

2007 SJDM Conference POSTER TITLES LISTED BY SESSION

Session #1 w/ Continental Breakfast (Sunday, 8:30- 10:30am, Long Beach Convention Center, Grand Ballroom)

1. *When Unfairness doesn't Matter: The Role of Outcome and Attribution in Unfair Distributions*
Ma, Jingjing (UCLA Anderson)

This paper focuses on how to make people happy when they receive less than others in an unfair distribution. Specifically, when people are facing unfair money distribution and this unfair distribution is controlled by an allocator, they are more likely to have negative feelings. However, when people are facing real goods distribution or when the distribution is uncontrollable, negative feeling decreases dramatically. Implications to both the industry and the government are discussed.

2. *Affect, risk and future optimism after the tsunami disaster*
Västfjäll, Daniel (Decision Research, Eugene, OR); Peters, Ellen (Decision Research, Eugene, OR); Slovic, Paul (Decision Research, Eugene, OR)

Environmental events like natural disasters may influence people's affective reactions and decision behavior. We assessed how the 2004 Tsunami disaster impacted perception of future risk perception in undergraduates not directly affected by the disaster. In Study 1 we show that participants reminded about the tsunami had a sense that their life was more finite and that they had less opportunities than participants in the control condition (not reminded about the tsunami). In Study 2 we showed similar effects for future risk perception. In addition, we show that manipulations of ease-of-thought impacted the extent to which affect influenced risk perception.

3. *Back to valence: Process-tracing evidence that hedonic tone, not certainty appraisal drives the effect of emotion on decision making*
Bachkurov, Alexandre (Leeds University Business School (UK), Mazoon College (Oman)); Maule, John (Leeds University Business School (UK))

Three process-tracing studies are reported that test predictions derived from the valence-based and appraisal-tendency framework (ATF) approaches to explaining the effects of emotion on depth of processing (i.e. heuristic/systematic). Participants completed a content-rich multiattribute managerial decision task using Mouselab, with depth of processing operationalized as the number of information acquisitions. Emotional disposition and induction techniques were used to evaluate the effects of happiness, hope, anger, fear. Overall the findings revealed no differences in certainty/uncertainty appraisal between the four emotions but strongly supported the valence based predictions on emotion and depth of processing.

4. *The role of affective reactions on investment decision-making*
Rubaltelli, Enrico (University of Padova); Pasini, Giacomo (University of Venice); Rumati, Rino (University of Padova); Slovic, Paul (Decision Research)

This study investigated how investors' affective reactions influence their decision to sell investments with poor performances. Participants were presented with one of two funds: socially responsible or ordinary fund. They completed a mental images task for each industrial sector in which the fund was investing and were asked to state the price at which they were willing to sell it. Results showed lower prices for people with most positive affective reactions. We also found that the socially responsible fund induced more positive reactions than the ordinary fund. Consistently, affective reactions influenced selling prices for both funds but in different ways.

5. *When anger yields financial rewards*
Litvak, Paul (Carnegie Mellon University); Lerner, Jennifer (Harvard University)

This paper examines the effect of incidental sadness and anger on risk-taking behavior. Risk taking was measured by the Balloon Analogue Risk Task (Lejuez et al., 2002), using real monetary rewards. Results revealed that subjects in an incidentally angry state took more risks and performed better than individuals in a neutral or sad state. Specifically, subjects in the anger condition were better at maximizing their expected-value compared to subjects in the neutral or sad condition. We conclude that, under circumstances where risk-seeking behavior yields rewards, even incidental anger can improve decision outcomes.

6. *Feeling Good Enough to Do Wrong: The Role of Moral Identity in Moral Behavior*

Sachdeva, Sonya (Northwestern University); Medin, Douglas L. (Northwestern University)

In this study, we demonstrate that the salience of one's moral identity is negatively related to moral behavior. Participants were asked to write a self-relevant story containing a set of either virtue, vice, or neutral traits. Participants were then asked how much they wished to donate to a charity of their choice. Participants donated the least in the virtue condition and the most in the vice condition. We suggest that affirming a moral identity buffers against negative affect (e.g. guilt) experienced by refusing to donate. However, when moral identity is threatened, meritorious behavior is a means to alleviate negative affect.

7. On the Generality of Emotion effect on Scope Sensitivity

Gong, Min (University of Pennsylvania); Baron, Jonathan (University of Pennsylvania)

Prior research suggests that affective processing evoked by pictures of pandas leads to scope insensitivity (Hsee & Rottenstreich, 2004). We test this effect under both joint evaluation and separate evaluation mode, over various goods, including environmental problems, endangered species, and health risks. Our results suggest that it is not a general phenomenon for picture evoked affect to reduce scope sensitivity. We also conduct a series of experiments to test whether more general affective processing (not confined to picture evoked affect) interferes with scope sensitivity in a loss domain.

8. Friend or Foe: The effect of implicit trustworthiness judgments in social decision-making.

Van 't Wout, Mascha (NDSL, University of Arizona); Sanfey, Alan G. (NDSL, University of Arizona)

Recent studies show that explicit information about a potential partner has a considerable influence on strategic decision-making. However, much less is known about how implicit social cues affect strategic decision-making. Participants played the Trust Game with 79 hypothetical partners who were previously rated on subjective trustworthiness. The results showed that trustworthiness, a rapidly-processed cue that assesses the likelihood a partner will reciprocate a generous gesture, is related to the degree to which participants are likely to cooperate with that partner. Conclusions as well as preliminary results of brain activation associated with trustworthiness and its influence on decision-making will be presented.

9. The influence of mood on decision making in the aging adult

Carpenter, Stephanie M. (University of Oregon); Peters, Ellen (Decision Research and University of Oregon); Vastfjall, Daniel (Goteborg University and Decision Research); Isen, Alice M. (Cornell University)

Subjects (n=46; aged 63-85) participated in an experiment assessing the impact of mood on decision making. Positive-mood subjects received a gift of candy; the rest received no gift. All subjects completed a computer-based card task. In the background, positive-mood subjects saw smiling suns; neutral-mood subjects saw control circles. All completed several tasks measuring cognitive performance. Results indicated that positive mood was related to choosing better, and this effect was mediated by an increase in working memory (WM) in the positive-mood condition. A follow-up study is being conducted to determine whether positive mood increased WM.

10. Charitable Giving: How Ego-Threats Impact Donations of Time and Money

Duclos, Rod (University of North Carolina); Jim Bettman (Duke University); Paul Bloom (Duke University); Gal Zauberman (University of Pennsylvania)

Consumers can exhibit charitableness in a variety of ways (e.g., by reading to the blind, serving food to the hungry, donating money to the needy). Broadly speaking, however, donation behavior can take one of two forms: One can volunteer time or money. Across three experiments, we examine how ego-threats, i.e., menaces to one's sense of self, can lead individuals to prefer donating time over money to their favorite charity. We hypothesize that this state of preference for time contributions when the self is under threat serves a purpose, namely, to repair the self or buffer it against future aggressions.

11. Affective Decision Making in Consumer Choice

Hafenbrädl, Sebastian (HEC Lausanne); Hoffrage, Ulrich (HEC Lausanne); White, Chris M. (HEC Lausanne)

When making purchase decisions, how many options do people wish to have available? Does this number depend on people's affect towards the product? To address this, we combined two research areas, the "tyranny of too much choice" and "affective decision making". We performed a feeling versus calculation priming manipulation to change people's sensitivity towards the quantity of options to be chosen. In addition to testing whether this affected the perceived value of the options, we tested whether it similarly affected the size of the set that people preferred to choose from (which has rarely been investigated as a dependent variable).

12. *Involuntary Switching Behavior in Restricted Decision Environments*
Ozcan, Timucin (University of Rhode Island)

This research examines how consumers make choices when their most preferred alternative is removed from their consideration set, which creates a new decision environment with restrictions. As one of the consequences of this restricted decision environment, consumers may involuntarily switch from their preference and choose another alternative. Based on affective-cognitive model of consumer decision making, differential loss aversion, and justification effects on consumer choice, this study proposes that after facing removal of the most preferred option to choose and making a substitution decision, consumers will choose a product that is superior on the hedonic dimension rather than utilitarian dimension.

13. *Knowing, feeling and thinking about it: A cognitive-affective model of preference construction*
Trujillo, Carlos A. (Universidad de los Andes, School of Management)

The literature on the role of emotions in decision making falls short in providing a theory of how cognition and emotion are combined in the process of preference construction. This paper addresses that gap by mathematically developing and experimentally testing a model of choice that captures the dynamic of cognition and affect during choice process. The constituents of the model are (1) the correlation between cognitive judgments and affective reactions and (2) the relative complexity of the environment. Modification of these alters the balance of cognitive vs. emotionally laden preferences. The model is able to predict decisions capturing these phenomena.

14. *Decisions About Objects: Influences of Cognition, Personality and Psychopathology*
Preston, Stephanie (University of Michigan)

People buy items that “speak to them” and keep nostalgic items with no other utility, revealing an emotional and subjective nature of decisions not captured by current research/theory. To understand real-world decisions, we developed an object-decision task that was correlated with scale measures and manipulated with time and space constraints. Acquirers took too much, overestimated usefulness (but not value), and had high depression, OCD, and decision impairment while Spartans took very little and underestimated usefulness. Intermediate groups took equivalent amounts, but different objects (e.g., Consumers, Reusers, Maximizers, Givers). This novel task can interrogate the complex nature of real-life decisions.

15. *Individual strategy preferences for intuition and deliberation and decisional fit*
Betsch, Cornelia (Erfurt, Germany); Kunz, Justus J. (Jena, Germany)

People differ in their preference for intuitive/affective and deliberate/cognitive decision strategies. The Preference for Intuition and Deliberation scale allows the assessment of such individual differences in strategy preferences. Several studies show that the fit between the preferred and applied decision strategies (so-called decisional fit) enhances the perceived value of the chosen or evaluated object. Further, participants experienced less regret after decisional fit. The research highlights that it is important to consider individual differences in intuitive and deliberate decision making because strategy preferences interact with applied strategies.

16. *Emotional and cognitive processes of decision-making in the Iowa Gambling Task*
Beck, Brianna (Scripps College); Wood, Stacey (Scripps College)

It is uncertain whether decision-making on the Iowa Gambling Task (IGT) relies more on emotional cues or on higher-level cognitive functions. Participants in this study completed the IGT while simultaneously performing a task that loads executive functions or judging the valence of emotional stimuli. The secondary executive function task did not impair quality of decision-making, but the secondary affective task produced a marginally significant trend, $F(3, 36) = 2.329$, $p = .091$. Participants in the affective condition made fewer advantageous choices in later trials than participants who performed only the IGT made. This supports the somatic marker hypothesis of decision-making.

17. *Persuasive and Comforting Consistency: Accountability and Affective Functions of Coherence Shifts in Decision Making*
Chen, Lydia L. (University of Michigan); Yates, J. Frank (University of Michigan)

People often “coherence shift,” or alter their evaluations of option features to support the wisdom of their choices. In an accountability manipulation, half of the participants (but not the others) were forewarned that they would have to, via video, justify their choices between two job offers to other participants responsible for rating their persuasiveness. Forewarning amplified coherence shifting. Coherence shifting was also associated with higher anticipated happiness and satisfaction, but only for individuals assessed as decisive. These findings suggest that coherence shifts may serve partly to make decision

makers feel more persuasive and more comfortable with respect to their choices.

18. *The Role of Implied Socio-Economic Advantage in Reactions of Outrage and Blame*

Krosch, Amy R. (Columbia University); Moore, Colleen F. (University of Wisconsin-Madison)

Reactions to ethical challenges depend not only on the decision made, but also on characteristics of the decision maker and people judging the decision. We manipulated socio-economic advantage of the decision maker along with decision difficulty, outcome, and type of decision (Tetlock, 2000) and found that status of the decision maker and gender of the participant interacted to affect judged outrage. In addition, attributions of blame shifted as a function of participant and decision maker characteristics. Contrary to many philosophical and psychological moral theories, the results imply that moral reactions are highly sensitive to social context.

19. *A Falling in Love Heuristic? An Exploration of Mate Choice Determinates*

Burke, Monica (University of West Florida); Schneider, Sandra (University of South Florida)

This paper examines how falling in love may serve as an adaptive heuristic for facilitating long-term mate choice decisions. Using listing and Q-sort tasks, Studies 1 and 2 examined important partner characteristics for falling in love and confirmed that these characteristics corresponded closely to characteristics known to be adaptive in marriage partners. Study 3 explored the functional role of falling in love as a heuristic using a policy capturing approach. Results indicate that falling in love may have substantial impact as an adaptive mate-choice heuristic for long term commitment, but only when discriminating among candidates who are already considered desirable.

