whether to withdraw from the university. If the evidence surpasses a criterion then the student decides to withdraw. The model was used to identify shocks students were sensitive to and to test hypotheses about the underlying decision process. The theoretical implications of this model and macro-level phenomena it predicts are evaluated.

(110) Using very inaccurate experts to improve performance

Sutherland, Steven (Southern Illinois University at Carbondale); Young, Michael (Southern Illinois University at Carbondale)

Previous research has explored several factors that influence when expert advice is requested and used. In the present research, we further explored the effects of the experienced accuracy of the expert and the cost of advice. Support was shown for an expected value approach to requesting advice, though participants performed sub-optimally. We failed to find support for an adherence to sunk cost, as the cost of advice did not affect the utilization of advice. We found that participants request advice from very inaccurate experts, use the advice to rule out an option, and subsequently improve their own accuracy.

(111) The Decision Making Styles Inventory: Analysis of factor structure and factorial invariance

White, Rebecca (University of Chicago); Nygren, Thomas (Ohio State University)

The Decision Making Styles Inventory is designed to assess three distinct self-reported decision making propensities. Exploratory and confirmatory factor analyses on several large data sets indicated that these styles have been robustly identified and validated as an Analytical style, an Intuitive style, and a Regret-based style. Further, these three 15-item scales are only marginally pairwise correlated, suggesting they reflect relatively independent psychological latent variables. The factorial invariance of the inventory was investigated with samples of undergraduate students and adult non-students. Individual differences in the endorsement of these three decision styles can be reliably differentiated by the Decision Making Styles Inventory.

(112) My Loss Versus Your Gain: The Effects of Attribution and Individual Differences

Rim, Hye Bin (Ohio State University); Nygren, Thomas E. (Ohio State University)

In competition, the outcome is a relative concept rather than an absolute concept. That is, my loss (gain) can also be seen as a rival's gain (loss). The present study examines preferences for the outcomes of competition when the outcomes are framed differently. The results of a scenario-based experiment show that preferences are influenced by causal attribution (self vs. other) and ego defense. However, maximizers were found to be more likely to prefer a rival's loss rather than a gain for themselves, and a rival's gain to their loss than were non-maximizers, regardless of who deserved the gain or loss.

(113) Time Perception and Strength of Handedness

Westfall, Jonathan E. (Columbia University); Jasper, J.D. (The University of Toledo)

Objective measures of time (i.e., 1 month, 3 years) rarely correlate with subjective judgments of time (i.e., near, distant). We investigated the relationship between strength of handedness and subjective judgments of time. Mixed-handers, individuals who tend to use both hands for a variety of tasks, preferred increasing sequences of income more so than strong-handers. They also displayed lower discounting rates and judged a date 3 years in the future as closer. We discuss possible neurological implications and propose that mixed-handers may have greater interhemispheric interaction, giving them a different view on tasks involving time perception.

(114) Leadership Decision Making

Lerner, Jennifer S. (Harvard University); Inbar, Yoel (Harvard University); Teplitz, Paul (Harvard University); Kustoff, Jessica J. (Harvard University); Litvak, Paul M. (Carnegie Mellon)

As part of a multi-year assessment of leadership decision making, we compared the performance of elite leaders ($n = 79$) to the performance of control subjects (two comparison samples: $n = 94$, $n = 360$). All members of the elite sample were verified as currently holding an executive-level position in government and/or industry. Results revealed that, compared to the control samples, the elite leaders: (a) took more risks in the Balloon Analogue Risk Task (Lejeuz et al., 2002); (b) were more resistant to the sunk cost bias; and (c) were better calibrated regarding the accuracy of their estimates.

(115) The Sunk Cost Fallacy and Decision Making Styles

Fernandez, Norma P. (University of Texas at El Paso); Morera, Osvaldo F. (University of Texas at El Paso); Guillen-Gomez, Laura (University of Texas at El Paso)

The decision to continue with a present course of action should be influenced by future benefits, instead of previous costs. However, research has shown that past investments strongly influence decision making and is known as the Sunk Cost Fallacy. The present study examined the relationship between individuals' decision making styles and the extent to which they fall prey to the Sunk Cost Fallacy. Participants evaluated 8 scenarios, where investments amount, manner in which a decision was made, and decision maker's identity were manipulated. Our findings indicate that individual differences of decision making styles are related to the sunk cost effect.

(116) An Examination of Real-World Predictions from Experience or Description

Lester, Houston F. (Auburn University); Cullen, Kristin L. (Auburn University); Franco-Watkins, Ana M. (Auburn University); Syvantek, Daniel J. (Auburn University)

Previous research has demonstrated a distinction between decisions based on experience (DFE) and description (DFD). We applied the DFE/DFD paradigm to examine real-world decisions (i.e., predictions in first-round basketball tournament games). After completing training on the probabilities associated with game outcomes using either a DFD or DFE structure, participants predicted the outcome of each game and rated their confidence (immediately and 1-2 weeks later). Preliminary results revealed that training did not affect overall accuracy or confidence; however, we examined whether individual differences in previous experience, knowledge, and personality variables play a role in decision making.

(117) For the love of the game: Motivation for pathological gambling

Fortune, Erica E. (UGA); Goodie, Adam S. (UGA)

Participants completed the South Oaks Gambling Screen (SOGS) and the Diagnostic Interview for Gambling Severity (DIGS) as well as the BIS/BAS behavioral motivation scale. Significant correlations between the BAS fun component and the DIGS ($r = .23$, $p < .05$) and SOGS ($r = .38$, $p < .001$) suggest that the enjoyment of gambling may be sufficient to motivate pathological gamblers even in the absence of financial rewards. In Study 2, direct evidence about the interactive influence of monetary and fun-based motivations for gambling was sought through simultaneous administration of the BIS/BAS and the Gambling Motivation Scale. Results are discussed.

(118) Axing the Taxman: The Psychology of Tax Aversion

Sussman, Abigail B. (Princeton University); Olivola, Christopher Y. (University College London)

Tax collection is critical for maintaining a country's infrastructure. However, most of us dislike paying taxes. Although a distaste for paying taxes could be rational on economic grounds, we show this aversion extends beyond disliking the costs incurred through taxation, and that the mere thought of taxation can alter political attitudes. In Study 1, respondents were more willing to travel 30 minutes for an 8% tax-free discount on a television than for a 9% tax-unrelated discount. In Study 2, respondents were more likely to identify with anti-tax political parties the more frequently taxes were mentioned in the media.

Session #2 with Cash Bar (Sunday, 5:00 - 7:00pm, Hynes Convention Center, 3rd level, Ballrooms A, B, C; attached to Sheraton through walkway)

(1) The Misery-is-not-Miserly Effect in Intertemporal Choice

Gandhi, Viral J. (Harvard University); Lerner, Jennifer S. (Harvard University); Weber, Elke U. (Columbia University)

Misery is not miserly: Incidental sadness increases the amount of money decision makers pay to acquire a commodity, even when decision makers are unaware of it (Lerner, Small & Loewenstein, 2004). Does incidental sadness also make decision makers willing to pay a premium for acquiring goods now versus later? We examined this in an experiment that primed incidental emotion, and then presented a choice set for eliciting discount rates (real financial consequences), modeled on Kirby, Petry and Bickel (1999). Results revealed a 92% higher discount rate for sad subjects -- a large and costly difference about which decision makers were unaware.

(2) Neural and behavioral correlates of value for lone anticipated rewards exhibit steeper delay discounting than binary preferences predict

Monterosso, John (University of Southern California); Luo, Shan (University of Southern California); Ainslie, George (Coatesville VA Medical Center)

Several theories of self-control (e.g., self-signaling, intertemporal bargaining) imply intertemporal decisions can be more farsighted than would be predicted by incentive value of rewards outside a decision context. We examined this hypothesis using behavior and functional neuroimaging. For each participant, immediate and delayed monetary amounts with equivalent decision-utility were established. Next, rewards comprising indifference pairs were presented individually as potential prizes in an fMRI reaction time task. RT was faster and activity in brain regions associated with value was greater for immediate relative to the equally preferred delayed money. Intertemporal decisions are farsighted relative to incentive values of individual rewards.

(3) Predicting Health-Related Risk Behaviors with Delay Discounting and Time Perspective Measures

Daugherty, James R. (Kansas State University); Brase, Gary L. (Kansas State University)

This study compared a measure of temporal discounting with measures of time perspective to examine concurrent, discriminate, and incremental validity when predicting health-related risk behaviors. Participants ($N = 467$) completed the Money-Choice Questionnaire (MCQ), Consideration of Future Consequences Scale (CFCFS), Zimbardo Time Perspective Inventory (ZTPI), and a survey of health behaviors. All three measures were useful at uniquely predicting different health-related risk behaviors; however, our results suggest that some measures, particularly the ZTPI Future scale, were more successful than others. Together, the results suggest that temporal discounting and time perspective are related, yet non-redundant constructions.

(4) Leveraging a theory of slack: How resource scarcity affects borrowing behavior

Shah, Anuj K. (Princeton University); Shafir, Eldar (Princeton University); Mullainathan, Sendhil (Harvard University)

We explore the effects of resource slack and scarcity on borrowing, savings, and performance. Specifically, we examine how resource slack and scarcity influence borrowing behavior, sensitivity to interest rates, and accrual of monetary rewards. We find that participants with low slack are often insensitive to interest rates, and therefore borrow to their own detriment in stark contrast to high-slack participants. Notably, low-slack participants performed best when the option to borrow was unavailable. We consider several explanations for the observed patterns and discuss implications for the study of behavior under resource scarcity in general, and under poverty in particular.

(5) When waiting increases weapon efficacy: A video game to study delay discounting

Young, Michael (Southern Illinois U. at Carbondale); Webb, Tara (Southern Illinois U. at Carbondale); Jacobs, Eric (Southern Illinois U. at Carbondale)

In studies of delay discounting, participants must make a series of pairwise comparisons to evaluate sooner smaller versus larger later outcomes. In our game, players decide when to fire a weapon that produces increased damage the longer one waits. Our players showed sensitivity to the manipulated benefits of waiting that were not predicted by a paper-and-pencil discounting task. Furthermore, smokers showed greater sensitivity to the payoffs and evidenced more movement in the game environment, but smokers were not more impulsive in either the game or the conventional task indicating a possible shift in the college smoking population.

(6) Owing it to yourself: Testing a duty-based argument for retirement saving

Bryan, Christopher J. (Stanford University); Ersner-Hersfield, Hal (Kellogg School of Management, Northwestern University); Ross, Lee (Stanford University)

People often fail to save enough for retirement. Past research has found individual differences in the way people think of their future selves: either as extensions of their present selves or as different people altogether. For the latter group, saving for retirement can feel like giving money to another person. For such people, appeals to a sense of "duty" to one's future self--a self that is dependent on the present self, much as one's children or aging parents are--can be more effective at motivating people to save than conventional messages that appeal to a sense of self-interest.

(7) Do individual differences in working memory affect delay discounting decisions?

Acuff, Roy (Auburn University); Franco-Watkins, Ana (Auburn University); Mattson, Richard (Auburn University)

Previous research has demonstrated a link between working memory and impulsive decision making in brain-damaged patients and substance-abuse addicts. However, this link is less clear when typical participants are used. We examined whether individual differences in working memory affects decision making in an undergraduate sample. Forty-eight participants completed a delay discounting task in presence and absence of a demanding cognitive load task (a generation task). Consistent with previous results, we found that participants are more intransitive under cognitive load; but not more impulsive. Further, no relationship was observed between individual differences in working memory and decision making.

(8) The Long View: Measuring discount rates at large delays and across domains

Thompson, Katherine J. (Columbia University); Hardisty, David J. (Columbia University); Weber, Elke U. (Columbia University)

235 US residents answered hypothetical questions about monetary (money now vs. money later) and environmental (money now vs. improved air quality later) gains at short (1-year) and long (10-, 50-year) delays. A novel, adaptive method of measuring temporal discount rates was tested against two common methods, matching and titration. The adaptive method, multiple-staircase, uses principles of psychometric measurement techniques to zero in on indifference points. This method yielded lower variance in discount rates for long monetary timescales and all environmental timescales. It also caused participants less confusion and, most importantly, better predicted consequential intertemporal choices in another task.

(9) Instant Wins versus Sweepstakes: Attitudes toward Delayed Promotions

Laurent, Gilles (HEC); Prokopec, Sonja (ESSEC); Onculer, Ayse (ESSEC)

Retailers frequently use sales promotion tools as a part of their marketing effort. The current study investigates the impact of time preferences on attitudes towards sales promotion tools. Results from a ranking experiment shows that the most attractive reward structure is a hedonic prize to be obtained in the future. The least preferred option is immediately-resolved lotteries involving utilitarian prizes. These results can be explained by non-stationary risk attitudes, time preferences and affective responses (such as savoring and hope).

(10) Temporal Focalism

Chan, Steven (New York University); Kruger, Justin (New York University)

A focalism effect based on comparing time has not been previously demonstrated. This research shows the effect of comparing judged frequency of both common and rare activities performed currently (undergrad) versus in the past (high school). For example, when asked to compare high school to now, participants were more likely to indicate that they procrastinated (common) more and watched foreign language films (rare) less in high school than now. A second group asked to compare in the reverse order, now to high school, showed a similar overestimation for common and underestimation for rare activities.

(11) Ambiguity Aversion in Risk and Delay

Weber, Bethany (Iowa State University); Tan, Wah Pheow (Temasek Polytechnic)

Researchers have noted several parallels between biases of risky choice and those of intertemporal choice. The present experiment investigates whether ambiguity aversion can also be found in the domain of intertemporal choice. We examined subjects for both the traditional Ellsberg paradox, and an intertemporal version of the paradox using delays to the receipt of a package. We found that subjects displayed the Ellsberg paradox for both the risky and intertemporal versions of the paradox, demonstrating that decision makers are ambiguity-averse in both the domains of delay and risk. This finding suggests another similarity between risky and intertemporal choice.

(12) Is Time Money? Decision making across time and money

Sussman, Abigail B. (Princeton University); Shafir, Eldar B. (Princeton University)

Time is a highly immutable resource, making decisions about its allocation crucial. People can experience greater or lesser time scarcity, much as they do with money. While most mental accounting research is about money, individuals constantly decide how to spend their time as well. Recent studies have shown that contexts of monetary scarcity may alter the mental accounting of money (Hall, 2008). We examine the effects of time scarcity on the mental accounting of time, and consider these relative to the mental accounting of money. Some of the implications of scarcity versus slack in time versus money are discussed.

(13) Everyday time travel: The effect of tense on judgment

Kane, Joanne (Princeton University); Van Boven, Leaf (University of Colorado, Boulder); McGraw, A. Peter (University of Colorado, Boulder)

Results from six experiments support the hypothesis that mental simulation in the past tense is, and feels, more constrained by reality than mental simulation in the future tense. Participants reported that it is easier to think about future events than past events, that thinking about the future feels more imaginative and creative than thinking about the past, and that mental simulations of future events are more stereotypical or prototypical than mental simulations of past events. Discussion centers on the expansion of social psychological theories of judgment over time.

(14) Temporal Distance and Intentions toward Socially (Un)Desirable Behaviors

Choi, Soe Yoon (Rutgers University); Park, Hee Sun (Michigan State University)

People generally judge their future actions in a desirable and positive way. Based on Construal Level Theory, we hypothesized that people's intentions of blood donation will increase whereas the intentions of littering will decrease over temporal distance. Further analysis investigated whether previous experiences had main effects on intentions as a function of confirming morality when donating blood or justifying immorality when littering in an urgent situation. The results showed an increasing intention of blood donation over time. Both behavioral intentions were higher over temporal distance for people who had had those previous experiences.

(15) Educating drivers on the time saving bias reduces likelihood of speeding

Peer, Eyal (Hebrew University of Jerusalem); Gamliel, Eyal (Ruppin Academic Center); Babad, Elisha (Hebrew University of Jerusalem)

According to the time saving bias, drivers overestimate the time they can be gained by increasing from high speeds. Participants were presented with a situation in which they are running late for an appointment and asked to indicate the likelihood they will choose to speed in order to save time. When the real time gain was made explicitly available to participants, drivers indicated lower speeds as their personal preference in such situations and were less likely to choose to exceed the maximum speed limit. This suggests that educating drivers on the time saving bias may reduce likelihood to speed.

(16) It's the Thought that Will Count: Future Behavior is Seen as More Intentional than Past Behavior

Burns, Zachary C. (Chicago Booth); Bartels, Daniel M. (Chicago Booth); Caruso, Eugene M. (Chicago Booth)

People tend to reason differently about past and future events. Because knowledge about outcomes is relatively more certain for past events than future ones, but knowledge about intentions is relatively uncertain in both cases, we predict that beliefs about an actor's intentions will be more prominent when explaining future behavior than past. We find evidence that intentions carry more weight in assessments of future behaviors that are both positive (donations to charity) and negative (misreporting of taxes). The results suggest that attributions of an actor's intentions are heavily influenced by the mere temporal location of the behavior itself.

(17) The Effect of Age in Decision Making

Qian, Jing (Columbia University); Johnson, Eric (Columbia University); Weber, Elke (Columbia University)

Younger and older adults make decisions differently. Our research uses the Columbia Decision Inventory/web (CDI/web) to measure four important decision indices: loss aversion, asymmetry in inter-temporal choice, effect of framing and effect of anchoring. We found age differences in the decision making domains of asymmetry in temporal discounting, framing and anchoring. We also tested our older and younger participants on a series of cognitive tasks using the Columbia CREATE Web-Based Neuropsychological Tests (CCWNT) in order to establish how fluid intelligence factors (such as working memory, processing speed), and crystallized intelligence factors (such as vocabulary) influence decision making characteristics.

(18) The rules of aging: Aging favors rule-based processing in categorization and multiple-cue judgment

Mata, Rui (Stanford University); von Helversen, Bettina (University of Basel); Karlsson, Linnea (Max Planck Institute Human Development)

We investigated age differences in similarity-based vs. rule-based processes in a task that can be considered either a categorization task or a multiple-cue judgment task depending on the nature of the criterion (binary vs. continuous). Computational modeling suggested that in the binary task the majority of younger adults were best described by an exemplar model while in the continuous task a rule-based model did best. In contrast, the majority of older adults relied on rule-based processes regardless of task condition. We conclude that "rules rule" with advanced age in both categorization and multiple-cue judgment tasks.

(19) Optimistic Predictions in a Gambler's Fallacy Task: Comparing Children and Adults

Bossard, Elaine A. (University of Iowa); Levin, Irwin P. (University of Iowa); Hart, Stephanie S. (University of Houston - Clear Lake)

A gambler's fallacy task was designed for use by both children (aged 8-9) and adults (their parents). Beans of two different colors were drawn from a container. On different trials different colors were designated as "winning." Participants were rewarded both for guessing which color would be drawn and for drawing the winning color. Children were more optimistic than adults in predicting that the winning color would be drawn and were more apt to exhibit the gambler's fallacy of predicting the end of a string of losing trials. Results will be discussed in terms of developmental differences in decision processes.

(20) Cognitive adaptations for resource search: Explaining hot hands and fallacious gamblers

Wilke, Andreas (Department of Psychology, Clarkson University); Barrett, H. Clark (UCLA Anthropology); Todd, Peter M. (Cognitive Science Program, Indiana University)

Wilke & Barrett (2009) proposed that the "hot hand" phenomenon, expecting that streaks will continue, is not a reasoning fallacy as commonly suggested, but rather reflects an evolved psychological assumption that items in the world come in clumps. In computerized experiments, American undergraduates and Shuar hunter-horticulturalists predicted hits and misses in foraging for fruits, coin tosses, and several other kinds of resources whose distributions were generated randomly. The results suggested that a hot hand expectation of clumps is our evolved psychological default, though this can be reduced (though not eliminated) by experience with genuinely independent random phenomena like coin tosses.

(21) Examining Adolescent Sexual Risk Taking from a Decision Making Perspective

Young, Diana L. (University of Georgia); Goodie, Adam S. (University of Georgia)

There is growing interest in the understanding and prevention of risky adolescent sexual behaviors. Although scales exist that assess adolescent risk perceptions in various behaviors from a decision making perspective (e.g., Benthin, Slovic, & Severson, 1993; Gullone, Moore, Moss, & Boyd, 2000), most do not address adolescents' perceptions of consequences associated with sexual behaviors that are considered precursors to sexual intercourse, such as flirting, especially recent, technologically-driven precursor behaviors such as "sexting." The present research examines risk perception and perceived risk attitude regarding behaviors such as these from a decision making perspective.

(22) Exploring Possible Connections between Adolescents' Epistemological Understandings, Argumentation and Decision Making Skills

Iordanou, Kalypso (University of Cyprus); Constantinou, Constantinos (University of Cyprus)

The present study examined (a) whether there is a relation between epistemological awareness and decision making skills, and, (b) whether engagement in argumentation activities support the development of decision making skills. In addition, we investigated the effectiveness of an intervention that aims to help students develop optimization as a strategy for choosing among alternative solutions. Sixteen adolescents participated in an intervention which includes argumentation activities as well as activities for practicing the optimization strategy over 16 sessions, while fifteen others, served as a control condition, engaged in activities regarding the optimization strategy but not in argumentation activities.

(23) Deep rationality, behavioral economics, and mating decisions

Kenrick, Douglas T. (Arizona State University); Li, Yexin Jessica (Arizona State University); Li, Norman P. (Singapore Management University); Sundie, Jill M. (University of Houston & University of Texas at San Antonio)

From an evolutionary perspective, people make decisions according to principles that seem irrational at a superficial level, but are rational at a deeper level -- using domain-specific decision-rules that, on average, would have resulted in fitness benefits. We present several studies suggesting that traditional psychological functions governing risk aversion, discounting future benefits, and budget allocations to multiple goods vary as a function of decision-maker's motives and individual differences linked to evolved life-history strategies. For example, activating mating motives reverses standard loss aversion in males (but not in females), and men and women differ predictably in appraising social luxuries and necessities.