20. *Retrospective evaluation of stories: Is it what you remember that counts?*

Poirier, Marie (City University); Hasic, Majda (City University); Aldrovandi, Sylvio (City University)

Eighteen participants listened to short stories via headphones while watching corresponding slide shows. Stories either contained or not a striking or peak event (e.g. "Charles was told he was fired") and the position of the striking event was manipulated (start, middle, or end of the story). Immediately after each story, participants were asked to rate the story for pleasantness. Then, they were asked to identify the two most memorable images from the slide show. Analyses examined the correspondence between inclusion of a peak, memory availability and retrospective evaluations. The results are coherent with a memory-based interpretation of retrospective evaluation.

21. *Beauty and folly: a study of risk and benefit perceptions in online dating profiles*

Krishnamurti, Tamar (Carnegie Mellon University); Downs, Julie (Carnegie Mellon University)

We examined the effects of risks and benefits in responses to potential dating partners, using a between-subjects, 2 (high vs. low risk) x 2 (high vs. low benefit) design. Male participants viewed videos, similar to those on dating websites, of a more vs. less attractive woman with a higher vs. lower risk personal profile, and indicated their willingness to engage in high-risk sexual activity. Participants were sensitive to risk when benefit was low, but had riskier intentions when benefit was high, regardless of risk. These results suggest that the intrinsic utility in a high-benefit situation may override risk judgments.

22. *Hide or seek: The motivational processes behind decisions to avoid or pursue counter-attitudinal information*

Walker-Smith, Katherine Z. (Carnegie Mellon University); Loewenstein, George (Carnegie Mellon University)

Although the internet allows people to encounter a wider range of information than was previously possible, it also enables them to seek out specialized and limited content, narrowing and reinforcing existing attitudes and beliefs. Which effect dominates depends in part on individual psychology – on individuals' interest in, and willingness to expose themselves to, perspectives different from their own. To address this issue, we examine the immediate emotional and motivational processes that lead people to avoid information that challenges their opinions, and on the situational factors and personal characteristics that influence the seeking out and avoidance of such information.

23. *Affective forecasting can change decision behavior*

Angott, Andrea M. (University of Michigan); Yates, J. Frank (University of Michigan)

Systematic errors in affective forecasting (the prediction of one's own future emotions) have been demonstrated in many domains. These errors are consequential if people make decisions based upon these faulty forecasts, but the actual relationship between affective forecasts and decision behavior has not been explored. The present study showed that for some decisions, asking participants to make an affective forecast changed their decision behavior, indicating affective forecasting (as commonly studied) may not always be a part of naturally occurring decision making. Furthermore,

participants who made affective forecasts reported more intense affective reactions to experiences than control participants.

24. Acting without thinking: Rage, rashness, and moral evaluation
Inbar, Yoel (Cornell University); Critcher, Clayton (Cornell University)

The current research examines the effect of perceived impulsivity on blame. We predicted that an impulsive action could either be seen as a product of the actor's disposition (in which case impulsivity reflects the actor's character and increases blame) or as a product of the situation (in which case impulsivity reflects situational pressures, and decreases blame). In particular, we predicted that emotional arousal should draw attention to the situation, so that perceived emotional arousal coupled with impulsivity would decrease blame, while impulsivity in the absence of emotional arousal would increase blame. These predictions were supported in four studies.

25. Happiness Pump: The Impact of Similarity and Accessibility of Past Experiences on Current Happiness
Zhang, Yan (University of Chicago); Hsee, Chris (University of Chicago)

Improving sequences of incentives make people happier than flat sequences of incentives, but they cannot increase indefinitely. In this research, we consider repeated improving sequences where a series of individually improving sub-sequences occur, with a return to the initial lower level at the start of each sub-sequence. We demonstrate that participants experience greater happiness with repeated improving sequences when the similarity between sub-sequences or the accessibility of previous sub-sequences is reduced than when the sequences are flat, or where similarity or accessibility is unchanged. Implications for formulating consumer incentives and pricing strategies that better motivate consumer happiness and choices are discussed.

26. Two Routes to the Perception of Need: The role of affective and deliberative information processing in pro-social behavior.
Dickert, Stephan (University of Oregon; Decision Research); Sagara, Namika (University of Oregon; Decision Research); Peters, Ellen (Decision Research; University of Oregon); Slovic, Paul (Decision Research; University of Oregon)

We investigate the influence of affective vs. deliberative information processing on donations. In four experiments, we distinguish between feelings focused on the self (e.g., anticipated regret) and feelings focused on the victims (e.g., sympathy) and elucidate the extent to which these feelings determine the value that decision makers place on helping those in need. We manipulated affective vs. deliberative processing by a priming methodology, serial presentation of victims, and cognitive load paradigms. Results indicate that people access their feelings about victims only in specific circumstances, and that affective reactions are more positive if the victim can be clearly identified.

27. Psychophysical Judgments Before, During, After; How the Time of Judgment Interacts with Magnitude and Context Sensitivity.
Hoffman, Moshe (University of Chicago); Hsee, Chris (University of Chicago); Myrseth, Kristian (University of Chicago)

Many psychophysical judgments are made before or after the stimuli are experienced, such as anticipating the coldness of an upcoming glass of ice-water, or remembering the loudness of a roommate's alarm clock. We hypothesize that psychophysical judgments in anticipation and retrospect differ systematically from judgments made during the stimuli experience because in anticipation and retrospect one must rely on a mental representation of the stimuli, as opposed to information from one's senses. Accordingly, we find that judgments in anticipation and in retrospect are less magnitude and more context sensitive relative to judgments made during the stimuli experience.

28. Strategic perspective-taking: When wearing others' shoes makes you smarter
Li, Ye (University of Chicago, GSB); Hastie, Reid (University of Chicago, GSB)

While perspective-taking is useful for all social interaction, nowhere is it more important than in strategic interactions (a.k.a. games). Taking other players' perspectives is frequently the only way to gain insight into their strategies, and thus is a necessary step for forming one's own strategy. The present research explores the effects of perspective-taking on depth of reasoning in games. While we find significant levels of spontaneous perspective-taking, explicitly asking players to take the other players' perspectives increases their levels of thinking beyond the control condition. The type of game and the degree of "access" to other players are important moderators.

29. Bargaining with Time
Nakazawa, Fusae (Universidad Nacional Autónoma de México); Bouzas, Arturo (Universidad Nacional Autónoma de México)

We use a variation of the ultimatum game where the distribution of the money was determined by the experimenter; five distributions were studied. Proposers received their money immediately and receivers did it with a delay of 1 day, 15 days, 1 year or 4 years. Proposers could compensate for the asymmetric delays and magnitudes by advancing the receiver's payment, doing that they were also delaying their own payment for the same duration. Different partners were used for each of twenty games played. The experiment included a role of dictator and judge. All subjects did bargain with time.

30. *Film Rentals and Procrastination: A Study of Intertemporal Reversals in Preferences and Intrapersonal Conflict*
Milkman, Katherine L. (Harvard University); Rogers, Todd (Harvard University); Bazerman, Max H. (Harvard University)

We report on a field study demonstrating systematic differences between the preferences people anticipate they will have in the future and their subsequent revealed preferences. We examine the film rental and return patterns of a sample of online DVD rental customers over a period of four months. We predict and find that people are more likely to rent DVDs in one order and return them in the reverse order when should DVDs (e.g., documentaries) are rented before want DVDs (e.g., action films). Similarly, we also predict and find that should DVDs are held longer than want DVDs.

31. *Norms and Contributions: A field experiment in public library fundraising*
Krupka, Erin (IZA); Croson, Rachel (Univ. of Texas at Dallas)

This paper reports the results of an economics field experiment in charitable giving which tests the "focusing" influence of social norms. Derived from work in psychology, the focusing influence suggests that when attention is drawn to norms they impact behavior. We explore this prediction in a public library mail fundraising campaign, using two different treatments, a social expectations and a minimal visual cue. We predict that seeing a minimal visual (face-like) cue or thinking about what others in the community expect one to do focuses subjects on social norms and increases donation rates and sizes relative to the baseline

32. *Distortion of Payoffs and Probabilities in Mixed Monetary Gambles*
DeKay, Michael L. (The Ohio State University); Stone, Eric R. (Wake Forest University)

Research on predecision information distortion has largely ignored possible distortions of payoff and probability information in risky decisions. In this study, participants evaluated payoffs and probabilities for 6 pairs of mixed monetary gambles and chose 1 gamble from each pair. Information order was used to manipulate participants' initial preferences. As predicted, evaluations of unambiguous payoffs and probabilities were distorted in the direction of the currently preferred gamble, and these distortions partially mediated the effect of information order on participants' ultimate decisions. Because distortions of decision inputs are inherently nonconsequentialist, they pose a serious challenge to current descriptive theories of choice.

33. *Modeling the Effects of Reference Point Dependence and Loss Aversion on Supplier Selection*
Feng, Tianjun (University of California, Irvine); Keller, L. Robin (University of California, Irvine)

The effects of reference dependence and loss aversion have been widely studied in consumer behavior and brand choices. In contrast to the empirical studies in consumer purchasing behavior using scanner data, we develop a mathematical framework incorporating the effects of reference dependence and loss aversion to model buyers' choices among suppliers by evaluating the suppliers relative to multi-attribute reference points over multiple time periods. Specifically, the behavior of buyers on supplier selection has been studied based on analytical results from our reference dependent model. We further provide some managerial insight on how to compete for buyers in a market.

34. *The psychological representation of corporate personality*
Otto, Philipp (UCL); Chater, Nick (UCL); Stott, Henry (Decision Technology)

As with any other object, people represent companies along a number of dimensions. But what are the key psychological dimensions that best describe companies, organizations, or brands? First, repeated evaluations of a small number of companies are used to distil the most useful dimensions for company comparisons. In a second step, a broader range of companies is positioned on these derived dimensions. The major dimensions that psychologically differentiate companies can be labeled honesty, prestige, innovation, and power. Scales of this type may have substantial commercial value in helping companies understand and track their public perception.

35. *The impact of participation and beneficiaries on the decision to cooperate*
Wahl, Ingrid (University of Vienna); Muehlbacher, Stephan (University of Vienna); Kirchler, Erich (University of Vienna)

Profit maximizing theories state that people act egoistically, regardless of whether and how they participate in a decision making process and regardless of who is benefiting of cooperation in social dilemma situations. Experimental results show that different types of participation (i.e., majority rule, elected representative, no participation) regarding a decision on a possible financial outcome significantly influence fairness perceptions, whereas they do not influence the degree of cooperation. Additionally, participants show more cooperation when they profit themselves from cooperation (individual profit), than when charities profit of cooperation (societal profit). Practical implications on tax policy will be discussed.

36. Comparing the decision field theory with the proportional difference model for decisions under risk

Scheibehenne, Benjamin (Max Planck Institute for Human Development, Berlin); Rieskamp, Jörg (Max Planck Institute for Human Development, Berlin); González-Vallejo, Claudia (Ohio State University, Athens)

In a series of two experiments we compared the decision field theory (Busemeyer & Townsend, 1993) and the proportional difference model (Gonzalez-Vallejo, 2002) rigorously against each other. In the first study we estimated the free parameters of both models; in the second study we compared the models for those situations in which they made opposing predictions. Our results show that both models did equally well in describing the probabilistic character of choice. However, when focusing on choice situations in which the two theories make opposing predictions, decision field theory clearly provided a better account of the choice behavior.

37. The Long and Short of Temptations and Decision-Making

Magen, Eran (Stanford University); Newman, Frank M. (Stanford University); Torrance, Tina M. (Stanford University); Gross, James J. (Stanford University)

We developed a quantitative, easily interpretable model of naturalistic decision-making in daily life, using an online self-report paradigm. Participants responded to 58 scenarios and made choices between two behavioral alternatives. Participants judged each alternative on only 2 dimensions, and on this basis alone the model provided a good fit with the likelihood of specific behaviors (mean $R^2 = .51$), including choices in the face of temptations. The model proved to be superior to a more traditional measure of sensitivity to reward and punishments. This work demonstrates the feasibility of quantifying preferences and predicting behavior in real-life situations.