(24) Sequential decision mechanisms in human mate choice

Todd, Peter M. (Indiana University); Beckage, Nicole (Indiana University)

Choosing appropriate mates from the sequential stream of possible partners encountered over time is a challenging adaptive problem. But getting data on mate search is also challenging because of the long time-scales involved. Speed-dating provides an accelerated microcosm of mate search behavior. Here we use such data to assess search heuristics including fixed threshold models and adjustable aspiration level mechanisms that respond to previous experiences of success or failure on the mating market. We find that initial thresholds related to own attractiveness combined with experience-based threshold adjustment can account for most of the offers made during speed-dating.

(25) How humans cognitively manage too much mate choice

Lenton, Alison P. (University of Edinburgh); Francesconi, Marco (University of Essex)

This presentation reports the results of a new study investigating the impact of "too much choice" on the choice behaviour of speed daters. We found that choosers facing an increasing number of speed dating options paid more attention to attributes that are quickly and easily assessed (e.g., age and body-size) and less attention to those requiring time to elicit and evaluate (e.g., occupational status and educational attainment). Speed daters use choice heuristics when faced with an increasing number of potential mates, thus demonstrating that how people choose mates sits squarely in the domain of general human cognition.

(26) Let's get serious: Communicating commitment in romantic relationships

Ackerman, Joshua M. (Massachusetts Institute of Technology); Griskevicius, Vladas (University of Minnesota); Li, Norman P. (Singapore Management University)

The first time people say "I love you" in romantic relationships, they express both their feelings and a commitment to future behavior. Applying an evolutionary-economics perspective, we predict that men and women have different inherent reference points modulating the potential gains and losses they incur from initially confessing love. These gains and losses also bias affective responses to these confessions. In 4 studies, we show that, although women are more associated with the concept of love, men tend to confess love first and to respond more positively to confessions, but only prior to the onset of sexual activity in relationships.

(27) Humans copy social information in mate choice decisions

Place, Skyler S (Indiana University); Todd, Peter M (Indiana University); Penke, Lars (University of Edinburgh); Asendorpf, Jens B (Humbolt University of Berlin)

Humans, like many species, face the challenging adaptive decision problem of finding a mate. When searching for a mate, one must gather information to determine the value of potential partners. By focusing on individuals that have been previously chosen by others, one's selection of mates can be influenced by another's successful search in a phenomenon known as mate copying. We show mate copying in humans with a novel methodology that closely mimics behavioral studies with non-human animals. After viewing instances of real mating interest in video recordings of speed-dates, both male and female participants show mate copying effects.

(28) Exploring the influence of pictographic representations of statistical information

Hulsey, Lukas (Wichita State University); Shaffer, Victoria A. (Wichita State University)

Participants made a hypothetical treatment choice for angina. Statistical information regarding the effectiveness of two possible treatment options was provided in either a text-based or pictographic format. Those who received the pictograph were more likely to choose the more effective, more invasive procedure. Two potential explanations for this were tested. Those in the pictograph condition were predicted to rate effectiveness information as more important and invasiveness as less important in their decision. Additionally, better recall of the correct gist representation of the statistic (bypass is more effective than angioplasty) was predicted for those who received the pictograph.

(29) Are Pictures the Voice of Numbers in a Medical Decision Making Task?

Kelades, Joshua (Acadia University); McLeod, Peter J. (Acadia University); Mehta, Rick (Acadia University)

Assessed whether pictographs and/or quizzes would decrease reliance on personal testimonials in a medical decision making task. Participants read a scenario describing a patient's symptoms, two treatment options, and their success rates. This was followed by testimonials for each treatment. Participants then stated which treatment they preferred and rated their confidence. Independent variables were: whether success rates were illustrated with pictographs or described only as text, and whether participants were quizzed specifically on success rates. Reliance on testimonials decreased after viewing pictographs, but decisions were not influenced by quizzes. Interestingly, the order in which IVs were administered differentially impacted confidence.

(30) Effect of false positive screening results and psychosocial factors on compliance with repeat lung cancer screening

Byrne, Margaret (University of Miami); Llabre, Maria (University of Miami); Weissfeld, Joel (University of Pittsburgh); Roberts, Mark (University of Pittsburgh)

We explored whether false positive screening results and psychosocial characteristics affect compliance with repeat lung cancer screening. 400 individuals in a screening efficacy study completed 4 surveys, prior to and following screening; and were supposed to complete a 1-year follow up lung scan. We used a structural equation modeling regression framework. Higher anxiety at baseline is associated with lower compliance with repeat screening, whereas greater increases in anxiety after screening lead to increased compliance. The influence of screening result, demographic variables, and social support on compliance appear to be mediated by anxiety, as they showed no significant direct effects.

(31) The impact of expertise level in judgment analysis: A comparison between Fast and Frugal and Logistic Regression models

Kerimi, Neda (Stockholm University); Backlund, Lars (Karolinska Institute); Skaner, Ylva (Karolinska Institute); Strender, Lars-Erik (Karolinska Institute); Montgomery, Henry (Stockholm University)

We cross validated three logistic regression models with different cue inclusion methods with two Fast & Frugal (F& F) models in terms fit and prediction as the dependent variable and expertise level as the independent variable. Results showed that there were no differences in fit and prediction depending on expertise level in the f& f models. In the LR models, however, the fit and prediction differed depending on expertise level. This indicates that regression models are better at capturing and representing decision behavior of different expertise levels.

(32) The Effect of Testimonials in Patient Decision Aids: The Role of Numeracy, Literacy and Decision Making Style

Shaffer, Victoria A. (Wichita State University); Templin, Sara (University of Georgia); Hulsey, Lukas (Wichita State University); Barr, Amanda (Wichita State University)

200 women made a hypothetical choice between two treatments for early stage breast cancer: lumpectomy with radiation and mastectomy. Participants viewed one of two DVDs about the treatments. One DVD included only statistical information; the other included both statistical information and patient testimonials. There was no main effect of testimonials on treatment choice; however, there were significant interactions between condition (statistics only and statistics + testimonials) and participant education and income. In addition, participants choosing mastectomy were more confident than those choosing lumpectomy; confidence was also significantly impacted by a condition x treatment choice interaction.

(33) Predicting Clinical Outcomes the Fast and Frugal Way

Jenny, Mirjam (University of Basel); Pachur, Thorsten (University of Basel)

Clinical diagnoses are often inferior to those of actuarial (e.g., linear) models. Simple, noncompensatory heuristics can outperform such compensatory models out-of-sample. We compare (i) fast and frugal decision trees (FFTs) with (ii) clinicians' diagnoses and (iii) logistic regression in two clinical domains. (1) Predictions of psychoticism vs. neuroticism (using data by Meehl, 1954). (2) predictions of depression (using longitudinal data of the "Dresden Predictor Study"). Our analysis show, that, concerning predictive accuracy, FFTs can outperform logistic regression and clinician's diagnoses. Therefore, using simple decision heuristics should be considered in clinical settings.

(34) Laypeople's Views on Decision Making in the Health Professions

de Oliveira, Stephanie (The Ohio State University); Arkes, Hal (The Ohio State University)

We investigated laypeople's views of actuarial judgment (AJ) and clinical judgment (CJ) as used in the health professions. Eighty-two participants assigned to either medical or psychology cases, read both easy and difficult diagnosis scenarios, rating the appropriateness of and comfort with using AJ and CJ in each. AJ was rated as more appropriate in medical and difficult scenarios, whereas CJ was rated as more appropriate in psychological and easier scenarios. Participants expressed greater comfort with CJ in both medical and psychological domains. Measures of participants' beliefs about doctors and psychologists helped explain the effects of our independent variables.

(35) Accuracy of Various Algorithms for Diagnosing from a Disease by Finding Sensitivity Matrix

Hamm, Robert M. (University of Oklahoma Health Sciences Center); Golmoradi, Kiamars R. (University of Oklahoma Health Sciences Center); Wolfe, Timothy A. (University of Oklahoma Health Sciences Center); Magrill, Talia B. (University of Oklahoma Health Sciences Center); Papa, Frank J. (University of North Texas College of Osteopathic Medicine)

We report analyses of a medical diagnosis task (acute chest pain) in support of a tutorial for medical students. Accurate diagnosis is complicated by the intercorrelations among clinical findings. We generated cases from a Disease-by-Finding matrix of sensitivities and compared variants of three diagnostic approaches - similarity of case to prototype (correlation), Bayes' Theorem, and the KBIT algorithm of Papa (1991). Relative accuracies suggest that when we lack full information about symptom interrelations, heuristic diagnosis methods may suffice for the preparation of a diagnosis tutor. Between method confusion matrices give insight into the strengths and weaknesses of the different approaches.

(36) A Natural History Model to Estimate the Potential Impact of Human Papillomavirus Vaccination to Reduce Cervical Cancer Disparities between US Females

Sanon, Myrlene (i3 Innovus); Taylor, Douglas (i3 Innovus); Kruzikas, Denise (GlaxoSmithKline); Pawar, Vivek (i3 Innovus); Gilmore, Kristen (i3 Innovus); Weinstein, Milton

Over 17 million American females do not have health insurance. Pre-cancerous cervical lesions and cancer (CC) are common in US females, and CC screening can be effective in reducing CC incidence. The objective of this study was to assess the clinical benefits of CC screening and vaccination in insured and uninsured 19-year-old females cohorts using a Markov model. Uninsured females have lower screening rates and a higher overall risk of developing CC compared with insured females. Vaccinating females, regardless of insurance status, may reduce the lifetime disparity in CC outcomes between insured and uninsured females by more than 60%.

(37) Integrating Context in Clinical Thinking: Themes and Categories Activated During the Patient Encounter

Devantier, Sarah L. (the University of Western Ontario); Minda, John Paul (the University of Western Ontario); Haddara, Wael (the Schulich School of Medicine & Dentistry); Goldszmidt, Mark (the Schulich School of Medicine & Dentistry)

When interacting with a patient, what categories are activated in a physician's mind? Certainly diagnostic categories are activated as the physician considers a differential diagnosis, but presumably there are other active categories as well. We suggest that goal-oriented categories, such as patient management categories, are also activated. Using a forced-choice triad task we show that experienced physicians are equally likely to endorse both diagnostic and management groupings of patients, indicating that both types of category are salient when interacting with patients. Using a think-aloud protocol, we further investigate category structures in both experienced and novice physicians.

(38) Pictures Speak Louder than Numbers: On Communicating Risks to Non-Native Language Speakers

Garcia-Retamero, Rocio (University of Granada); Dhami, Mandeep K. (University of Cambridge); Galesic, Mirta (Max Planck Institute for Human Development)

People have difficulties grasping numerical concepts necessary for understanding risks. In denominator neglect, people focus on number of times a target event has happened, without considering the overall number of opportunities for it to happen. We studied denominator neglect in medical problems involving risk reduction. Polish residents in the UK were provided with risk information either in Polish or in English, and with or without icon arrays. Many participants showed denominator neglect especially when numerical information was in English. However, icon arrays proved effective in eliminating denominator neglect among these non-native language speakers.

(39) One decision at a time or the whole path at once? When the way information is provided affects prostate cancer decision making

Gavaruzzi, Teresa (DPSS, University of Padova); Zikmund-Fisher, Brian (VA; Division General Internal Medicine; CBDSM, Ann Arbor, MI); Ubel, Peter (VA; Division General Internal Medicine; CBDSM, Ann Arbor, MI); Lotto, Lorella (DPSS, University of Padova); Fagerlin, Angela (VA; Division General Internal Medicine; CBDSM, Ann Arbor, MI)

We examined the effect of two information presentation methods (e.g., information described PSA testing, biopsy, treatments) on people's willingness to undergo prostate cancer testing: sequential vs. presented all at once. Participants rated their willingness to undertake each option either right after reading each piece of information (sequential) or after reading all information. Participants receiving information all at once were less willing to undergo a biopsy and were more unsure about which treatment to have. These results highlight differences in prostate cancer decision making depending on whether the decision is presented as a single decision or as a series of decisions.

(40) A Memory Theoretic Account of Information Search: Effects of Base Rates and Sampling Biases

Lange, Nick D. (University of Oklahoma); Thomas, Rick P. (University of Oklahoma); Dougherty, Michael R. (University of Maryland)

Because base-rate differences are inherent in the ecology and experience is rife with sampling biases, it is important to study how these factors can lead to miscalibration of beliefs and promote suboptimal, even hazardous, information search. The HyGene architecture (short for Hypothesis Generation) was used to explore these effects on hypothesis generation and testing behavior through computational simulation. The model makes strong and empirically testable predictions concerning how hypothesis generation and testing are influenced by base rates and sampling biases. Additionally, the examination of multiple hypothesis-testing rules informs empirical research to address the specific information search strategies people utilize.

(41) An Examination of Individual Differences in Working Memory Capacity Effects on the Encoding and Retrieval of Information under Cognitive Load

Montano, Michael J. (Auburn University); Franco-Watkins, Ana M. (Auburn University)

People often make decisions while under additional cognitive demands, such as cognitive load or time pressure. The current experiment investigates how individual differences in working memory affect encoding of novel city size information and how cognitive load modulates the retrieval of the trained information. Participants were trained on different cities with feedback. After reaching the accuracy criterion, participants completed the decision task alone and under more demanding situations (e.g., dual-task). Results indicate that cognitive load reduces the accuracy in responding by participants. Working memory is examined to determine the role it plays in the encoding and retrieval of new information.

(42) The ecological rationality of betting on speed of retrieval in memory-based decision making

Gaissmaier, Wolfgang (Max-Planck-Institute for Human Development); Schooler, Lael J. (Max-Planck-Institute for Human Development); Marewski, Julian N. (Max-Planck-Institute for Human Development)

The need to retrieve cue information from memory induced the use of simple decision strategies, which process cues sequentially and often bet on only one good reason (Bröder & Gaissmaier, 2007). Therefore, the order in which cues are considered is particularly important. We investigated whether the speed of retrieving information allows for ordering cues successfully. The results of two experiments suggest that the speed with which cues about real objects come to mind is indeed informative. Simulations showed that feeding decision strategies with retrieval speed to order cues was largely beneficial and allowed them to compete even with multiple regression.

(43) The Relations Among the Iowa Gambling Task, Real-World Decision Outcomes and Working Memory

Furl, Brent (Wake Forest University); Jennings, Janine M. (Wake Forest University); Stone, Eric R. (Wake Forest University)

The Iowa Gambling Task (IGT) was designed to mimic real-life decision making and has been used with a variety of populations. In the current experiment, we examine whether performance on the IGT is associated with positive real world decision-making outcomes using the Decisions Outcome Inventory (Bruine de Bruin et al., 2007) and explore the role of conscious processing on the IGT by adding a working memory task. Surprisingly, individuals with poorer real-world decision outcomes scored better on the IGT and were most affected by working memory load. The possible role of maximizing vs. satisficing in explaining these results is discussed.

(44) Optimal Foraging in Semantic Memory

Hills, Thomas (University of Basel); Todd, Peter (Indiana University); Jones, Michael (Indiana University)

We investigated how people retrieve items from memory using the category fluency task: Participants were asked to retrieve the names of as many types of animals from memory as they could in three minutes. Semantic structure was defined using a semantic space model (BEAGLE) and via hand-coded categories. We found that participants didn't appear to use a categorical patch model, such as 'pets', but used a more fluid item-level semantic patch structure. They also left patches when the marginal (current) rate of finding items was near the average rate for the entire task, as predicted by the Marginal Value Theorem.

(45) Experience-based decisions and paired distinctiveness of rare events

Haberstroh, Susanne (University of Osnabrück, Germany); Oeberst, Aileen (University of Osnabrück, Germany)

In studies on experience-based decision making, participants usually are either presented with a fixed sample (e.g. 50 pieces of information per lottery) or participants sample the information themselves. The influence of diverging sample sizes within a pair of lotteries has not been systematically addressed so far. From research on stereotyping (Hamilton & Gifford, 1976) we know that the joint occurrence of two rare events (\bar{N} paired distinctiveness”) can have a strong influence on judgments and decisions. In this experiment, we combined these research approaches by studying the impact of events with a low probability in a big or a small sample.

(46) The Roar of the Crowd: Narrative Richness and Hindsight Bias

Kausel, Edgar E. (University of Arizona); Connolly, Terry (University of Arizona); Birk, Sam (University of Arizona)

Several accounts of hindsight bias rely on the subjects' ability to retrospectively construct rich narratives connecting outcomes to antecedents. In two experiments, we found that hindsight bias in judging real football games by football experts from statistical information was amplified by quite modest insertion of non-predictive but vivid features: team names (Experiment 1) and generic football-related pictures (Experiment 2). These findings suggest that ease of activation of links between antecedents and outcomes is a key mechanism of the hindsight effect.

(47) Of Lines and Bounds: The Role of Casuistry and Case-Based Reasoning in Optimizing and Non-Optimizing Decision Frameworks

Searing, Elizabeth A.M. (Georgia State University)

The concepts of casuistry and case-based reasoning provide Herbert Simon's elusive “common denominator” for reconciling the “is” and “ought” components of decision processes and their underlying preference structure (Administrative Behavior, 4th ed., 1997); for illustration, we use the SCaBR (Searing Case-Based Reasoning) method in the framing and analysis of a sample case study in multi-tiered optimizing and non-optimizing decision scenarios. We find that not only are factual and nonfactual components both quantifiable and comparable, but that such insight provides needed explanation of human decision evolution and the transitivity of preferences.

(48) Multiple aspiration levels in decision under risk

Diecidue, Enrico (INSEAD)

Aspiration levels and their impact on decision making have long been discussed (Lopes 1987, 1996). Payne (2005) showed that aspiration levels and the probability of success and failure (i.e., probability that the aspiration will be reached and probability that the aspiration will fall short of, respectively) are a relevant aspect of decision making. We develop a model that takes these aspects and the multiplicity of aspiration levels into account. We investigate the relation of this model with cumulative prospect theory (Kahneman and Tversky 1992) and with the ideas of “goals and plans” in decision making (Krantz and Kunreuther 2007).

(49) Risk Auctions: Novel Mechanisms for Eliciting Risk Aversion Coefficients and the Impact of Probability vs. Money Framing

Olivola, Christopher Y. (University College London); Wang, Stephanie W. (California Institute of Technology)

We introduce, test, and compare two novel auction-based experimental methods for eliciting risk aversion coefficients. In these “risk auctions”, participants bid the smallest sum they would prefer receiving with a given probability -or- the smallest acceptable probability of obtaining a reward, rather than receive a smaller, certain payoff. The lowest bidder receives the uncertain reward (i.e., a gamble); all other bidders receive the sure payoff. These auctions offer important advantages over other methods of elicitation. In addition, we compare how risk preferences vary depending on whether the auction focuses participants' attention on the probabilistic or monetary dimension of gambles.

(50) Revisiting the Gains-Loss Separability Assumption in Prospect Theory

Por, Han-Hui (Fordham University); Budescu, David V. (Fordham University)

Prospect theory assumes that people encode outcomes as gains/losses. The subjective value of mixed prospects is assumed to be the sum of their corresponding positive and negative components. Previous research (Wu & Markle, 2008 using choices; Budescu & Templin, 2009 using Certainty Equivalents) found different rates of violations of this assumption. We report a new study using both elicitation methods and randomly selected prospects and. Overall, we found 46.5% of the choices are consistent with the gains-loss separability assumption and 13.7% violate it (39.8% are indeterminate). Interestingly, the pattern of violations observed in the two methods is different.

(51) Levels of Theory-of-Mind Reasoning in Competitive Games

Goodie, Adam S. (University of Georgia); Doshi, Prashant (University of Georgia); Young, Diana L. (University of Georgia)

The literature on recursive reasoning (“I think that you think that I think”) is pessimistic. Individuals have attributed little strategic reasoning to others, performing well against simulated non-strategic opponents, and learning slowly and incompletely against strategic opponents. In two studies, we replicated these results with a previously used game; but, with a game that was

made competitive and simpler by having a fixed-sum structure, these results reversed. Against a strategic opponent, participants performed well, whereas against a non-strategic opponent they learned optimal responding slowly and incompletely. Thus, individuals may be less prone to underestimate their opponents than was previously held.

(52) Visual Attention In Mixed Gambles: Process Data and Choice Behavior

Jarnebrant, Peter (Columbia Business School); Johnson, Eric J. (Columbia Business School)

Decision process behavior has been studied widely in the process tracing literature, in particular in the investigation of preference reversals for gambles. Little attention, however, has been given the relation between the process data, and the ultimate outcome of the process, i.e., acceptance or rejection of the gamble. In two studies of mixed gamble choices, we measure as well as manipulate the decision maker's acquisition of information about the gamble. We find, as expected, that acquiring gain [loss] information increases [decreases] acceptance; opposite to expectations we find that the impact of gain information is stronger than that of loss information.

(53) Predecisional Distortion in Multiple Domains of Risky Choice

Miller, Seth A. (The Ohio State University); DeKay, Michael L. (The Ohio State University)

Evaluations of outcomes and probabilities for risky monetary gambles are often distorted in the direction of currently leading preferences, yielding significant impacts on final choices. This study examined risky choices in monetary and non-monetary domains (e.g., medical decisions, music downloads, etc.). Repeated-measures linear and logistic regressions indicated that manipulating the order in which information was presented affected predecisional distortion and final choices. Greater proportions of participants ultimately chose the initially preferred alternative, with final preferences being partially mediated through predecisional distortion. These effects were robust across the domains examined and distortion was comparable to that observed in monetary gambles.

(54) A Computational Model to Incorporate Non-commensurate Choice Options

Koop, Greg J. (Miami University); Bristow, R. Evan (Miami University); Thomas, Robin D. (Miami University); Johnson, Joseph G. (Miami University)

Decision field theory (DFT) successfully models the dynamic, stochastic nature of human decision making, yet it still requires choice options that differ only in the levels of identical attributes. We extend the scope of DFT to apply to decisions involving non-commensurate options by incorporating concepts of Coombs' ideal point theory and similarity scaling of options via multidimensional scaling. We also entertain two possible mechanisms for producing rank order preferences, rather than just a choice response, from DFT that differ with respect to the choice architecture at the time of response generation.

(55) Impact of evidence format on judgments of probability and verdict: Accounting for the "Wells Effect"

Shoots-Reinhard, Brittany (The Ohio State University); Arkes, Hal (The Ohio State University); Mayes, Ryan (The Ohio State University)

Prior research has shown an astonishing disconnect between jurors' judgments of probability of guilt and their verdict (i.e., the "Wells effect"). Probability judgments generally follow from statistical evidence. However, verdicts can be influenced by evidence format, such as whether the evidence pertains to a base rate or witness reliability. In two studies we showed that people were less likely to award damages in cases with base rate evidence (e.g., percentage of buses using a road) than statistically identical reliability evidence (e.g., percentage of times a witness was accurate), even though probability estimates appropriately tracked both types of evidence.