38. Getting our act together: The cybernetic process model of self-control

Magen, Eran (Stanford University); Gross, James J. (Stanford University)

Self-control research is exploding with theories, models, and approaches, each largely unrelated to others. Researchers are struggling to conceptually link their work with existing research. We propose a general model of self-control, which coherently organizes findings and theories from the field. The model integrates two influential models of self-regulation: Cybernetic Control Theory (Carver and Scheier, 1981) and the process model of emotion-regulation (Gross, 1998). This model allows researchers to integrate findings from the field of self-control, and to design novel interventions in areas that are still largely uncharted by current research, thus improving our understanding of and capacity for self-control.

39. The Trust Allocator Game: Observing the Effects of Credible Signaling on Trust-Based Cooperation in Dyads

Wood, Alison M. (Princeton University); Murphy, Ryan O. (Columbia University)

Because it reflects motives other than strict self-interest, trust is not predicted by rational choice theory. However, trust is common in human interactions and is also observed in experimental settings. Previous research suggests that trust-based cooperation tends to deteriorate over time, moving toward the non-cooperative Nash equilibrium. We investigated the effects of credible signaling on trust-based cooperation in a novel experimental game, the Trust Allocator Game. Our studies provide evidence that credible signaling can stave off the typical unraveling of trust-based cooperation when distrust is based on mutual fear.

40. Field and Lab Equilibration in the Poisson LUPI Game

Ostling, Robert (Department of Economics, Stockholm School of Economics); Wang, Joseph Tao-yi (Division for the Humanities and Social Sciences, Caltech); Camerer, Colin F. (Division for the Humanities and Social Sciences, Caltech); Chou, Eileen Y. (Manage)

In the Lowest Unique Positive Integer (LUPI) game, the player who chooses the lowest positive integer not chosen by anyone else wins a cash prize. We derive precise predictions for fully rational players and boundedly rational players using a cognitive hierarchy model (in which some players ignore cognition of others). We then compare the predictions to field data (2.6 million choices from a Swedish lottery), and new data from lab experiments. The cognitive hierarchy model can explain both the fact that both field and lab results are surprisingly close to Nash equilibrium, and that too many low numbers are

chosen.

41. *Patience Auctions: Using Novel Auction Mechanisms to Elicit Discount Rates Under Time or Money Framing*
Olivola, Christopher Y. (Princeton University); Wang, Stephanie W. (Princeton University)

We introduce, test, and compare two novel auction-based experimental methods for eliciting discount rates. In these “patience auctions”, participants bid the smallest sum they would prefer receiving in the future -or- the longest time they would prefer waiting for a reward, rather than receive a smaller, immediate payoff. The winning bidder receives the delayed reward; all other bidders receive the smaller, immediate payoff. These auctions offer a few important advantages over other methods of elicitation. In addition, we compare how discount rates vary depending on whether the auction focuses participants’ attention on the temporal or monetary dimension of delayed rewards.

42. *Fractionating masculinity: Effects of dominance and systemising on Ultimatum Game behaviour*
Reimers, Stian (University College London); Harvey, Nigel (University College London); Chater, Nick (University College London)

We investigated the effects of two male-typical traits on ultimatum game behaviour: self-report dominance and systemising-empathising quotient (SEQ). We report data from a web-based study with ~80,000 adult British participants, responding hypothetically to a series of offers. As predicted, men scored higher on both dominance and SEQ, and both traits were associated with larger demands in the role of proposer. However, within gender, dominance was associated with increased rejection of low offers in the role of responder, whereas SEQ was associated with decreased rejection of low offers, demonstrating divergent behavioural effects of two male-typical traits.

43. *The Goal-Gradient Explanation of Escalation of Commitment*
Ting, Hsueh (University of Maryland, College Park); Wallsten, Thomas (University of Maryland, College Park)

That people violate the sunk cost principle is well documented. Many posit that the purported bias is due to experimental confounds, in that people persevere because they believe that will allow them to complete a project and make a profit. We tested a goal-gradient explanation of the phenomenon by manipulating characteristics of the trials and found that participants were more willing to incur costs when closer to the goal and that low, instead of high, sunk costs engendered a greater bias toward escalation.

44. *Excess entry: the roles of judgmental fallibility and overconfidence.*
Hogarth, Robin (ICREA & Universitat Pompeu Fabra, Barcelona, Spain); Karelaia, Natalia (HEC Université de Lausanne, Lausanne, Switzerland)

The fact that many entrepreneurial ventures fail shortly after their creation is referred to as the phenomenon of excess entry. Psychological explanations of excess entry center on bias in judgment, namely that entrepreneurs are overconfident in their abilities. However, experimental evidence is open to different interpretations. We argue, by exploiting a simple model, that excess entry can be explained by judgmental fallibility in that entrepreneurs’ estimates of their true ability are imperfect. Overconfidence may well have nothing to do with excess entry. The phenomenon is further highlighted by the fact that individuals who do not enter markets are not observed.

45. *Individual rationality and social rationality: Logical thinking and the ultimatum game*
Nakamura, Kuninori (JSPS/Tokyo Institute of Technology); Yamagishi, Kimihiko (Tokyo Institute of Technology)

Previous studies reveal that people weigh fairness principle even when it prevents them from the subjective expected utility maximization. Then, one question arises: How does rational person who can solve logical tasks behave when his/her maximization of the expected utility is not compatible with social rationality? We examined this question by using ultimatum game (Guth et al, 1982) and Wason’s selection task (Wason, 1966). In this study, participants answered various kinds of the selection tasks and then performed the ultimatum game. The results indicated that, regardless of the performance of the selection task, participants opted for fair allocation.

46. *Effects of Consistent and Accurate Predictions of Stock Prices on Herding in a Simulated Financial Market*
Andersson, Maria A. (Göteborg University, Department of Psychology); Hedesström, Martin T. (Göteborg University, Department of Psychology); Gärling, Tommy (Göteborg University, Department of Psychology)

Herding in financial markets refers to that investors influence each other. In general a majority is influential but a consistent minority may also exert an influence. An important additional factor that we investigate is accuracy in predictions of stock

prices; can a minority of investors who make accurate predictions exert more influence than a majority of investors who make inaccurate predictions? The results indicated that a majority influenced participants predictions, more when the majority made accurate than inaccurate predictions. A minority always had less influence and no effect of accuracy was observed. Other factors may augment minority influences in stock-markets.

47. A Race to the Finish: Coming Close to Fund-Raising Goals Increases the Rate of Donation

Cryder, Cynthia E. (Carnegie Mellon University); Loewenstein, George (Carnegie Mellon University); Seltman, Howard (Carnegie Mellon University)

A desire for self-satisfaction powerfully motivates people to behave charitably (Benabou & Tirole, 2006). Because it seems more satisfying to donate to a charitable cause when the cause is close to realization, we predicted that people would donate more to a fundraising campaign as it approached its goal. Using web robot technology in an internet field study of on-line donations, we observed that donation rates increase as recipients approach their fundraising goals. Understanding such phenomena is of great interest to theorists who wish to understand the foundations of generosity and to charitable organizations who wish to increase donations.

48. Signaling and Cooperation in Social Dilemmas

Abele, Susanne (Miami University); Stasser, Garold (Miami University)

Signals are abbreviated forms of communication between individuals or groups. We propose that the effects of signals depend on the type of interdependency. If the parties have mutual interests, signals foster cooperation. If the parties' interests are in conflict (as in a classic public goods game), signaling deteriorates the outcome of the interdependency. We had participants play either a continuous public good or a Minimal Contributing Set game. Also manipulated was whether participants could send signals before each of 12 rounds. In the public good game, signaling decreased cooperation whereas, in the Minimal Contributing Set game, it did not.

49. The Relationship between Risky and Delayed Decisions: A Model Comparison Approach

Bishara, Anthony J. (Indiana University); Busemeyer, Jerome R. (Indiana University); Ahn, Woo Y. (Indiana University); Kim, Woojae (Indiana University); Stout, Julie C. (Indiana University)

Delay and probability discounting can sometimes be fit by a single model (hyperboloid), which raises questions about the relationship between delayed and risky decisions. Comparing 14 different models of discounting, we found a significant model X discounting type interaction. Hyperboloid and Lattimore et al. models best described delay discounting. Probability discounting was significantly more likely to be best fit by several probability weighting functions, including cumulative prospect theory and Brandstatter et al.'s elation/disappointment model. These results suggest that delayed decision-making and risky decision-making are distinct, despite the possibility of obtaining adequate fits with a single model.

50. The Houston Retirement Project-A Progress Report

Rude, Dale (U of Houston); Epstein, David (U of Houston)

The goal is to increase the wealth of 1200 faculty by \$1 billion during their lifetimes without increasing university retirement contributions. On average, annual retirement income would increase by \$40,000 per faculty member. The estimated total cost to the university is under \$250,000. The existing retirement program is inefficient. Naïve faculty receive little or no training concerning retirement planning. Many of the 15 retirement services providers are opportunistic, charging high loads and/or fees. Initial steps include providing education to faculty (including recommendation of age-appropriate, index-fund portfolios based upon Modern Portfolio Theory) and reducing the number of providers.

51. Context Effects in the Moral Domain

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

Context effects, such as attraction and compromise effects for example, are quite familiar in the field of decision making. However, little is known about context effects when non-secular items are at stake. In Study 1 we found consistent attraction effect, but no compromise effect when the alternatives were ordered on morally relevant dimensions. In Study 2 we replicated and extended these results and ruled out two alternative explanations: that the observed pattern is due to framing; and that it is due to relative difference in the prevalence of the two types of effects.

52. Cross-Category Consideration Depends on Psychological Distance

Spiller, Stephen A. (Duke University); Lynch Jr., John G. (Duke University)

Consumers focus on low-level attributes when assessing psychologically close options and high-level attributes when assessing psychologically distant options (Trope & Liberman, 2000). We show that by increasing the level of abstractness at which alternatives are categorized, psychological distance alters consideration set (CS) composition. Participants were given alternatives differing on low- and high-level attributes and instructions to simplify choice through CS formation. CSs formed for the distant future included fewer high-level cross-category pairs and more low-level cross-category pairs than did those formed for the near future. Implications for the composition of CSs generated through recall and perceptions of variety are discussed.

53. When and Where Defaults Are Chosen

Crow, Janis (Kansas State University)

Pre-selected default values influence decisions. Little is known of when and where individuals retain defaults. Two experiments explore the purpose of default retention. A 3 (recommendations) x 3 (products) repeated mixed design tests 1) fixed neutrally preferred defaults and 2) randomly presented defaults. Across experiments, the recommendations influence decision effort but not purchase intent. Participants retain one fifth of the neutral defaults and one third of the random defaults. Covariates of product experience and gender help explain results. Contrary to prior examinations, this investigation reveals that in dynamic decisions with multiple attributes, defaults are less influential.

54. Think, Blink or Sleep on it? The impact of mode of thought on decision making.

Newell, Ben (University of New South Wales); Cheung, Jeremy (University of New South Wales); Wong, Kwan Yao (University of New South Wales)

Recent research has denigrated the use of analytic thought for complex decision making. We are exhorted to make snap judgments ('blink') or to deliberate-without-attention ('sleep on it'). Four experiments scrutinized these controversial recommendations. Participants were asked to choose the 'best' from four alternatives (e.g., cars) described by multiple attributes. There was scant evidence for differences in choices made immediately, after conscious deliberation, or after deliberation-without-attention; but some evidence that the recency of presented information influenced choice. The results question the 'power of thinking without thinking', or at the very least the methods claimed to provide evidence for such power.

55. Too Much Choice: Older Adults' Decision Making Related to Medicare Part D

Tanius, Betty E. (Claremont Graduate University); Wood, Stacey (Scripps College); Hanoch, Yaniv (Plymouth, UK); Rice, Thomas (University of California, Los Angeles); Ly, Martina (Scripps College); Horn, Laurel

This study investigated the impact of choice size available under Medicare part D on decision quality in young and older adults. Sixty-four older adults and 84 younger adults selected an insurance drug plan from either 6 or 24 different options. A main effect for age group and condition were found such that younger adults did better in all conditions and all participants were more likely to choose the best plan when in the smaller choice set condition ($ps < .05$). Results further indicated that individual differences in numeracy play a significant role in optimal decision making.

56. Choice as a Means versus an End

Choi, Jinhee (University of Chicago); Fishbach, Ayelet (University of Chicago)

We propose that same choice activity is experienced differently, depending on whether the focus is on getting the chosen item (choice as a means) or not (choice as an end). When choosing is construed as a means to another end, it is subjectively unpleasant and depleting. Conversely, when choosing is construed as an end in itself, it is subjectively pleasant and replenishing. Three studies demonstrate these effects of choice across different domains (e.g. choosing flowers, books, and vacation packages). We further find evidence for greater interest in the selected items when choice is construed as an end (vs. a means).

57. I'll Have the Ice Cream Soon and the Vegetables Later: Decreasing Impatience over Time in Online Grocery Orders

Rogers, Todd (Harvard Business School); Milkman, Katherine L. (Harvard Business School); Bazerman, Max H. (Harvard Business School)

How do decisions for the near future differ from decisions for the more distant future? Most economic models predict that they do not systematically differ. With online grocery data, we show that as the delay between order completion and delivery increases, customers spend less, order a higher percentage of "should" items (e.g., vegetables), and order a lower percentage of "want" items (e.g., ice cream). However, orders placed for delivery tomorrow versus two days in the future do not show this want/should pattern. A second study provides a clean explanation for this orders-for-tomorrow exception.

58. *Decoy Effects in Romantic Partner Selection*

Pettibone, Jonathan (Southern Illinois University Edwardsville)

To study the effect of context on romantic decisions, participants were presented with three item choice sets that contained two equally attractive potential partners and either an asymmetrically dominated, a compromise, or a phantom decoy. Participants chose the partner from each set they would date. Decoy type and context were manipulated within subjects. Results showed typical decoy effects for the asymmetrically dominated and phantom decoys, but not the compromise decoy. Judgment data indicated that the compromise decoy failed to increase the justifiability of the targeted alternative, providing support for an emergent value model of decoy effects.

59. *How Chinese Consumers Choose between Hedonic and Utilitarian Products*

Ma, Xinxin (Central University for Nationalities); Ma, Jingjing (UCLA Anderson); Zhang, Li (Peking University)

This study examines how Chinese consumers choose between hedonic and utilitarian products. Experiments are designed to test preference asymmetry between hedonic and utilitarian products in acquisition and forfeiture contexts. Opposite to findings in the U.S., our results show that a utilitarian item is relatively preferred over a hedonic item in forfeiture context than in acquisition context. The authors propose that the reason why Chinese, not American, consumers, prefer utilitarian products more in forfeiture context is because Chinese consumers are much more likely to justify their choices in forfeiture context. It is high justification level which leads to high utilitarian preference.

60. *Moderators of Choice Preference: An Archival Test of Implicit Egotism*

Kleyman, Kerry S. (University of Nevada, Reno); Kemmelmeier, Markus (University of Nevada, Reno)

Implicit egotism indicates that people make positive connections with stimuli associated with their self, and these connections influence their judgments and decisions. The current study investigates the influence of culture as a moderator for implicit egotism, utilizing the name letter effect on major life decisions (i.e. place of residence). Implicit egotism was found to vary in different cultural constructs; such as individualist vs. collectivist cultures, as well as cultures of "Southernness," and other regional demographic variables. This study has important implications in the development of understanding how culturally distinct individuals and groups of individuals make decisions and form judgments.

61. *Money and Fame: Vividness Effects in the National Basketball Association*

Wang, Long (Northwestern University)

Kerr (1975) argued that vividness was one of the major reasons for distorted rewards. This research directly tests Kerr's proposal by investigating whether, how and why highly visible behaviors are over-rewarded and less visible, but at least equally important behaviors are under-rewarded. The National Basketball Association (NBA) was chosen as the domain of this study. The findings from three studies demonstrated that because scoring performance was more vivid than non-scoring performance, scorers were rewarded with higher salaries and received more support in the NBA All-Star balloting than defenders, even though they might not necessarily make more contribution than their teammates.

62. *Unwilling to initiate or willing to avoid the decision process: A two-dimensional model predicting decision process avoidance*

McNeill, Ilona M. (Universiteit van Amsterdam); Nijstad, Bernard A. (Universiteit van Amsterdam); Handgraaf, Michel J. J. (Universiteit van Amsterdam); De Dreu, Carsten K. W. (Universiteit van Amsterdam)

We investigate a two-dimensional motivational model predicting when people will refuse to initiate a decision (decision process avoidance). In three studies, we distinguish between Willingness to Initiate the decision Process (WIP) and Willingness to Avoid the decision Process (WAP), and show that both independently influence decision process avoidance. Negative WIP and positive WAP lead to more avoidance, whereas positive WIP and negative WAP lead to more initiation of the decision process. Responsibility for the decision (a manipulation of WAP) moderates the influence of attractiveness of avoidance (a manipulation of WAP) and attractiveness of the decision process (a manipulation of WIP).

63. *The self as heuristic: The interaction of shared initials and decision importance in job applications and Major League Baseball*

Hetts, John J. (Washington University); Gilbert, Elizabeth (Washington University); Kahntroff, Jeff (Washington University)

Two studies investigated the effects of automatic egoism on decision-making. In Study 1, undergraduate considering job applicants disproportionately failed to eliminate candidates with a shared initial for unimportant decisions but not for

important decisions. In Study 2, Major League Baseball players who shared initials with the manager or GM were significantly overrepresented on spring training rosters. This effect was moderated, as expected, by player importance (i.e., starters, bench players, vs. didn't make team) with overrepresentation of shared initials diminishing as importance increased. With other work, these results suggest that aspects of the self heuristically influence decision-making outside our awareness.

64. *The benefits of unconscious thought in feature matching comparison*

Rim, Hye Bin (Yonsei University); Lee, Hana (Yonsei University); Park, So Ri (Yonsei University); Sohn, Young Woo (Yonsei University)

This research extended the unconscious thought theory in decision making to the context of comparison process. We examined the differences in the magnitude of feature-cancellation effect, a side effect of feature matching strategy in successive choices, for the two modes of thought: conscious vs. unconscious. Results showed unconscious thought was less affected by the feature-cancellation effect than conscious thought. Unconscious thinkers were less likely to cancel out the shared features of options and more likely to evaluate options globally than conscious thinkers. Our findings suggest the benefit of unconscious thought exists even when people engage in a feature matching process.

65. *Is it appropriate to kill unarmed civilians in war? The impact of obedience on undergraduates' responses to moral scenarios*

Schueller, Stephen M. (University of Pennsylvania); Jayawickreme, Nuwan (University of Pennsylvania); Eidelson, Ben (University of Pennsylvania)

265 undergraduates were presented with three different moral dilemmas set in a battlefield context. The dilemmas involved judging the appropriateness of harming unarmed civilians. In all three scenarios, participants reported that it was morally inappropriate to harm civilians. However, when the scenarios also included an order by a superior officer to kill civilians, participants reported that such actions were in fact appropriate. These findings suggest that obedience does not involve a knowing failure to act appropriately, but rather that it involves an alteration of one's judgments of appropriateness to match the beliefs of one's superiors.

66. *So many men, so little time: How people choose mates in the modern world*

Lenton, Alison (University of Edinburgh)

This program of research aims to improve our understanding of how the choice context impacts mate choice. Accordingly, one line of research shows that evaluation mode (joint vs. separate) and option quality (poor vs. good) influence mate choice preferences. The choice context also influences mate choice strategy: in one study, participants selected one individual from a dating website for future contact. Participants examined 4, 24, or 64 profiles. The larger the set size, the more likely participants were to use non-compensatory choice strategies. A separate study in the speed-dating context suggests that set size also impacts choice quality.

67. *The psychology of vaccination and the appeal of "100%"*

Li, Meng (Rutgers University); Chapman, Gretchen (Rutgers University); Thomas, Dave (Yale University); Galvani, Alison (Yale University)

People overweight certainty, even when it is just an illusion. In study 1, participants (N=470) preferred a vaccine that was 100% effective against viral infections that cause 70% of cancer cases over a vaccine that was 70% effective against infections that cause 100% of cancer cases. Study 2 (N=129) demonstrated a preference for "100%" even if it does not refer to probability: both vaccines from study 1 were preferred to other vaccines that were partially effective against infections that cause a subset of cancer. Mentioning another cancer not protected by the vaccine did not affect the preference for "100%".

68. *Taking Risks to Have Fun: A Reversal of Loss Aversion in Leisure-Oriented Choice*

Hur, Taekyun (Korea University); Cho, Ja Ee (Korea University); Namkoong, Jae Eun (Korea University); Roese, Neal, J. (University of Illinois)

Losses are generally experienced more strongly than gains of the same magnitude, yet nearly studies have shown this effect with regard to materialistic choices. Two experiments showed a reversal of loss aversion when choices focused on leisure activities and having fun. The typical loss aversion pattern was evident in materialistic choices (stock and venture investment, lottery, medical), participants preferred riskier choices in loss versus gain. But when participants made choices about leisure activities (movies, sports, travel, dating), they preferred riskier choices for gain than loss. These findings have implications for revision and application of prospect theory and loss aversion.

69. *Cognitive and Socio-Affective Processes in Dyad Choices among Two-Outcome Lotteries*
Mukherjee, Moumita (University of South Florida); Schneider, Sandra L. (University of South Florida)

We explored the process of risky decision making by tracking how dyads make choices between two-outcome lotteries. Dyads, seated at different computers without information about which other participant was their partner, simultaneously viewed a series of lottery pairs. They used an instant messenger (IM) program to communicate with their partner on each trial to negotiate the choice of which lottery to play. Dyads made more extreme decisions than individual decision makers and were consistently more risk averse. We report on content coding of their IM transcripts which elucidates the basis for their decisions and the socio-affective characteristics of their interactions.

70. *Gain-Loss Separability in Certainty Equivalents of Mixed Gambles*
Budescu, David V. (University of Illinois at Urbana-Champaign); Templin, Sara E. (Georgia Center for Assessment, University of Georgia)

Wu and Markle (2006) performed empirical tests of the double matching axiom, which is necessary for gain-loss separability in mixed gambles, using pairwise choices. The present study mirrors their analysis using preferences inferred from Certainty Equivalents provided by 40 Decision Makers who evaluated 108 mixed gambles varying in the precision of their outcomes (Precise and Vague Gains and Losses). Unlike Wu and Markle we found no violations of double matching for precise gambles. The four types of mixed gambles are compared in terms of their rates of violations of the double matching axiom and the sources of these violations.

71. *Neuroimaging of multiple forms of risk*
Weber, Bethany (Duke University); Huettel, Scott (Duke University)

The present experiment uses functional magnetic resonance imaging to investigate two kinds of risky choices. With probabilistic gambles risk took the form of varying probabilities of winning money. In outcome-variance gambles, risk took the form of variance in the payout of the gamble: all outcomes were non-zero and occurred with the same probability (50%) but the difference between the high and low outcome varied. fMRI analysis suggests that these two types of risk are processed in many of the same brain regions, however the probabilistic gambles made greater use of areas of posterior parietal cortex related to calculation.

72. *On the Folly of Rewarding A+, While Only Needing A: The Tradeoff between Jacks of All Trades and Masters of One in the NBA*
Wang, Long (Northwestern University); Brett, Jeanne M (Northwestern University); Murnighan, J. Keith (Northwestern University)

Three studies investigate how and why NBA teams underevaluate three-point specialists in their recruitment and compensation decisions. The findings demonstrate the folly of rewarding A+, while only needing A (reward more than the real need) in the NBA. Study 1 showed that the salaries of three-point specialists were only related to their two-point scoring, but not three-point scoring. Study 2 surveyed basketball fans, showing that they preferred the all-around shooter over the three-point specialist although their team was in the need of the latter rather than the former. Study 3 investigated the differences caused by separate evaluation and joint evaluation.

73. *Neural Correlates of Wins and Losses during the Georgia Gambling Task in Pathological and Non-Pathological Gamblers: An MEG Examination*
Goodie, Adam S. (University of Georgia); Clementz, Brett A. (University of Georgia); Camchong, Jazmin (University of Georgia); Krusemark, Elizabeth (University of Georgia); Young, Diana L. (University of Georgia); McDowell, Jennifer E. (University of G)

Studying neural correlates of decision making enhances understanding of the mechanisms of pathological gambling. We compared MEG responses of 15 non-pathological (NPG) and 15 pathological (PG) gamblers performing the Georgia Gambling Task. Participants answered trivia questions, estimated the probability of each answer, then accepted or rejected a bet on each. Distributed source analyses of MEG data revealed stronger responses in visual cortex for PG and ventromedial-prefrontal cortex for NPG on winning trials. On losing trials, we observed stronger responses in prefrontal and temporo-parietal junction regions for PG. Implications for attention and reward system functioning following feedback in PG are discussed.