(56) Soundness conditions for prescriptive decision analysis

Wallace, Richard J. (University College Cork); Ashikhmin, Ilya (Institute for Systems Analysis)

Methods of prescriptive decision analysis involve both formal methods and judgmental capacities of the (human decision maker. As a consequence, these methods must meet two kinds of soundness conditions, one related to formal adequacy, the other to the correspondence of models and methods with actual human capacities, (which is distinct from "descriptive adequacy"). This means that although such methods give rise to preference orderings that in a deep sense are 'artificial', guidelines are still needed to establish what is reasonable. The purpose of this work is to lay out such guidelines and illustrate some of their implications in practice.

(57) Decision Analysis by Proxy for the Rational Terrorist

John, Richard (University of Southern California, Dept of Psychology); Rosoff, Heather (University of Southern California, CREATE)

This paper describes a methodology for representing terrorist preferences for alternative modes of attack. The model includes multiple and conflicting objectives related to the attack, attitudes toward risk, trade-offs among various objectives, and

uncertainty about attack success. The methodology utilizes judgments from experts knowledgeable about terrorist motivations and beliefs to provide assessments of relevant terrorist leader uncertainty, as well as uncertainty in their own knowledge about terrorist beliefs and values. A multi-attribute utility model is embedded within a simulation model that generates risk profiles for each attack strategy, as well as probabilities that terrorist leader will select each attack strategy.

(58) Response time methodology for testing between stochastic models of decision making

Fific, Mario (Max Planck Institute for Human Development); Rieskamp, Jörg (University of Basel)

There is a growing interest in process tracing techniques as a basis for comparing different decision making models. Such a methodology, known as systems factorial technology (SFT), is being developed to diagnose whether processes are organized in serial or parallel mental architectures, and whether a stopping rule is exhaustive or self-terminating. Using the joint analysis of both choice probability and reaction time, collected in a repeated gambling task, we compared stochastic versions of several prominent decision making models, such as the cumulative prospect theory, priority heuristic, expected value theory and logical rule-based model.

(59) Selfish Social Connectors, Their Decisions to Bridge Social Actors and Build Network Connections

Anik, Lalin (Harvard Business School); Norton, Michael I. (Harvard Business School)

Aiming to bridge the gap between social structure and the value of relationships, we investigated people's decisions to create network connections. We showed that "social capitalists" get more utility out of making connections than others. We hypothesized that people's tendency to construct ties strongly impacted the personal and social benefits they received as well as their preferences for social engagements. In six separate studies, we explored how people's perceptions of how well they built connections, as well as their specific space in the network structure impacted these individuals. We manipulated the formation of connections to distinguish the more influential connectors.

(60) Imagining a Crowd Within

Yeomans, Mike (University of Chicago); Soll, Jack (Duke University); Koehler, Derek (University of Waterloo)

Many judgments and decisions are susceptible to failures of imagination ñ a "narrow frame" of reference informing a decision (Larrick, 2009). Previous studies have tapped a "crowd within" (Vul & Pashler, 2008) to lessen the inherent limitations of a single viewpoint. The current study examines whether imagining the perspective of others (e.g. "what would Ariely do?") can broaden frames. Some subjects imagine how three people they know would rate 40 hollywood movies, while others imagine only their own ratings. All then estimate the mean and distribution of the movies' ratings on imdb.com, a popular website.

(61) Comparing estimation strategies in real-world environments

Woike, Jan Kristian (University of Lausanne); Hertwig, Ralph (University of Basel Hoffrage, Ulrich (University of Lausanne)

Estimating quantities, from future values of stocks to waiting times at check-outs, is an important everyday task. Across several dozen real-world environments drawn from manifold domains, we analyzed the performance of estimation strategies in an extensive simulation study. We compared two classes of models: one included computationally complex models such as multiple regression and CART, the other included psychologically plausible and computationally simpler strategies such as QuickEst and the Mapping Model. We report the strategies' ability to generalize from small training sets to new data (robustness) and explore their ability to exploit statistical structures in the environments (ecological rationality).

(62) Do we underestimate the validity of linear expert models?

Kaufmann, Esther (University of Mannheim); Wittmann, Werner W. (University of Mannheim)

Linear expert models of judgment are powerful tools for studying decision making. Psychological research shows that linear models derived from judges' decisions are usually more valid than the judge. Hence, in our talk we will overview previous reviews on expert models and their evaluation for validity, leading to a meta-analytical comparison of a subsample of lens-model studies on a) task content, b) type of criteria (subjective vs. objective), and c) judges' expertise-level. Our analysis clearly supports the increased validity of expert models and implies that their success is actually underestimated.

(63) Improving Estimation Accuracy through Sequential Adjustment

Luan, Shenghua (Singapore Management University)

Estimating a criterion variable's value based on multiple cues can be a challenging task. In this study, we propose a simple way to improve estimation accuracy: Instead of seeing all cues' values at once before coming up with one single estimate, view each of them piecemeal and estimate at every step. The efficacy of this method was tested in two real-world tasks, one about estimating prices of diamonds and the other fuel efficiency of cars; and in both novices and experts. Compared with the "all-at-once" method, we found that the sequential one could improve both groups' estimation accuracy significantly.

(64) Modeling Decision Making and Cognitive Performance in the Dynamic Stock-Flow Task

Ghaffarzadegan, Navid (University at Albany - SUNY); Vakili, Keyvan (Rotman School of Management, University of Toronto)

Data from Lebiere et al. (2009) shows subjects have a great deal of difficulty in learning the Dynamic Stock and Flows Task. In this paper we introduce a simulation model that considers an analytical and an intuitive problem solving algorithms. With the combination of these modes we address major issues observed in the data and support our arguments by replicating decision making behavior in individual and aggregated level. Specifically, we argue that people can be trapped in one of the modes as modeled in the paper and never find a way to move to the correct solution.

(65) Descriptions, Experiences, and Memories: The Effects of Presentation and Representation on Choice

Koop, Gregory (Miami University); Johnson, Joseph G. (Miami University)

The “gambling metaphor” underlying the majority of decision research is often criticized, yet remains the dominant paradigm. Recently, researchers have contrasted gambles that are “described” with those that are “experienced” through sampling. Others have compared “memory-based” decisions to those among described alternatives. We have developed a unique paradigm that allows for concurrently investigating “described,” “experienced,” and “memory-based” decisions in a single context (a mock fantasy football league). Additionally, we use diagnostic stimuli and process-tracing measures to infer strategy use in these three conditions. We present empirical results that illuminate the differences between these formats, and offer a unifying theoretical framework.

(66) Modeling Threshold Learning with Incomplete Feedback

Ghaffarzadegan, Navid (University at Albany (SUNY)); Stewart, Thomas R. (University at Albany (SUNY))

Most studies of decision threshold learning assume full feedback conditions, that is, regardless of the decision made, feedback is always provided. However, for many detection and selection problems, feedback may be available only on some of the trials (partial feedback) or may be conditional on the decision made, i.e. feedback may be available only for positive decisions, e.g. if an applicant is admitted or hired (conditional feedback). The data from selection and detection experiments shows that people behave differently under different feedback conditions and for different base rates. We develop a simulation model to investigate and explain these differences.

(67) The 'side-effect' effect, intentionality judgments, and motivated cognition

Fernandez-Duque, Diego (Villanova U.); del Rio, Victoria (Villanova U.); Kurti, Allison (Villanova U.); Hughes, Matthew (Villanova U.); Todd, Allison (Villanova U.)

People act in pursuit of goals, but sometimes their actions have other consequences along the way. Such side effects are judged to be intentional if harmful but unintentional if beneficial (Knobe, 2003). Is this asymmetry eliminated when people judge the side effects of their own actions, instead of the actions of others? Are harmful side effects judged as less intentional when paired with altruistic goals? In two experiments using vignettes, we have found little evidence of such modulations. We discuss these findings in relation to theories of motivated cognition.

(68) Forming Consistent Stories During Decision Making by Reinterpreting or Discounting Evidence: An Agent-Based Model

Chen, Lydia L. (University of Michigan)

Decision makers tend to prefer options whose supporting evidence form consistent stories. Instead of simply rewarding consistent evidence, however, people often reinterpret and discount incoming evidence to make them consistent with their favored options. Why would they do this, given the risk to decision accuracy? Controlled experiments with an agent-based model demonstrated that reinterpreting and discounting inconsistent evidence is an efficient way to achieve consistent stories, provided that the processing order of evidence is balanced. Compared to reinforcement alone, discounting and reinterpretation increased story consistency and decision speed. However, weaker stories could beat stronger stories simply by being presented earlier.

(69) The Complexities of Selective Information Exposure

Scherer, A.M. (University of Iowa); Windschitl, P.D. (University of Iowa); Smith, A.R. (University of Iowa); Rose, J.P. (University of Iowa)

Research on selective information exposure has primarily emphasized the role of choice and focused on motivation to reduce cognitive dissonance as the primary mechanism that leads to selective exposure. It is possible that pre-existing preferences, outcome desirability, and cognitive biases such as a positivity bias and focalism may play roles in selective exposure effects. Results from a study in which choice and desirability were manipulated demonstrate that while choice is important, other mechanisms can produce a selective exposure to information when no choice is made.

(70) Relational Accounting and Social Motives in Negotiation

Bottom, William (Washington University); Mislin, Alexandra (University at Buffalo, State University of New York); Boumgarden, Peter (Washington University)

We propose a model of a negotiator who maintains relational accounts regulating social exchange. The accounts generate emotional response comprising motives to compete, cooperate, or self-sacrifice. We manipulated Thaler's mental accounting scenarios and assessed subjects' emotional reactions. Having found evidence that emotional response mediates the impact of mental accounts on a widely used measure of social motive we conducted additional studies on bargaining behavior. Social motive partially mediates the impact of mental accounts on bargaining and on the implementation of negotiated agreement. Implications of mental accounting for the development of a general, multi-level behavioral theory of negotiation are considered.

(71) I am not angry with you, I am disappointed: The interpersonal effects of anger and disappointment in bargaining

Lelieveld, Gert-Jan (Leiden University); Van Dijk, Eric (Leiden University); Van Beest, Ilja (Leiden University); Van Kleef, Gerben A. (University of Amsterdam); Steinel, Wolfgang (Leiden University)

In negotiations, disappointment may share the advantages of anger, but not its disadvantages. Anger has been shown to be detrimental a) when one has low power and b) when it is directed at the person (instead of the offer). Experiment 1 showed that participants offered more to disappointed opponents than to angry opponents when they negotiated with low power opponents. In Experiment 2 we showed that anger directed at the offer elicited higher concessions than anger directed at the person. The reverse was true for the effects of disappointment. Disappointment paid because it evoked feelings of guilt in opponents.