74. *Offering chemotherapy and hospice jointly: One solution to hospice underuse among lung cancer patients*

Salz, Talya (University of North Carolina at Chapel Hill); Brewer, Noel T. (University of North Carolina at Chapel Hill)

Advanced lung cancer patients rarely get chemotherapy concurrently with hospice care. 199 adult smokers evaluating hypothetical scenarios rated effectiveness of treatment on four established attributes. Similar to actual lung cancer patients, few respondents preferred supportive or hospice care alone. Most preferred chemotherapy or hospice and chemotherapy together. Perceived effectiveness was strongly related to preferences for chemotherapy and hospice together. Interest in hospice may be low because hospice without chemotherapy is perceived as ineffective at controlling symptoms and avoiding side effects. Preferences for chemotherapy and hospice together best reflect the values people place on attributes of treatment.

75. The psychology of the fluency heuristic: Do differences in fluency make us smart?

Herzog, Stefan (University of Basel); Hertwig, Ralph (University of Basel)

The fluency with which people process objects has profound effects on judgment and choice. Although extensive research has investigated this link, questions remain: How valid are fluency-based inferences about the real world? Do people use fluency adaptively? In three studies, we explored the ecological rationality of fluency in real world domains and tested a fluency heuristic (Schooler & Hertwig, 2005) that predicts that of two recognized objects, the object recognized faster scores higher on a criterion. Results show that fluency can be a moderately valid cue and people adaptively use fluency (either measured or experimentally manipulated) for their inferences.

76. Abstract Mental Construals Promote Adoption of Counteractive Self-Control Strategies.

Roberts, Joseph C. (The Ohio State University); Fujita, Kentaro (The Ohio State University)

Research has shown that abstract (high-level) construals or mental representations promote self-control in decision-making. Two experiments extend this work to examine the effect of construals on counteractive self-control, proactive strategies that bias future decisions toward alternatives reflecting greater self-control. Results indicated that high-level construals promote the adoption of two well-documented counteractive self-control strategies: preference for bracketed vs. unbracketed decisions (Study 1) and self-imposed punishment for self-control failure (Study 2). These results indicate that mental construals can impact self-control through strategic decisions made in anticipation of self-control conflicts.

77. How Does Experience and Inference Impact Decisions?

Gilino, Timothy (Auburn University); Franco-Watkins, Ana (Auburn University); Pleskac, Tim (Michigan State University)

Decision making behavior is influenced not only by past experiences, but also by current knowledge and inference about the structure of the decision problem. An experiment was conducted to investigate the role of both experience and inference in a gambling scenario. Participants completed 50 gamble situation trials using either decisions from experience or decisions from description, and then were provided with a new set of trials that were based on either a one-shot gamble or n-gambles. Results were examined to determine the impact of experience and inference in decision making.

78. Feedback Engenders Underweighting of Small Probabilities in Decisions from Description

Jessup, Ryan K. (Indiana University)

Recently, Barron & Erev (2003) demonstrated that individuals making decisions from experience (DFE) underweight small probabilities, in contrast to the overweighting observed during decisions from description (DFD). Here we tested whether the reception of trial by trial feedback in a repeated DFD paradigm would engender behavior more correspondent with the DFE or DFD paradigms. The results of a between subjects repeated measures gambling task indicated that individuals receiving feedback underweighted small probabilities, relative to their no feedback counterparts, implicating feedback as a critical component during the decision making process, even in the presence of fully specified descriptive information.

79. Judgments and choices between alternatives with moral consequences

Tyszka, Tadeusz (Center for Economic Psychology and Decision Making, Warsaw); Zaleskiewicz, Tomasz (Warsaw School of Social Psychology)

We found that in some moral dilemmas people were almost completely insensitive to changes in severity and probability of the harm for others. However, in other moral dilemmas changes in severity and probability of the harm for others led to different level of condemnation of the deed. Experiment two showed that in decisions involving certain moral norms people do not make trade-offs between monetary gains or losses and moral consequences, while for some other moral norm such trade-offs can be observed.

80. *Decisions from experience: The effect of social comparison on risk-taking judgments*
Lee, Jae In (Yonsei University); Sohn, Young Woo (Yonsei University)

This research examined whether the existence of comparison targets and targets' performance influence risk-taking judgments. To address this question, we used a 2 (pre- or post-comparison) X 3 (no-, upward- or downward-comparison) X 2 (description- or experience-based decision) mixed factorial design. Results indicated that decision makers were affected by social comparison targets. The upward-comparison group made more risk-taking decisions even when they were above status quo and the downward-comparison group made more risk-averse decisions. Such effects were greater for experience-based decisions than for description-based decisions. Our findings have implications that social comparison causes the shift of reference points.

81. *The Effect of Juror Ethnicity on Judgments and Perceptions of Courtroom Testimony*
Tomlinson, Tracy D. (University of Maryland, College Park); Dougherty, Michael R.P (University of Maryland, College Park)

Police officers are often called as witnesses for court cases and in some jurisdictions police are required to take the stand as part of the normal proceedings. However, despite this prevalence little is known about how jurors perceive the truthfulness of police testimony. We assessed the effect the juror's race, SES, and their level of cultural mistrust on perceptions of police testimony and subsequent judgments of guilt or innocence and their perceptions of the testimony. Relative to African Americans, Caucasians rated the prosecution witnesses' testimony to be more believable and were more likely to convict based on the testimony.

82. *Streak biases and decision making: the importance of perceived mechanism*
Cox, Cecilia R. (University of Sydney); Burns, Bruce D. (University of Sydney)

We conducted two experiments using a roulette wheel task to determine if human agency or perceived non-randomness of a generating mechanism best explains the presence of streak effects on decision making (e.g., hot hand). Participants experienced a streak of wins or losses, which are outcomes determined (in part) by a human agent. Participants were likely to follow a streak of wins/losses only if they perceived the streak to be a product of skill. This suggests beliefs about the causality of the generating mechanism are the critical factor behind how people respond to streaks.

83. *Overestimating Consumers' Sensitivity to Price Variations*
Shen, Luxi (Fudan University); Hsee, Chris (University of Chicago)

Accurate predictions of consumers' (in)sensitivity to price variations are crucial for marketers, yet marketers do not always make accurate predictions. Marketers often consider alternative price scenarios and are in joint-evaluation (JE) and consumers typically see only one price and are in single-evaluation (SE). The present paper shows that this JE/SE difference may lead marketers to overestimate consumers' sensitivity to price variations, and identifies when this overestimation occurs and when it does not.

84. *The Effect of Price Volatility on Decision Making*
Pirouz, Dante (University of California, Irvine)

Price volatility can be found not only in commodity prices for oil, electricity and agricultural products but also in consumer goods such as gasoline, milk, and beef. Based on adaptation level theory (Helson 1964), this paper will study the effect of price volatility on individual decision making by looking at how consumption changes with increased price volatility. It is hypothesized that as price volatility increases, overall consumption also increases especially for price sensitive consumers. The paper examines gas prices and consumption rates using time series analysis on data from the Energy Information Administration over a ten year period from 1997-2007.

86. *Identifying Decision Strategies in a Consumer Choice Situation*
Reisen, Nils (University of Lausanne, Faculty of Business and Economics); Hoffrage, U. (University of Lausanne, Faculty of Business and Economics)

In a consumer choice study, three process tracing techniques (Mouselab, Active Information Search, and retrospective verbal protocol) were combined to reveal cognitive processes and identify strategies used. After repeatedly choosing one of four mobile phones, participants formalized their strategy so that it could be used to make choices for them. The choices predicted from the identified strategies matched the observed choices in 73% of the cases. In a second study a similar result was

obtained, 67%. Moreover, we directly compared Mouselab and eye-tracking as measures of information search. We conclude that our method is a useful research tool.

87. Parochialism in the Marketplace

Szymanska, Ewa J. (University of Pennsylvania); Baron, Jonathan (University of Pennsylvania)

We used social dilemma (1-group, U.S.) and layered social dilemma (2-group, U.S. vs. foreign) paradigms to investigate the moderators of parochialism (ingroup bias toward the U.S.) in consumers' attitudes towards imported goods. 82 subjects responded to an on-line consumer choice questionnaire measuring willingness to pay more to support American workers. When subjects were told that they knew the workers personally, the bias toward U.S. workers (as opposed to foreign workers) was reduced. Parochialism may be stronger when people think more abstractly. Further studies aimed at identifying factors supporting or weakening parochial sentiments in the marketplace are underway.

88. When is Difficult Planning Good Planning? The Impact of Planning Difficulty on Optimistic Prediction Bias

Min, Kyeong Sam (University of South Dakota); Arkes, Hal R. (The Ohio State University)

We examined how dividing the upcoming planning process into multiple steps would impact the magnitude of the planning fallacy. In Experiment 1 we found a decrease in optimistic prediction bias when individuals described the upcoming task by generating a relatively difficult, rather than, a relatively easy scenario. In Experiment 2 we showed that scenario type moderated the role of planning difficulty. The optimistic prediction bias decreased when individuals envisioned the difficult, rather than the easy, optimistic scenario, thus replicating Experiment 1. However we also showed that the bias decreased when individuals generated the easy, rather than the difficult, pessimistic scenario.

89. From Thrift Stores to Cheap Old Lawyers: A Multi-Dimensional Association Approach to Sequential Consumer Judgments

Sleeth-Kepler, David (Stanford University); Wheeler, S. Christian (Stanford University)

This article shows that exposure to products in different consumer contexts can activate multi-dimensional associations that influence subsequent judgments of unrelated targets. Experiment 1 showed that estimating prices of expensive vs. cheap foreign cars influenced participants' subsequent estimates of the price of foreign, but not domestic, beverages. Experiments 2 and 3 showed that viewing the same products (e.g., old pieces of furniture) in different contexts (thrift vs. antique store) affected participants' estimates of the prices of old, but not young or newer, targets (i.e., lawyers and houses). Theoretical and practical implications of this multi-dimensional activation are discussed.

90. Processing Graphical Information: Perceptual Illusions of Risk and Return

Raghubir, Priya (UC Berkeley); Das, Sanjiv (Santa Clara University)

Individuals financial decisions are amongst the most important decisions they make. They frequently use graphical data to make such decisions. This paper examines how consumers process graphical information by sampling salient data points to assess the trend and noise of a price series. This leads to systematic biases in the estimates of risk and return of different graphs as a function of their mode of presentation. Theoretical implications for the processing of visual and financial information, and practical implications for the communication of financial products and consumer welfare are discussed.

91. Taking Statistics Courses May Increase Use of Sample Size Information

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

Normatively, the statistical power of a pairwise comparison is determined by the mean scores, the standard deviation of those scores, and the sample size. In our experiment two groups of undergraduates, one starting and the other finishing a statistics course, compared product pairs and judged their confidence that one product was better than the other. We manipulated (within subjects) the average product ratings, sample size, and standard deviation. Subjects gave the most weight to mean product ratings, and less weight to sample size and standard deviation. Subjects finishing the statistics class showed marginally higher weighting of sample size information.

92. How complex decision rules can impede behavior adherence

Mata, Jutta (Max Planck Institute for Human Development); Todd, Peter M. (Indiana University Bloomington); Lippke, Sonia (Freie Universitaet Berlin)

We investigated the impact that cognitive complexity of diet rules has on adherence to weight loss diets. We hypothesized that diets can fail if they are too complicated, so dieters cannot recall or apply all required information. Impact of excessive

cognitive demands was investigated 1) environmentally, by analyzing rules in diet books, and 2) from the dieter's perspective, in an online-questionnaire. Diets with more complex rules had lower adherence rates. Our longitudinal study of 1,200 dieters further showed that perceived difficulty predicts quitting the diet prematurely.

93. *Planning to use it everyday: Optimistic predictions about holiday gifts*

Vietri, Jeffrey T. (Rutgers, The State University of New Jersey); Schwartz, Janet (Princeton University); Chapman, Gretchen B. (Rutgers, The State University of New Jersey)

Anecdotal evidence suggests that no home cappuccino machine is used as frequently as its owner had intended. Research on forecasting has demonstrated people's tendency to make optimistic predictions in a variety of domains, which we extend to the use of consumer goods. We asked participants to estimate how frequently they would use the items they anticipated receiving for the holidays, and then contacted them again in the spring. As expected, participants reported using their items significantly less than they initially expected. A group of yoked participants tended to guess more accurately than the recipients themselves.