(72) Can Nervous Nelly Negotiate? How Anxiety Causes Negotiators to Exit Early and Make Steep Concessions

Wood, Alison (Wharton); Schweitzer, Maurice (Wharton)

Across four studies, we demonstrate that anxiety is both commonly associated with negotiations and harmful to negotiator performance. In our experiments, we randomly induced either low anxiety or high anxiety. Compared to negotiators experiencing low levels of anxiety, negotiators experiencing high levels of anxiety make steep concessions and exit bargaining situations early. The relationship between anxiety and negotiator behavior is moderated by negotiator self-efficacy.

(73) Is emphasizing losses (vs. gains) better in negotiations with multiple issues?

Appelt, Kirstin C. (Columbia University); Higgins, E. Tory (Columbia University)

When presented with two differently framed issues (one loss issue and one gain issue), negotiators emphasizing their loss issue are more demanding, and reach better negotiated outcomes, on this issue. In other words, there is an interaction between role and emphasized issue such that candidates emphasizing not losing hours (vs. gaining salary) are more demanding and do better on hours, whereas recruiters emphasizing not losing salary (vs. gaining hours) are more demanding and do better on salary. No effects were found for the gain issue. Results are discussed in the context of asymmetric weighting of losses versus gains.

(74) Gamer Show Experiences in Non-cooperative Bargaining

Szanto, Richard (Corvinus University of Budapest)

In the fall of 2008 a Hungarian television channel aired a gamer show where players after answering trivia questions had to agree on an unfair division of the sum of money they earned. Players had hundred seconds to reach an agreement and as time evolved the payoffs of the players were decreasing continuously. The game presented above shows similar characteristics to non-cooperative bargaining games. 36 bargaining processes were registered and coded. Findings suggest a very significant gender effect. Yet merit (i.e. how many correct answers contestants gave to the trivia questions) does not seem to be an important factor.

(75) You'd better think?! The influences of breaks and social motivation on negotiation behavior and outcomes

Harinck, Fieke (Leiden University); De Dreu, Carsten K.W. (University of Amsterdam)

We investigated how the thought processes during breaks in negotiation influence negotiation processes, and tested two competing hypotheses, based on the Motivated Information Processing in Groups Model and Unconscious Thought Theory. Fifty-one dyads with either pro-social or pro-self motivation engaged in a multi-issue negotiation. They were interrupted halfway to either reflect on the negotiation or to do a distracting task. In line with the MIP-G model, pro-social negotiators developed more cooperative attitudes, engaged in more pro-social behavior, and impasse less often than pro-self negotiators in the reflect break condition; no such effects were observed in the distraction break condition.

(76) Strategic negotiation behaviors, self-inference, and the perception of negotiation outcomes

Swift, Samuel A. (Tepper School of Business, Carnegie Mellon University)

Research on self-inference processes have shown how powerful a person's actions can be in influencing their attitudes and beliefs. While most previous research artificially constrains behavior, the negotiation context provides a naturalistic environment

to study the self-inference process by creating incentives for strategic rather than genuine behaviors. Previous work focuses on beliefs about the self while this work shows that the perception of economic outcomes can be affected as well. Participants in buyer-seller negotiations in which strategic behavior was unconstrained report lower satisfaction and decreased total utility compared to control condition negotiations in which persuasive behaviors were not an option.

(77) Distinct neural correlates for the processing of magnitude, probability and uncertainty of potential monetary gains and losses

Canessa, Nicola (Universita' Vita-Salute San Raffaele, Milan, Italy); Chierchia, Gabriele (Universita' Vita-Salute San Raffaele, Milan, Italy); Motterlini, Matteo (Universita' Vita-Salute San Raffaele, Milan, Italy); Baud-Bovy, Gabriel (Universita' Vita-Salute San Raffaele, Milan, Italy); Cappa, Stefano (Universita' Vita-Salute San Raffaele, Milan, Italy)

Decision-making involves the weighting of magnitude, probability and uncertainty of potential gains/losses. Neurophysiological investigations highlighted the role of mesolimbic dopaminergic neurons in coding magnitude and probability (and their integration in expected-value) as well as uncertainty, but related neuroimaging studies in humans have provided largely inconsistent results. We addressed this issue by using functional-Magnetic-Resonance-Imaging and a parametric design that independently varied both reward-magnitude (from 1 to 100\$) and probability (from 1% to 100%) for both wins and losses. Results highlighted that the neural processing of the basic decision-parameters involves specific regions involved in reward-anticipation, emotional and cognitive processing, and conflict monitoring.

(78) An fMRI Study of Ecological Rationality: Group Size, Kinship, Group Composition and Risky Choice

Wang, X.T. (University of South Dakota); Zheng, Hongming (Chinese Academy of Sciences); Zhu, Liqi (Chinese Academy of Sciences)

We explored brain activation patterns of 23 Chinese participants when they made risky choices between a sure option and a gamble of equal expected value in different hypothetical social group contexts. The fMRI and behavioral results showed that small-group and kinship cues activated more limbic structures of the brain and resulted in a stronger risk seeking preference. ACC plus frontal lobe activations reflected a conflict in decision preference when the group at risk was a heterogeneous mixture of strangers and kin. Overall, our findings lend support to the notion of domain-specific brain modules for evolutionally recurrent and ecologically relevant tasks.

(79) Individual Differences in Social Comparison and Decision Making

Corser, Ryan (University of Toledo); Jasper, J.D. (University of Toledo); Rose, Jason (University of Toledo)

Research shows that mixed-handers more so than strong-handers can maintain multiple and oftentimes opposing representations. Because of this, mixed-handers demonstrate greater Stroop interference and better appreciate visual paradoxes. The current study extended this work into paradigms involving the comparison of self versus others. In Experiment 1, subjects rated their proficiency on a number of skills; in Experiment 2, subjects estimated their likelihood of winning a trivia game. Results indicated that, as predicted, mixed-handers show smaller above- and below-average and shared circumstance effects. Theoretical implications as well as ongoing work on brain asymmetry, egocentrism, and decision-making will be discussed.

(80) Policy Bundling to Overcome Loss Aversion: A Method for Improving Legislative Outcomes

Milkman, Katherine L. (Wharton); Mazza, Mary Carol (Harvard Business School); Shu, Lisa L. (Harvard Business School); Tsay, Chia-Jung (Harvard Business School); Bazerman, Max H. (Harvard Business School)

Policies that would create net benefits for society often lack legislative support because losses loom larger than gains psychologically. To reduce this harmful consequence of loss aversion, we propose a policy bundling technique in which related bills with both costs and benefits are combined. We confirm across four legislative domains that this bundling technique increases support for bills that have both costs and benefits. We demonstrate this effect is due to changes in the psychology of decision making rather than voters' willingness to compromise.

(81) Biases Present in State Standard Setting Methods

Templin, Sara (University of Alabama)

No Child Left Behind mandates that all students be "proficient" in reading and math by 2014. Individual states are responsible for setting these standards and ideally we would expect these standards to be based solely on a student's ability. However, when setting these standards, states often rely on ratings provided by teachers. Using the standard setting data from a Midwestern state (representing seven grade levels in both reading and mathematics), we show that proficiency ratings are subject to anchoring effects (based on average classroom ability) and rater biases (differential scale usage), leaving a student's proficiency to chance rather than ability.

(82) A Simple Remedy for Overprecision in Judgment

Haran, Uriel (Carnegie Mellon University); Moore, Don A. (Carnegie Mellon University)

Overprecision is considered the most robust type of overconfidence. This paper offers a novel method which can significantly reduce this bias and offers some insight into its underlying mechanism. Results of two lab studies showed that (1) overprecision is not driven by anchoring, as participants' confidence intervals were not affected by estimating point values prior to these intervals, and (2) overprecision is significantly reduced by forcing participants to consider the entire range of possible values, divided into equal intervals. This novel method, called Subjective Probability Intervals, also reduced overprecision in subsequent estimates made using the conventional, 90% confidence interval method.

(83) Likelihood Judgment and Other Regarding Behavior

Peterson, Nathaniel (Carnegie Mellon University); Weber, Roberto (Carnegie Mellon University)

The goal of this research is to help better understand how individuals form their perceptions of what is likely to happen to others and how such perceptions influence their willingness to pay for stochastic improvements to others' welfare. Using laboratory experiments, we test the role of social distance and control both for how much individuals care about others' outcomes, when consequences are certain, and for the actual likelihood of those outcomes. Applications include helping to understand why people are often unwilling to pay much for other-regarding preventive causes.

(84) Time Horizons in Interdependent Security

Hardisty, David (Columbia University); Kunreuther, Howard (University of Pennsylvania); Krantz, David (Columbia University); Arora, Poonam (Columbia University)

Many real-world social dilemmas require interdependent players to protect against a large loss that has a low annual probability of occurring. Examples include protecting against terrorism (shared border security), protecting against disease outbreak (think of bird flu), or climate change. Decisions on whether to invest in protection may be made year by year, or investment may be precommitted for a number of years. Normally, when an outcome is delayed, the subjective uncertainty goes up. However, we hypothesized and found that with recurring low probability events, increasing the time horizon would increase the subjective probability and thus (paradoxically) increase investment rates.

(85) The joint effect of description and experience

Erev, Ido (Technion); Ert, Eyal (Harvard)

The paper explores the joint effect of description and experience on choice behavior in different settings. In the basic control condition the participants were asked to select once between "0 with certainty", and a "21 outcomes risky gamble." The outcomes and their probabilities were precisely described. In the experimental condition the participants were encouraged to sample the risky prospect before reaching their decision. The results reveal large differences between the two conditions: The participants behaved "as if" they overweight rare events in the control (description only) condition, and underweight rare events in the experimental (description & sampling) condition.

(86) On the decision to explore

Weiss, Kinnert (Technion); Erev, Ido (Technion)

The decision to explore is studied in simple experiments. In each trial the participant is asked to select one of 100 unmarked keys that are presented in a matrix on a computer screen. Each choice leads to an immediate presentation of the trial's payoff on the selected key. The results reveal robust deviations from optimal exploration that reflect underweighting of rare events. The participants exhibited under-exploration when the common outcome of exploration was disappointing, and over-exploration when the common outcome of exploitation was disappointing. This pattern can be captured with a model that assumes reliance on small samples of experiences.

(87) Just How Comparative Are Comparative Judgments?

Radzevick, Joseph R. (Carnegie Mellon University); Moore, Don A. (Carnegie Mellon University)

Some have claimed that comparative judgments are not really comparative at all, but that instead tend to overweight one of the two elements that underlie the comparison (i.e., differential weighting). Across three studies, we investigate the nature of comparative judgment by examining their speed and efficiency. We find only limited support for previous claims. While we replicate differential weighting, this effect largely disappears with a different elicitation format. Furthermore, evidence for differential weighting is absent in reaction time data. Our findings suggest that a simplification of theories of comparative judgment may be in order.

(88) Out of Sight, Out of Mind: On the Irrational Side of Egocentrism in Social Comparisons

Chan, Steven (New York University); Chambers, John R. (University of Florida); Kruger, Justin (New York University)

When people compare themselves with others, they focus on their own characteristics more than on those of others. Consequently, they tend to overestimate their comparative standing for instances of high absolute standing (driving a car) and underestimate them for low ones (programming a computer). In contrast to recent normative accounts of myopic comparisons, this research explored whether this egocentric tendency is partly explained by greater salience and accessibility for self versus other information. We measured and manipulated this self-other accessibility difference and demonstrated stronger above- and below-average effects when it was large and weaker effects when it was small.