94. *Do Consumers Value Honesty? Impact of CSR Communication Strategies on Brand Attitude Change after Crisis*
Solelhac, Virginie (University Pompeu Fabra)

Consumers demand more information about companies' social behaviour. However, communicating too positively about corporate social responsibility (CSR) may be harmful for a company as this may raise consumers' expectations and result in greater attitude deteriorations if a crisis occurs. We propose that, to limit reputation damages from such crises, companies should communicate honestly about CSR issues, recognizing their limits. We model attitude change after crisis, extending the belief-adjustment model in order to include attribution effects. We test our hypotheses in a between-subject experiment. Results confirm that attitude decrease after crisis is the lowest for the firm having been communicating honestly.

95. *The impact of purchase frequency of goods with stable vs. enhanced prices on perceived inflation*

Huber, Odilo W. (Department of Psychology, University of Fribourg, Switzerland)

The impact of the frequency of purchase of individual goods with relatively stable vs. increased prices on the subjective experience of general price development, i.e. perceived inflation, is investigated. One group of cheap products with high purchase frequency, and one expensive group with low purchase frequency is presented. While increase of total expenditures was constant, relative to past reference prices either cheap goods were considerably more expensive and expensive goods were constant (experiment 1; in experiment 2 prices were slightly increased), in the other condition converse. In both experiments perceived inflation was higher in the first condition.

96. *Asymmetric Disconfirmation In Managerial Beliefs about Employee Motivation*

Markle, Alex (The Stern School of Business, New York University)

This paper investigates how asymmetric disconfirmation can lead to persistent biases in a manager's beliefs about employee motivation. Specifically, beliefs that emphasize the centrality of self-interest and effort aversion among employees will tend to produce self-fulfilling results. Through the undermining effect of extrinsic incentives and controls on intrinsic motivation and trust, the use of organizational controls can make otherwise intrinsically motivated employees behave as though they were the very homo-economicus the manager expects them to be. This process is asymmetric because where managers instead under-predict the importance of self-interest and effort-aversion, feedback will serve to disconfirm their beliefs.

97. *The role of the Attractiveness of the Stimuli in the Sunk Cost Effect in Children*

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

The sunk cost effect is a tendency in considering a prior investment for future decisions. Some works have investigated this phenomenon in children, showing inconsistent results. The aim of this study is to verify if the degree of attractiveness of the stimuli could affect answers for different developmental ages. With 14-year-olds, there was a significant difference between normative responses to stimuli with high attractiveness vs. low attractiveness. Non-normative answers can be due to the wish not to lose an attractive opportunity, and not to the consideration of sunk costs: this could explain the inconsistency of previous results.

Session #2 with Cash Bar (Sunday, 5:15- 7:15pm, Long Beach Convention Center, Grand Ballroom)

1. The Effect of Risk on Moral Cognition

Hudspeth, Christopher (University of South Florida); Schneider, Sandra (University of South Florida); Decker, Nathaniel (University of South Florida)

Recent work in cognition suggests that moral judgments occasionally inform our attribution of mental states rather than the other way round; that is, participants were found to be significantly less likely to attribute intentionality in cases where the agent was engaged in morally deplorable activities. This result challenges our usual conception of moral cognition by reversing the order of causation. Our study calls these conclusions into question by showing that the effect is not isolated to moral worth. By manipulating the probabilities involved we reveal that responses are sensitive to more than appeal to moral judgments can explain.

2. The role of egocentrism in judgmental biases in social comparison

ENDO, Yumi (Kansai University)

People sometimes judge that shared circumstances (factors that would generally hinder or help the absolute performance of all competitors) have more intense effect on their success or failure than on those of other people. One experiment was conducted to test whether this bias in direct comparison results from egocentrism, and if so, how it works in comparative judgmental processes. Japanese students tended to focus more on their benefit and adversity than on those of peers when they made direct comparative judgment. The role of egocentrism in making social comparative judgments under shared circumstances and its pancultural nature was discussed.

3. Cognitive modeling analysis of gambling tasks: measuring stable traits or just mimicry?

Ahn, Woo Young (Indiana University, Bloomington); Busemeyer, Jerome R. (Indiana University, Bloomington); Stout, Julie C. (Indiana University, Bloomington)

We provide evidence that cognitive modeling analysis of multi-alternative gambling tasks measure stable characteristics of an individual. Participants performed two independent gambling tasks and it was examined: 1. whether estimated parameters of an individual are consistent across tasks, 2. whether gambling decisions on one task can be predicted from parameters of the other task. Various models were tested at the individual level using generalization methods and simulations. Results show that models with a prospect utility function have the best accuracy, generalizability, and predictability. Specifically, their learning parameters, loss aversion, and choice consistency parameters were highly correlated across tasks.

4. 'Using the same processes, but different values' – Decision-making strategies of cancer patients in Germany and the USA *Wegwarth, Odette (Max Planck Institute for Human Development, Berlin, Germany)*

The tendency to focus exclusively on compensatory models when describing human decision-making has recently been questioned by findings that show the effectiveness of noncompensatory models. The purpose of the study was to investigate whether cancer patients' decisions on having a pharmacodiagnostic test were better described by either of the models. 116 German and 111 US cancer patients completed a case-vignette-questionnaire on this task. Results suggested that both samples were best described by a noncompensatory model. However, samples differed regarding the most decisive cue. Results highlight the importance of applying several plausible models in order to draw balanced conclusions.

5. The Effect of Belief in Implicit Assumption on Evaluation of the Enthymeme.

Tanaka, Yuuko. (Kyoto University); Kusumi, Takashi (Kyoto University)

This study examined the effect of implicit assumption belief on evaluation of the enthymeme, which is defined as a syllogism without a major premise. Thirty syllogisms of four types were used. Each type had the same logical structure but a different degree of belief in the major premise. Forty-five Japanese undergraduate and graduate students were asked to evaluate the acceptability of 30 enthymemes, the believability of 30 major premises, and the acceptability of 30 syllogisms. Results showed that the enthymeme with a relatively believable implicit assumption tended to be more accepted suggesting that students are influenced by what is unwritten.

6. Comparing Policy Use by those who Draft and those who Coach in the NBA

Young, Michael E (Southern Illinois University at Carbondale)

In the NBA draft, talent potential is assessed by a group of evaluators (e.g., coaches, personnel directors, general managers) who determine the order in which players are drafted, and talent actualization is assessed by a second group of evaluators

(coaches) who determine how much time players spend on the court. I examined the implicit policies used by these two groups of talent evaluators using both linear regression and nonlinear backpropagation. The use of a nonlinear technique produced better cross-validated fits than linear regression. The utility of the nonlinear approach to talent evaluation is considered.

7. Decision Making with Prostate Cancer

Simon, Jay (The Paul Merage School of Business, UC Irvine)

When diagnosed with prostate cancer, a patient has a difficult decision to make. There are several different treatment alternatives available, with varying cure rates and probabilities of side effects over a period of many years. This paper describes a well-informed, objective, and personalized model for comparing treatments and helping a patient make the best possible decision.

8. A critical analysis on pseudodiagnosticity

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

Three experiments were designed to investigate the pseudodiagnosticity bias as a failure to identify and select diagnostically relevant information. The reported experiments aim to understand the influence of different factors on a classical pd task: the Rarity factor (in terms of the rarity of the evidential features and the explicit information presented to the subjects), the role of expertise (physicians vs. non experts) and the pragmatic factors involved in some of the scenarios used in recent studies (Feeney et al., 1997, 2000; Evans et al., 2002). Results show the limits of the standard paradigm used to investigate the pseudodiagnosticity.

9. Modeling Decision Situations with Spatially-Varying Attributes

Keller, L. Robin (Univ. of Calif., Irvine); Kirkwood, Craig (Arizona State Univ.); Simon, Jay (Univ. of Calif., Irvine)

Regional planning decisions, such as water resources planning, involve alternatives with impacts that vary geographically. This paper applies multiattribute value and utility theory to develop preference functions to address such decisions in a way that is both prescriptively sound and practical for elicitation from decision makers. Application examples are provided.

10. Consumer usage of positive and negative customer reviews in online decision making tasks

Willemsen, Martijn C. (Eindhoven University of Technology)

Web shops increasingly use online reviews, written by other customers, to help consumers make decisions. On the one hand, positive reviews are more frequent and also are rated as more helpful by customers (e.g. on amazon.com). On the other hand, Loss Aversion would predict that negative reviews should play a more prominent role in the decision making process. We employed an online experiment, mimicking a web shop, in which we observed actual review looking behavior by participants. Viewing A task interaction was observed: for judgment negative reviews received more attention, for choice looking behavior differed between chosen and non-chosen options.

11. Strategies for estimation: When do estimations follow an exemplar-based versus a rule-based cognitive process?

von Helversen, Bettina (Max Planck Institute for Human Development); Rieskamp, Jörg (Max Planck Institute for Human Development)

Recently von Helversen & Rieskamp (in press, JEP:General) proposed a new theory for estimations from multiple cues, the mapping model. In this paper we investigate under which circumstances competing models such as an exemplar model provides a better account of human estimation in comparison to the mapping model. First results indicate that knowledge about the cues is decisive. When knowledge about the cues exists, rule-based processes like the mapping model are employed, however if the direction and the predictiveness of cues is unknown and difficult to learn, participants switch to an exemplar-based process.

12. The Gambler's Fallacy and the Hot Hand: Trajectories and Long-Run Probabilities

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

The gambler's fallacy and hot hand effect, which are defined as using previous random outcomes as criteria for future choices, have long been argued to be irrational. We use simulations of a series of lottery choices to examine differences in outcome distributions as a function of different decision strategies. We show that susceptibility to the gambler's fallacy or

hot hand effect has systematic effects on long-run probabilities of ending up relatively rich or poor. These results suggest that static models of choice strategies, including those relying on expected values/utilities, cannot adequately capture critical aspects and impacts of decision-making strategies.

13. *How memory limits strategy selection: The fluency heuristic*

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

The fluency heuristic (e.g., Whittlesea) is a strategy for judging the values of objects on quantitative criteria. In Schooler and Hertwig's (2005) ACT-R-implementation of it, the heuristic predicts higher values for those objects that are fluently retrieved from memory. Other strategies base such judgments on explicit knowledge about the objects. The mechanisms for strategy selection between the fluency heuristic and these knowledge-based strategies are unknown. We show how human memory limits the situations in which the fluency heuristic competes with knowledge-based strategies for strategy selection: Retrieval fluency is most likely relied on when a person is unable to recall knowledge.

14. *Manipulating the Reasons for Optimism: Reversing Bias by Shifting Consequences*

Armor, David A. (San Diego State University); Sackett, Aaron M. (University of Chicago GSB)

Prediction biases are often considered unwanted and irrational, but we suspect that forecasters may sometimes commit such biases strategically. We independently manipulated financial costs of making optimistic and pessimistic errors in predictions of an upcoming test performance. Results revealed consistent bias in the direction opposite the most costly type of error, and little or no bias when these error costs were balanced. An optimization model revealed that, if anything, participants ought to have exhibited greater bias in order to maximize the expected value of their predictions. Discussion focuses on how strategic concerns may contribute to optimistic and pessimistic biases.

15. *Intuited Consequences of Prediction Biases and their Effects on Unrealistic Optimism*

Sackett, Aaron M. (University of Chicago GSB); Armor, David A. (San Diego State University)

We examine the hypothesis that intuited consequences of errors in personal predictions influence people's tendency to be optimistically biased about their future. When asked to list consequences of making optimistic and pessimistic errors, participants indicated that they saw optimistic errors as being generally beneficial rather than costly. In a separate study, a non-conscious priming task manipulated the cognitive accessibility of consequences favoring optimistic versus pessimistic errors. Results revealed that participants exhibited greater optimistic bias after being primed with consequences favoring optimistic errors rather than consequences favoring pessimistic errors. Theoretical and practical implications for the study of optimistic biases are discussed.

16. *Resolving ethical dilemmas: Exploring the role of moral principles*

Blais, Ann-Renee (Defence R&D Canada Toronto); Thompson, Megan (Defence R&D Canada Toronto)

This exploratory study looked at various components of the ethical decision-making process, their interrelations, and their links to hypothetical choices. The 64 participants reflected upon 6 ethical dilemmas varying in moral intensity, rated various aspects of these dilemmas, and selected their preferred courses of action. Resulting from multilevel analyses, our findings suggest that there was significant within- and between-subjects variability in the extent to which the participants relied on the various moral principles to resolve the dilemmas. We discuss the potential implications of such individual differences in the use of moral principles.

17. *Mechanisms of Superior Judgment Under Uncertainty: Rational Choices from Simple Heuristics and Elaborative Strategies*

Cokely, Edward T. (Max Planck Institute for Human Development); Kelley, Colleen M. (Florida State University)

What are the cognitive mechanisms that give rise to rational judgment under uncertainty? In a series of two experiments, protocol analysis and cognitive ability measures (e.g. CRT, working memory span, numeracy) demonstrated that rational choices are rarely the product of expected value calculations and instead often result from simple considerations. The observed considerations were similar to those described by the priority heuristic; however, the priority heuristic otherwise predicted majority choices very poorly. Critically, individual differences in elaborative processes (e.g. more and more varied considerations) were strongly related to rational choices and fully mediated the cognitive abilities and rational choice relationships.

18. *Evidential Reasoning in Teacher Assessment*

Recesso, Arthur (Learning & Performance Support Lab., University of Georgia); Templin, Sara E. (Georgia Center for Assessment, University of Georgia); Ekici, Celil (Learning & Performance Support Lab., University of Georgia); Cohen, Allan (Georgia Center

One example of a high-stake decision making situation is the recertification of induction (beginning) teachers. The teacher assessment process lacks systematic procedures for interpreting evidence of performance. Hence, critical decisions such as recertification are left to blunt instruments used with unsystematic classroom evaluations. A panel of assessment professionals created a list of teacher attributes necessary for recertification. Through the combination of Multi-Attribute Decision Making theory, Video Analysis Tool (VAT), and certainty factor modeling software, value weightings for teacher attributes were obtained, providing a way to verify the information provided by the assessment professionals while understanding how teacher attributes are aggregated.

19. The effect of information distribution on the communication of magnitude judgment
Qian, Jing (Max Planck Institute for Human Development); Olsson, Henrik (Max Planck Institute for Human Development)

In a series of studies, we investigate the effect of pay-off function and the orthogonal effect of distribution density of magnitudes. We used the paradigm of assigning 9 magnitudes of squares sizes into 5 verbal categories under two different payoff structures. Of these 9 squares, their frequency distribution is either positively skewed or negatively skewed. We found that when error is penalized by direction, adherence to the frequency principle is more fruitful. However, when the size of error is penalized, compromise with the range principle minimizes error more than either the range-only strategy or the rank only strategy.

20. Scientific objectivity: Everyone's imaginary friend
Wintle, Bonnie C. (University of Melbourne); Fidler, Fiona (University of Melbourne); Burgman, Mark (University of Melbourne)

Expert judgment is routinely sought in environmental decision-making. While experts may be better judges than lay-people, they are not immune to cognitive frailties. One of the lesser explored frailties is a tendency to perceive oneself as objective, while supposing that others (especially those who offer different viewpoints) are subjective, emotive and/or biased. This phenomenon is observed among experts in a case study of sustainable harvesting of species with both conservation and economic significance. It is particularly noteworthy that all the experts in this case are scientists, whose authority is based on an appeal to objectivity and empiricism.

21. Fishing for the right words: Human foraging behavior in external and internal search tasks
Wilke, Andreas (UCLA Anthropology); Todd, Peter M. (Indiana University); Hutchinson, John M.C. (Max Planck Institute for Human Development)

Animals foraging for resources distributed in patches must decide when to leave a depleted patch. Optimal foraging theory predicts behavior, but does not specify a mechanism. Biologists have proposed alternative decision mechanisms and calculated in which environments each performs well. We studied the mechanisms underlying human foraging behavior, testing whether the strategies directing animals when to leave a food patch also underlie human decision-making. We present two experiments, one requiring external and the other internal search, but with closely matched environmental parameters. Subjects used decision strategies appropriate to the type of resource distributions most commonly found in nature.

22. Ratings of Physicians Relying on Experts Versus Physicians Relying on Decision Aids
Probst, C. Adam (Wichita State University); Shaffer, Victoria (Wichita State University); Lambdin, Charles (Wichita State University); Arkes, Hal (Ohio State University); Medow, Mitchell (Ohio State University)

The use of computers as aids in medicine has proven to be beneficial. However, physicians who use computer-assisted diagnostic aids are rated less favorably by patients than physicians who make unaided diagnoses (Arkes, Shaffer, & Medow, 2007). The source of the diminished ratings could be due to either the act of consulting an outside source or the dehumanizing presence of the computer. This research examines these competing hypotheses in a vignette-based study by comparing ratings of three physicians: one who makes an unaided diagnosis, one who consults another physician, and one who uses a computer-assisted aid.

23. Similarity and Temporal Distance
Day, Samuel B. (Northwestern University); Bartels, Daniel M. (University of Chicago)

Similarity plays a central role in human cognition, affecting how individuals organize their knowledge, and how they use prior experience in judging and interpreting new situations. We present evidence that subjective similarity may change as a function of temporal distance, with some events seeming more similar when considered in the near future, while others increase in similarity as temporal distance increases. These effects were also found for events described in the near and distant past. By affecting subjective similarity, these temporal distances should have a significant impact on people's knowledge and judgments.

24. Framing in Text Ads: Preferences for Grammar Structures Depending on Valence of Information

Nelson, Noelle M. (University of Minnesota); Malkoc, Selin A. (University of Minnesota)

When communicating in written language, active voice is recommended as being the most understandable and favorable. Indeed, content analyses reveal that advertisers overwhelmingly use active grammar when presenting ads. However, it is not clear that using active voice is best when conveying negative information (e.g., side effects of a drug). In experiments using different domains (e.g. technical and medical) we find evidence that although active grammar leads to favorable attitudes and higher purchase intent (given positive information), passive grammar can help “buffer” consumer evaluations from negative information. We discuss the grammar effect in terms of framing and present possible mechanisms.

25. Part-Set Cuing in Option Generation

Del Missier, F. (University of Trieste); Terpini, C. (University of Trieste); Gerbino, W. (University of Trieste)

The part-set cuing effect has been widely studied in memory research, but almost neglected in decision making. Therefore, very limited empirical evidence on part-set cuing in option generation is available and a convincing explanation of the effect is lacking. To fill these gaps, we carried out three studies on option generation in decision scenarios. In Experiment 1, we observed a significant decrease in generation performance when potential options were presented as cues. Experiment 2 provided evidence for an inhibition-based explanation and against the strategy disruption account. Experiment 3 showed a part-set cuing effect in a sample of older adults.

26. How the ‘400 people not saved’ matter: Processes behind the framing effect

Schulte-Mecklenbeck, Michael (University of Bergen); Kuhberger, Anton (University of Salzburg)

We investigate information leakage in framing tasks using process tracing and ask whether there are differences in the information acquisition process resulting from different information setups? With MouseLabWeb we build four different versions of the task. First we demonstrate a base effect with more attention to the finally chosen option in the process data. By adding a hint or the actual information in Program A participants preferences are changed (no framing effect). The process data result in a reversed pattern in these conditions. Even subtle changes in the amount of information presented to participants result in different preferences.

27. Use of heuristics, the influence of emotions, and the effects of framing on decisions about climate change and food safety
Soane, Emma (Kingston Business School)

This study examined individual differences in decision styles and the consistency of decision making for climate change and food safety and four frames (high risk, low risk, high benefit, low benefit). 1000 participants completed an online survey (mean age = 37.3, 41.4% male). Consistent decision makers had preferences for active information search and consistent perceptions of benefits. Participants that were susceptible to framing effects preferred to use heuristics and were more variable in the perceived costs and benefits of choices. The implications for communicating uncertain information and understanding the influence of emotions and heuristics on decision making are discussed.

28. When a Negotiation is About Price, Selling Fits Promotion and Buying Fits Prevention

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

We explore regulatory fit in negotiation as the relation between chronic regulatory focus and role. We hypothesized that the conditions creating fit depend on what the negotiation is about, which determines the frames adopted. In a non-hypothetical price-only negotiation, buyers adopted a loss/non-loss frame and sellers adopted a gain/non-gain frame. Given these frames, there was a fit between the buyer role and prevention focus and between the seller role and promotion focus. Prevention-focused buyers and promotion-focused sellers were in regulatory fit and rated their randomly assigned roles higher in terms of strength of engagement, fit and feeling “right.”

29. Earwitness misinterpretations: Top-down biases of auditory evidence.

Lange, Nick D. (University of Oklahoma); Thomas, Rick P. (University of Oklahoma); Dana, Jason (University of Pennsylvania); Dawes, Robyn (Carnegie Mellon University)

We investigate an important facet of “earwitness” testimony--how people translate degraded speech using context. Of interest here is that people find recorded dialogues with high frequencies (> 670 hertz) removed nearly impossible to understand. Yet, when provided with context information, they experience “hearing” the dialogue quite clearly. Two studies manipulated the context of dialogue, e.g., by telling people it was drawn from an interview of a criminal suspect, and/or by providing inaccurate transcripts to show that misinterpretations arise from top-down processes. We have shown that these factors within the legal system shape expectations and bias interpretations of auditory evidence.

30. Bad advice alters choice in the probabilistic selection task

Doll, Bradley B. (NDSL / ARG, Psychology, University of Arizona); Frank, Michael J. (LNCC, Psychology, University of Arizona); Sanfey, Alan G. (NDSL, Psychology, University of Arizona); Jacobs, W. Jake (ARG, Psychology, University of Arizona)

Subjects chose probabilistically rewarded stimuli from three pairs. A test phase followed in which they chose from novel pairings of the same stimuli. Those who were misinformed about optimal choice tended to choose in accordance with the inaccurate advice, despite the repeated negative feedback that resulted from such choices. This effect of misinformation carried over into the test phase, where subjects tended to select the advised stimulus over others with higher probabilities of reward, despite having learned the correct probabilities of these other stimuli in their original training pairs.

31. Interval judgments when variability is real: The case of statistical replication

Lai, Jerry (La Trobe University, Melbourne Australia); Fidler, Fiona (La Trobe University, Melbourne Australia); Cumming, Geoff (La Trobe University, Melbourne Australia)

You conduct an experiment, analyse the data, and calculate a p value. What p is a replication experiment likely to give? We emailed the authors of journal articles and asked them to state their estimated 80% uncertainty interval in response to this question—which refers to a statistical distribution, not a single unknown quantity. Our question format was designed to minimise over-confidence, so narrow intervals signal inaccurate intuitions about replication p, not a judgment bias attributable to our procedure. We report severe under-estimation of p intervals (80% prediction intervals for replication p) by published researchers in psychology, statistics, and medicine.

32. Evaluating experts’ interval judgments

McBride, Marissa (University of Melbourne, Australia); Burgman, Mark (University of Melbourne, Australia)

33. Decision Making Style as a Predictor of Depression

Zarnoth, Paul (Saint Mary’s College of California); Freimuth, John W. (Saint Mary’s College of California); Pope, Jenna E. (Saint Mary’s College of California); Rodriguez, Megan I. (Saint Mary’s College of California)

This study tested a cognitive model of depression. The model predicted that decision making styles (analytic, intuitive) underlie a variety of cognitive processes (e.g., rumination, regret, decision confidence) which, in turn predict levels of depression. There was little support for the hypothesized model. For example, decision styles were not correlated with either rumination or decision confidence. However, multiple regression did reveal that more intuitive decision makers were less at risk for depression while those who ruminate more about their choices were at greater risk for depression. Results also suggest interesting gender differences in decision style, regret, confidence and depression.

34. Dynamic interactions in medical decision making in Emergency Departments

Guglielmetti, Chiara (State University of Milan); Gilardi, Silvia (State University of Milan); Pravettoni, Gabriella (State University of Milan); Vago, Gianluca (State University of Milan)

The contribution analyzes decision making in a medical context. In some critical care environments medical decisions are taken by single physicians, but they are situated within a process of interaction with other professionals. The objective is to describe the interactive dynamics that sustain the information flow and support decision making through a workplace study in two emergency departments. Data were collected through observations, interviews and questionnaires. The results show that in emergency departments a clear separation of tasks is not the only strategy that is utilized, nor does it guarantee per se the quality of the decision making process.

35. *Effects of Motivational Orientation on Decision Making in Virtual Teams*

Melchior, Stefan N. (University of Rostock); Nerdinger, Friedemann W. (University of Rostock)

Although a large body of research has examined virtual teams, little is known about decision making processes in virtual teams. This study examined the effects of motivational orientation. Two types of teams were created on the basis of social motives, egoistic and prosocial. Four hundred twenty-three business students solved a three-issue, three-person-team negotiation task via computer-mediated, text-based communication. Prosocial teams exchanged more information and less opinion, and showed more positive and less negative social-emotional reactions than prosocial teams did. Information exchange mediated the relationship between motivational orientation and team outcome. Prosocial teams exchanged more information and therefore reached higher outcomes.