(89) Nonselective Optimism and Pessimism among Professional Traders and Stock Market Analysts
Klar, Yechiel (Tel Aviv University); Pollack, Yael (Tel Aviv University)

When people compare themselves with others, they focus on their own characteristics more than on those of others. Consequently, they tend to overestimate their comparative standing for instances of high absolute standing (driving a car) and underestimate them for low ones (programming a computer). In contrast to recent normative accounts of myopic comparisons, this research explored whether this egocentric tendency is partly explained by greater salience and accessibility for self versus other information. We measured and manipulated this self-other accessibility difference and demonstrated stronger above- and below-average effects when it was large and weaker effects when it was small.

(90) The Role of Mental Representation in Experienced-based Choice
Camilleri, Adrian R. (UNSW); Newell, Ben R. (UNSW)

Research has observed that different choices can be made about structurally identical risky decisions depending on whether information about outcomes and their probabilities are learned by description or experience. Recent evidence has been equivocal with respect to whether this phenomenon is entirely an artefact of biased samples. The current experiment elucidates the controversy by examining decision maker's mental representations, using either verbal or non-verbal judgment probes. We find that: (1) judgment accuracy depends on how options are learned about and how estimates are probed, and (2) that there may indeed be an explanatory role for the level of mental representation.

(91) One man's trash is another man's treasure: Context dependency in decision making under risk
Ungemach, Christoph (University of Warwick); Stewart, Neil (University of Warwick)

Dominant theories of risky choice assume that monetary amounts are directly transformable into subjective equivalents using psychoeconomic functions. We investigated whether this transformation is really independent of the distribution of similar attribute values in memory. In exchange for their receipts we offered supermarket customers the opportunity to draw a ticket from one of two lotteries. It could be shown that preference for the risky lottery was related to the distribution of item prices bought prior to choice. The higher the proportion of prices falling within the two lottery wins, the more likely were the participants to choose the risky option.

(92) Misperception of randomness decreases prediction accuracy
Scheibehenne, Benjamin (Indiana University); Wilke, Andreas (Konrad Lorenz Institut); Todd, Peter M. (Indiana University)

Detecting sequential dependencies is the basis for discovering useful predictable patterns in the environment. To test this ability, we had participants repeatedly choose between betting on the next outcome of a random or an autocorrelated sequence, presented next to each other. Our results indicate that most people preferred betting on a random sequence over a negatively autocorrelated one and thus missed the opportunity for above-chance payoff. This contradicts the idea of a general human ability to recognize patterns and indicates a tendency to perceive clumps. Furthermore, in line with this tendency, most participants used win-stay/loose-shift as a default strategy.

(93) Conditions leading to biases in favor of self-selected hypotheses
Whitman, Jennifer C. (University of British Columbia); Woodward, Todd S. (University of British Columbia)

In this study we investigated the conditions that can lead us to be biased towards endorsing internally generated interpretations more readily than externally generated ones. In a probabilistic reasoning task, we required participants to rate the probability of a focal hypothesis relative to a set of alternate hypotheses. We found that they judged self-selected focal hypotheses to be more probable than externally selected ones. If evidence for the focal hypothesis was high, the bias in favor of self-selected hypotheses was strongest if evidence for the alternate hypotheses was also high.

(94) Testing Different Accounts of Insensitivity to Answer Diagnosticity
Rusconi, Patrice (University of Milan-Bicocca); McKenzie, Craig R. M. (University of California, San Diego)

Previous studies showed how people are insufficiently sensitive to the differential informativeness of different answers to the same question. We compared different accounts of this phenomenon. We devised two studies (N = 142) in which participants

estimated the posterior probability given an answer to a question about the presence of a feature. Participants' estimates mostly fell between the normative conditional probability and the normative posterior probability, showing that when revising their beliefs people are not determined solely by the given conditional probabilities (as implied by the inverse fallacy and matching accounts), but are also sensitive to the normative posterior probabilities.

(95) Deconfounding recognition and recall in random sequence generation

Heyman, James (University of St. Thomas); Zelubowski, James (University of St. Thomas)

Previous research has shown that, in general, people are randomness-challenged. This has largely been attributed to short-term memory (STM) biases. However, these findings have potentially been influenced by the most common elicitation method, which actually ascribes the measured behavior entirely to STM while not accounting for the ability for people to explicitly look at previous choices. To control for this confounding we had 181 respondents generate a simulated set of random coin flips in one of two methods. The results show that the negative effect of STM is smaller than had been previously reported.

(96) Not the base rate but the imbalanced structure does matter

Hattori, Masasi (Ritsumeikan University); Nishida, Yutaka (Osaka University)

Two experiments examined Hattori and Nishida's (2009) equiprobability hypothesis that base rate tasks are difficult not because people tend to ignore base rate information, but because their default equiprobability assumption conflicts with the task structure. In Experiment 1, the degree of imbalance in structure was manipulated and the results indicated that as the task structure approaches to people's assumption, their performance improved. In Experiment 2, a new type of base rate task (with an inverse imbalanced structure and a high base rate) employed and the results showed that the imbalanced structure rather than a low base rate impeded Bayesian inference.

(97) Strategies for Co-variation judgments

Gilkey, Justin M. (Bowling Green State University); Anderson, Richard B. (Bowling Green State University)

Previous research suggests that decision-makers can use at least two judgment strategies when assessing population correlations from sample data: a descriptive strategy and an inferential strategy. Furthermore, research suggests that environmental constraints, such as the task environment, might influence which of these strategies a decision-maker utilizes. Participants in the current experiment judged the strength of correlations via both a rating and a frequency estimation task. Preliminary results suggest individual differences in decision-maker's confidence ratings about their judgments may predict the direction of the relationship between n-per-sample and subjective correlations in rating tasks but not in frequency estimation tasks.

(98) Assessing Joint Distributions via Isoprobability Contours

Marcus, James C. (Fordham University); Budescu, David V. (Fordham University); Abbas, Ali A. (University of Illinois)

We examine a new method for assessing joint distributions by tracing isoprobability contours (points with identical cumulative probabilities) inferred from preferences between binary gambles. We assess 25% and 50% isoprobability contours for two domains SAT-V and SAT-Q scores and height and weight. We elicit contours in each domain on two separate occasions (several days apart). For some subjects we assess the same contour (25% or 50%), and for others we assess different contours across sessions. To determine the quality of the results we analyze the monotonicity and internal consistency (across sessions and contours) of the subjects' judgments.

(99) Encounter frequency in the small number range

Obrecht, Natalie A. (Rutgers University); Chapman, Gretchen B. (Rutgers University)

We asked subjects to judge how likely an event is based on multiple percentages and their associated sample sizes (e.g. 10% of 200 hyenas had short fur, 15% of 100 had short fur, what are the changes that a hyena will be have short fur?). Obrecht et al. (2009) showed that laypeople give equal weight to such percentage data, ignoring differences in sample size. We found that sample size neglect is reduced for subjects higher in numeracy when the provided percentages describe extremely small samples, such as 100% of 1, compared to when they summarize higher magnitude sample sizes.

(100) Subjective Integration of Probabilistic Information from Description and from Experience

Shlomi, Yaron (University of Maryland)

This research compares normative and subjective principles of integrating description- and experience-based probabilistic information. Participants in three experiments estimated the proportion of red balls in a bag on the basis of observing a sequence of draws (experience) and receiving a summary of an independent sample (a description). Subjective integration was more sensitive to experience than description in a manner that depended on source presentation sequence, description format and perceived description trustworthiness. Findings have implications for information integration models, for interpreting the

description-experience gap in risky choice, and for developing decision aids.

(101) Do subjects maximize gain in search? Comparison of visual and nonvisual sequential decision making tasks

Pedersini, Riccardo (Harvard Medical School & Brigham and Women's Hospital); Morvan, Camille (New York University); Maloney, Laurence T. (New York University); Horowitz, Todd S. (Harvard Medical School & Brigham and Women's Hospital); Wolfe, Jeremy M. (Harvard Medical School & Brigham and Women's Hospital)

We compared two sequential decision making tasks, a speeded visual search and an analogous unspeeded economic task. In both tasks the goal was to find a target among distractors in a series of visual displays. Since half the displays contained no target, the subject's challenge was to decide whether to break off the search in one display and go on to the next. Performance in the visual search task was near optimal. Surprisingly, performance in the superficially easier economic task was markedly suboptimal: subjects stopped searching too soon and were influenced by the outcomes of recent trials.

(102) Probability weighting in risky choice: Affect and probability format

Suter, Renata (University of Basel); Pachur, Thorsten (University of Basel); Hertwig, Ralph (University of Basel)

Rottenstreich and Hsee (2001) proposed that risky choice between affective non-monetary prospects differs from risky choice between monetary prospects in terms of differences in how probabilities are processed. Berns et al. (2007), however, found a similar probability weighting function for non-monetary gambles as had been previously found for monetary gambles, suggesting no differences in the processing of probabilities. We directly contrasted probability weighting functions for monetary and non-monetary choices using a within-subject design. Moreover, we tested whether differences in the weighting function depend on whether probabilities are communicated numerically or graphically.

(103) Curiosity killed the cat, but what did it do to dissonance? Seeking counterfactual information

Summerville, Amy (Miami University)

After making a decision, how will individuals respond to the opportunity to learn about foregone alternatives? The model of regret-aversion (Zeelenberg, 1999) predicts that individuals are motivated to avoid counterfactual information in order to insulate themselves from potential regret. In contrast, I suggest that considering the theory of post-decisional cognitive dissonance (Festinger, 1957) leads to the prediction that individuals who are highly dissatisfied with their decisions will seek this information. In the current research, both negative outcomes and the experience of dissatisfaction increased such counterfactual-seeking; moreover, counterfactual-seeking was able to reduce dissonance.

(104) Regret in interpersonal and self contexts: US-Japan comparison

Komiya, Asuka (Kyoto University); Watabe, Motoki (Waseda University); Miyamoto, Yuri (University of Wisconsin Madison); Kusumi, Takashi (Kyoto University)

We conducted two experiments to investigate how contexts and cultures interact to influence the intensity of regret. In Study 1, Japanese and American undergraduates recalled their most regrettable experiences both in interpersonal and self contexts, and rated the intensity of their regret. In Study 2, Japanese and American students played roulette either in the interpersonal or self condition, and reported the intensity of regret they felt after losing. Both studies showed that in interpersonal situations, Japanese felt regret more strongly than Americans, whereas in self situations, Japanese felt regret as strongly as Americans. Contextual effects on regret are discussed.

(105) Modeling foregone payoffs in a sequential choice task

Frey, Renato (University of Basel); Rieskamp, Jörg (University of Basel)

When people decide repeatedly – for example choosing every month in which of several stocks to invest money – they may not only learn from outcomes of chosen alternatives, but also from outcomes of alternatives they did not choose, i.e. from foregone payoffs. We compared the predictions of three learning models (a standard reinforcement learning model, a temporal difference learning model, and a threshold model) in the devil's task (involving sequential choice either with or without information on foregone payoffs). The modeling suggests that learning should be faster in the presence of foregone payoffs.

(106) The role of feedback-induced anticipated regret in avoiding subsequent risks

Burson, Katherine A. (University of Michigan); Larrick, Richard P. (Duke University); Stornelli, Jason A. (University of Michigan); Witmer, Megan E. (University of Michigan)

In this research, we explore the role of anticipated feedback on anticipated regret and the consequences for subsequent choices. In a dissonance reduction paradigm, we show that in comparison to consumers expecting partial feedback (i.e. information on the chosen option only), consumers expecting full feedback (i.e. information about the selected alternative and foregone choices) experience more anticipated regret, and thus cannot reduce dissonance about their choice. In a consumption context, consumers who are anticipating full feedback on an initial choice (and hence regret) go on to select safer, conventional options in an

unrelated choice task.

(107) I choose certainty for me and uncertainty for you: the role of responsibility aversion in self/other framing
Leonhardt, James (University of California, Irvine)

In a hypothetical medical decision problem, participants choose between two certain options or an uncertain option; however, unlike the Asian Disease Problem the uncertain option does not offer the possibility of avoiding a loss altogether; rather the outcome of each option is known to be of equal value. When participants are choosing for themselves only 37% choose the uncertain option, but when choosing for an identified person "a university student with blonde hair named Sally Smith" 67% choose the uncertain option ($t(131)=2.847$, $p=.005$). Responsibility aversion is introduced to explain this self versus other framing effect.

(108) Looking Forward to Not Looking Back: The Role of Anticipated Regret in Work-family Conflict
Reb, Jochen (Singapore Management University); Bagger, Jessica (Sacramento State University)

Individuals often face conflicting time demands from family and work. In an experimental study we examined the role of anticipated regret in resolving instances of work-family conflict among 204 working parents. Drawing on both the work-family and decision-making literatures, we hypothesized and found that anticipated regret predicted work-family preferences. Furthermore, anticipated regret mediated more distal determinants of work-family preferences, in particular, work pressure, work centrality, and family centrality. These findings suggest that anticipated emotions play a significant role in how individuals resolve work-family conflict. Implications and future research directions are discussed.

(109) Egocentric predictions about other people's emotional states: When we don't project our own emotional experiences to others.
Kudo, Eriko (Tokyo Woman's Christian University)

People anticipate greater regret for losing by a narrow margin than a wide margin. In this study, participants who missed a reward by a narrow margin experienced regret but much less than they had expected. However, those participants didn't project their emotional states to others when asked to predict others' emotional states in the same situation. Their predictions didn't differ from those who not experiencing the event and had no chance of knowing their predictions were wrong. These results suggest that we egocentrically make predictions about others' emotional states not projecting our own unexpected feelings because we think our own experience is unique.

(110) Continuous vs. binary: On the compensatory strategies of judgments
Zhao, Jiaying (Princeton University); Oppenheimer, Daniel (Princeton University)

Many researchers have recently argued that people employ different judgment strategies in continuous as opposed to binary choice paradigms. We here report evidence that a single compensatory strategy might underlie both paradigms. Specifically, we find that predictions generated from judgments made in a continuous paradigm can predict binary judgments better than several prominent binary non-compensatory heuristics such as the recognition heuristic and the Take the Best heuristic (Gigerenzer & Goldstein, 1996; 1999). This finding has important implications for theoretical frameworks that rely on strategy switching such as the adaptive toolbox (Gigerenzer, Todd, & the ABC Research Group, 1999).

(111) My preference may not be my decision: Post-decisional dissonance and framing
Corbin, Jonathan (Appalachian State University); McElroy, Todd (Appalachian State University); Smith, Stephanie (Appalachian State University)

We examine how post-decisional dissonance influences the framing effect. We manipulated decisional perspective, having participants rate either their "preference" or "decision" of alternatives. We derived our predictions from post-decisional dissonance which proposes that after making a choice people experience dissonance. To alleviate this dissonance, people prefer their chosen alternative more and their non-chosen alternative less after the decision. Therefore, when presented with a framing task and asked to rate their decision people should experience cognitive dissonance and framing effects should be more robust than when people are asked to rate their preference between the alternatives. Our findings support this hypothesis.

(112) Parsing the cognitive stream: Partitioning of events as a factor in judgments under uncertainty
Brase, Gary L. (Kansas State University)

An ecological rationality approach to statistical reasoning hypothesizes a privileged status for frequency representations and an individuation principle to guide parsing of objects, events, and locations into easily countable units. In contrast, a heuristics and biases approach hypothesizes no privileged status for frequencies and a partition-edit-count principle for parsing sets. A series of experiments ($N=211$) demonstrate both that a key support for the partition-edit-count hypothesis is largely due to changes in the task question rather than partitioning manipulations, and a frequency presentation of the task directly improves performance.

These results favor an ecological rationality perspective and the associated frequency hypothesis.

(113) Misleading communication and biased evaluation of probabilities: The case of the ratio bias

Macchi, Laura (University of Milan); Bagassi, Maria (University of Milan); Passerini, Gabriella (University of Milan); D'Addario, Marco (University of Milan); Sala, Valentina (University of Milan)

In classical judgment and decision tasks, communicative heuristics, by processing intention and context, are often considered as obstacles to rational judgments. According to our alternative view, the obstacle is a text formulation inadequate to transmit the experimenter intention and the aim of the task. In this perspective, we investigate the ratio bias (Kirkpatrick & Epstein, 1992). According to us, the phenomenon is an effect of the experimental paradigm that transmits a misleading aim of the task, by inducing the equal ratio neglect. Four experiments provide evidence of our hypothesis. Through a pragmatic reformulation of classical problems the bias strongly decreases.

(114) Effects of Competition and Uncertain Evaluation on Performance

Hartzler, Beth (Bowling Green State University); Anderson, Richard (Bowling Green State University)

Kareev and Avrahami (2007) found that when two agents are competing on a simple task, those pairs working under low scrutiny perform significantly better than those working under high scrutiny. In the present experiment, the design of Kareev and Avrahami's study was adapted to include manipulation of the number of competing agents (either 2 or 40), and each agent's probability of winning (.5 or 1/n). Preliminary data indicate a greater practice effect for participants completing the task under low scrutiny than those completing the task under high scrutiny.

(115) Detecting varieties of cheating: An evolutionary algorithm or deliberate relevance seeking

Ayal, Shahar (Duke University); Klar, Yechiel (Tel Aviv University)

What kind of cheating-protection devices should consumers use to avoid being victims of fraud? Using the Wason selection task, we define three types of cheating. We use these varieties of cheating to juxtapose the cheating detection algorithm approach with an alternative relevance-seeking approach that relies on more flexible and deliberate thinking. The results show that our participants outperformed the evolutionary algorithm by looking for the most relevant cheating threats. These results suggest that efficient cheating detection cannot rely on an automatic algorithm, but rather requires flexibility and a thorough understanding of the situation at hand.

(116) Elements of Trust: Cost, benefit, and backward induction

Evans, Anthony (Brown University); Joachim Krueger (Brown University)

Backward induction predicts that trust should depend upon the incentives of the trustee to reciprocate. However, the current work demonstrates that trustors perceive the choice egocentrically (primarily in terms of potential costs and benefits). We report evidence that trust is evaluated in two stages: In the initial stage, the first mover assesses her own incentives. If the incentives to trust are considered sufficient, she then evaluates the perspective of the trustee (backwards induction). This process is supported by rates of trust and reaction time data.

(117) Does competition foster trust? The role of tournament incentives

Keck, Steffen (INSEAD, Decision Science Area); Karelaia, Natalia (INSEAD, Decision Science Area)

This paper reports experimental results from a sequential dyadic trust game where competition is operationalized by manipulating payoff schemes across four conditions. Trustors and trustees were rewarded based either on their absolute performance in the game (baseline condition) or on how well they have done relative to two other participants playing the game in the same role (competition conditions). We find that competition among trustors significantly increases trust. On the other hand, competition among trustees decreases reciprocity. There is no evidence that trustors anticipate this lower reciprocity.

(118) Influences of Personality and Situation on Behavior in Economic Games

Hoffmann, Mareike (University of Erfurt); Rockenbach, Bettina (University of Erfurt); Betsch, Tilmann (University of Erfurt)

Assuming behavior is a function of person X situation (Lewin, 1936), we analyzed decision making in a trust and a coordination game by simultaneously considering differences in personality traits and situational variables, such as differences in the regulatory focus. Personality was assessed with the 16-Personality-Factor-Test (Schneewind & Graf, 1998) and a self-report. Most notably, offers in the trust game were negatively influenced by the interaction between the trait vigilance and the prevention condition; back transfers were positively influenced by the interaction between the willingness to cooperate and the promotion condition. In the coordination game, hardly any behavioral effects were found.

(119) More Pain Less Gain: Social Preferences in the Allocation of Bads

Davis, Alexander (Carnegie Mellon University); Miller, John (Carnegie Mellon University); Weber, Roberto (Carnegie Mellon University)

Concern for fairness is significantly enhanced when people allocate bad compared to good resources. Survey and laboratory studies using the dictator game demonstrate that people are more willing to be fair or even prefer disadvantageous unfairness when allocating bads compared to goods. Almost no participants who behaved in a completely selfish manner when allocating financial gains were willing to behave selfishly when allocating a painful event, and many of these seemingly selfish people were willing to take more than half of the painful event on themselves. We argued that resource valence may greatly change the functional form of social preferences

(120) The effects of flood experience, perceptions and trust on flood protection purchase

Soane, Emma (London School of Economics); Schubert, Iljana (London School of Economics); Challenor, Peter (University of Southampton); Lunn, Rebecca (University of Strathclyde); Narendran, Sunitha (Kingston University); Pollard, Simon. Cranfield University

This paper examines public perceptions of flooding and considers how to develop communication strategies that will increase flood preparation. The research model was based on prior studies of flood experience, perceptions and trust in information sources. Participants were 2109 home owners who completed an online survey. Data showed that concern and receptiveness to information influenced the decision to protect the home. Further, personal responsibility for managing flood risk was associated with low levels of trust in government and regulators. Finally, few people chose to access additional information about flooding showing the need for focused information communication strategies.

(121) Disclosure drive: Understanding when and why people disclose private information

John, Leslie (Carnegie Mellon University); Loewenstein, George (Carnegie Mellon University); Acquisti, Alessandro (Carnegie Mellon University)

Much of the research on privacy focuses on people's perceptions of the costs of revealing information. Yet, there is ample evidence that people voluntarily reveal vast quantities of information, suggesting that there is an inherent desire to disclose. We propose that to understand information revelation, one must look at both sides of the equation -- the costs and the benefits. In two studies, we show that making disclosure salient facilitates information revelation when the desire to disclose is activated; the reverse effect occurs when the desire to protect one's privacy is activated.

(122) The Repugnance Effect: Money and Moral Transgressions

Atanasov, Pavel (University of Pennsylvania); Jayawickreme, Eranda (University of Pennsylvania)

We present evidence for a "repugnance effect" for transgressions committed in the presence of monetary incentives of various sizes. This effect follows an inverted V pattern. Specifically, we found that transgressions committed in the presence of a small monetary incentive were seen as significantly more offensive than transgressions committed without a monetary incentive or in the presence of a large incentive. This pattern was observed in both student (Study 1) and multinational (Study 2) samples. Study 3 suggested a role for moral emotions (specifically disgust) in this effect.