36. *Citizens' conceptions of their duty*

Baron, Jonathan (University of Pennsylvania)

Citizens could use their votes, and other potential actions, to advance the good of all people. Instead, many people see their duty as advancing the good of their nation (or some other unit) even when the harm to outsiders outweighs the good to co-nationals (insiders). These "parochial" attitudes are often moralistic, that is, values that people have for others, without regard to whether honoring these values causes conflict with the values of those affected. And they are often seen as objective, not as social norms, and as absolute (protected from trade-offs).

37. *What goes up must come down: Cognitive, ecological, and contextual accounts of trend damping in judgmental forecasting*

Harvey, Nigel (University College London); Reimers, Stian (University College London)

Judgmental forecasts from time series data tend to lie below upward trended data series and below downward trended ones. This trend damping may arise because people anchor on the last data point and adjust insufficiently for the trend. Alternatively, environmental trends may become damped: people may be adapted to this. Third, the phenomenon may be a context effect: in past studies, people's forecasts may have been influenced by the average trend in data. We show context effects are present but cannot fully explain damping. We also find 'anti-damping' for some series that is inconsistent with under-adjustment from an anchor.

38. *The information bias in medical decision making*

Pravettoni, Gabriella (University of Milan); Lucchiari, Claudio (University of Milan); Leotta, Salvatore Nuccio (University of Milan); Vago, Gianluca (University of Milan)

The current research examines the effect of perceived impulsivity on blame. We predicted that an impulsive action could either be seen as a product of the actor's disposition (in which case impulsivity reflects the actor's character and increases blame) or as a product of the situation (in which case impulsivity reflects situational pressures, and decreases blame). In particular, we predicted that emotional arousal should draw attention to the situation, so that perceived emotional arousal coupled with impulsivity would decrease blame, while impulsivity in the absence of emotional arousal would increase blame. These predictions were supported in four studies.

39. *The Superset Bias*

Peterson, Nathaniel R (Carnegie Mellon); Dawes, Robyn M (Carnegie Mellon)

In *Secrets*, his memoirs of the Pentagon Papers, Daniel Ellsberg warns Henry Kissinger of the dangers associated with acquiring privileged information, especially when that information comprises a superset of the information held by other decision makers. We theorize that The Superset Bias is driven by more than the superset holder's hubris. The purpose of this work is to demonstrate that, even in minimally enriched situations, superset information is overweighted relative to comparable information that does not subsume another information set. We believe the tendency to overweight superset information stems from an intuitive exaggeration of the value of updating strategies.

40. *Compensatory selection among noncompensatory tools: Reevaluating the nature of fast and frugal heuristics*

Hochman, Guy (Technion - Israel Institute of Technology); Ayal, Shahar (Duke University)

Noncompensatory models for choice propose a good approximation for the way individuals choose among several alternatives. These models assume that individuals use a cue-wise search pattern in a lexicographical order, without using any compensatory principles, (e.g., weighting and summing). Recently, Gigerenzer and colleagues proposed fast and frugal

heuristics which generalized the noncompensatory principles to human preferences and inferences. According to the authors, these heuristics model cognitive processes, and not just predicts behavior. Two experiments were designed to examine the validity of this claim. The results suggest that choice processes require, at least to some extent, compensatory processes which enable trade-off.

41. Numeracy and Natural Frequencies in Bayesian Reasoning

Liu, Jingjin (Rutgers University); Chapman, Gretchen B. (Rutgers University)

In previous research Bayesian reasoning is improved if probability information is presented as natural frequencies. Who benefits most from natural frequencies? 342 participants completed two Bayesian problems (one medical and one automotive). For each participant, one problem was presented using probabilities and the other using natural frequencies (counterbalanced). Participants also completed a 10-item numeracy scale. For participants scoring high in numeracy, Bayesian performance was better in the natural frequency condition than in the probability condition (40% vs. 11% correct), but for low-numeracy participants, performance did not differ (20% vs. 12% correct). Thus, only high-numerates benefitted from frequency presentation.

42. How to mislead without lying: Selective presentation of results

Silverman, Gabriel K. (Carnegie Mellon University); Anderson, Britta (American College of Obstetricians & Gynecologists); Loewenstein, George (Carnegie Mellon University); Zinberg, Stanley (American College of Obstetricians & Gynecologists); Shulkin, Jay

One mechanism by which physicians are influenced by conflict of interest may be that they do not consider the ways in which pharmaceutical representatives selectively present evidence. We found results consistent with this in 253 physicians randomly assigned to read one of eight versions of a hypothetical scenario, including an abstract from a randomized trial finding positive results for a fictitious new drug. Most participants said they had “no way of guessing” how favorable the results of this study were toward the new drug, relative to other published trials, even when the research was presented by a pharmaceutical representative.

43. Trait Transference in Reputation Markets

Sivanathan, N (Kellogg School of Management - Northwestern University)

Transactions in a marketplace require agents within this market to brave considerable risk in choosing to transact with an individual for the first time. When individuals lack knowledge about the person they hope to interact with, individuals rely on reputation systems for direct, personalized knowledge of that individual. Results across two experiments involving the trust game, suggest that individuals partake in shallow associative cognitive processes that often bind trait-implying messages of others to the messenger. Results also suggest that communicators with negative [positive] traits can diminish [damage] their reputation by communicating positive [negative] traits about other members within a market.

44. Memory and Judgment Bias in Retrospective Evaluations

Aldrovandi, Silvio (City University, London (UK)); Poirier, Marie (City University, London (UK)); Ayton, Peter (City University, London (UK))

Judgment biases in retrospective evaluations (e.g. primacy and recency) have been mainly attributed to on-line processing. In the present series of studies, the role of memory in retrospective judgment biases was investigated. It is shown that pleasantness ratings for lists of words closely reflected the memory participants exhibited for them. Recalling a negative item (the “Peak”) was associated with more unpleasant judgments. Moreover, the impact of the Peak on pleasantness ratings was predicted by its recall rate, and both were successfully manipulated in the last experiment. A memory-based approach to retrospective evaluation is discussed.

45. Information search and outcome focus in medical decisions from experience

Pachur, Thorsten (University of Basel); Riepl, Patrick (University of Basel)

We compared decisions from description and decisions from experience both in a neutral monetary context (monetary gambles) and in an affect-rich context (medical gambles). Previous research showed that in the latter, people seem to undervalue probabilities and instead focus on outcomes (e.g., Rottenstreich & Hsee, 2001). Using a paradigm that allowed us to compare medical and monetary decisions for gambles of equal expected value, we found that people searched for less information when they made medical (rather than monetary) decisions from experience. Moreover, medical decisions were primarily based on outcomes, whereas in monetary decisions both outcomes and probabilities were considered.

46. *My loss is your loss...but only if I say so: Loss aversion and the effect of motivational biases*

Wilson, Robyn S. (The Ohio State University); Arvai, Joseph L. (Michigan State University); Arkes, Hal R. (The Ohio State University)

A series of experiments were conducted to test for loss aversion in attributed choice across a variety of decision contexts. Initial results revealed that loss aversion predicts the manner in which individuals attribute value to the financial gains and losses of others. However, similar evaluations within social and environmental contexts did not exhibit either personal or attributed loss aversion. Loss aversion even appeared to reverse when subjects were asked to predict how someone else would value the subjects' own losses. Future results and the implications of these findings for policy and management decision making will also be discussed.

47. *A study of the conjunction fallacy using an ecologically representative design were the representativeness heuristic can not be applied.*

Nilsson, Håkan (Department of psychology, Uppsala university.); Winman, Anders (Department of psychology, Uppsala university.)

The present study introduces a novel experimental paradigm for studying the conjunction fallacy. The goal was to study if conjunction fallacies occur in a situation where the representativeness heuristic, commonly argued to be the key cognitive process behind the fallacy, could not be allied and where an ecologically representative design, previously shown to eliminate both overconfidence and the hindsight bias, was used. High levels of conjunction fallacies were observed. Thus, conjunction fallacies occurred even though the representativeness heuristic could not be applied and even though an ecologically representative design was used.

48. *Most People are Above-Average, Sometimes*

Roy, Michael M. (Elizabethtown College)

People tend to rate themselves as above average on a number of skills. This appears to be illogical; the majority of people cannot be above average. However, if people are basing self-ratings on level of competence, and the distribution of the skill in the population is negatively skewed, then in fact most people can be above average. Participants rated themselves on ten skills and then assessed the distribution of those skills in the population. Result suggests that people might not be overly optimistic about their abilities and that bias in self-ratings is due to the shape of the ability distribution.

49. *Why does the base rate appear to be neglected? The equiprobability hypothesis*

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

The base rate fallacy has been considered to result from people's tendency to ignore the base rates given in tasks. However, it has not been realized that the tasks in which the fallacy is commonly observed share a specific probability structure. The equiprobability hypothesis (Hattori, 2002, 2003) explains the mechanism that produces the fallacy, as well as other types of fallacy in deductive and inductive reasoning. This hypothesis predicts that task material that overrides people's default assumption can facilitate normative Bayesian inferences. The results of our experiments supported this prediction, while none of the existing theories can explain the results.

50. *Metacognitive processing in different types of tests*

de Carvalho F., Moises K. (Kyoto University); Isobe, Miyoshi (Meiji University)

This study investigated the effects of tests types and students' academic achievement and metacognitive skills on test performance, confidence judgments, and on the accuracy of those judgments. Results revealed that 1) high- and low-achievers' performances significantly differ in all but in true-or-false tests; 2) high-achievers with high metacognitive skills were significantly more stable in their local confidence judgments across tests than all other groups of students; and 3) low-achievers' global accuracy in essay tests leaned towards overconfidence and significantly differed from all other types of tests. In contrast, high-achievers' global accuracy leaned towards underconfidence and did not differ across tests.

51. *A critical meta-analytic perspective of the components of the Lens Model Equation in judgment achievement*

Kaufmann, Esther (University of Mannheim, Germany); Sjö Dahl, Lars (University of Lund, Sweden); Athanasou, James A (University of Technology, Sydney); Wittmann, Werner W, University of Mannheim, Germany

The Lens Model Equation (LME, Tucker, 1964) quantifies the judge-environment interaction expressed as judgment achievement. Since Tucker's publication there has not been a meta-analysis of the Lens Model studies. A meta-analysis over

LME-components is presented. Firstly, by describing and analyzing variations among individual data, restricted to idiographic studies, the importance of an idiographic approach is underlined (see Kaufmann, Sjö Dahl, & Mutz, 2007). Secondly, a meta-analysis of studies with a nomothetic approach is presented (see Kaufmann & Athanasou, 2007). These two meta-analyses will be compared to discuss research on judgment and decision making in the framework of Social Judgment Theory.

52. How an Assessment Orientation Produces Over-correction in Negotiation

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

We investigate the potential costs of a chronic assessment orientation, which is a tendency to make comparisons and critical evaluations (Higgins, Kruglanski, & Pierro, 2003). In two negotiation studies, high assessors displayed an over-correction bias – suppressing the typical negotiation responses (Wegener & Petty, 1995). In Study 1, high assessors forfeited a more profitable option for an alternative that allowed more comparisons of multiple attributes. In Study 2, a real negotiation, assessment interacted with motivational orientation and negotiator role to eliminate the typical advantages of regulatory fit (a match between orientation and role) of higher positive affect and performance expectations.

53. Individual differences in the reliance on belief and logic across multiple reasoning domains.

Martin, Nadia (University of Waterloo); Fugelsang, Jonathan A. (University of Waterloo)

In two experiments, we examined the degree to which beliefs and logic are used across deductive and causal reasoning tasks. Whereas the use of beliefs in the causal task was predictive of belief use in the deductive task, the use of logic was uncorrelated between the two tasks. In a second study we examined the degree to which individual differences in thinking dispositions and cognitive abilities predicted reasoning behaviours across these two reasoning domains. The findings from these two experiments will be discussed in terms of current dual-process models of reasoning.

54. Consumer Perceptions of Intelligence Forecasts

Dieckmann, Nathan F (Decision Research & University of Oregon); Mauro, Robert (Decision Research & University of Oregon); Slovic, Paul (Decision Research & University of Oregon)

Few studies have focused on consumer perceptions of forecasts. We investigated consumer perceptions of warnings/indications intelligence forecasts, which consist of narrative evidence descriptions and numerical probability estimates. The presence of a narrative evidence description and the probability format affected perceived risk and perceptions of the quality of the forecast. Numerical ability had a robust effect on perceived risk and perceptions of quality. Consumers varying in numeracy were differentially affected by the narrative information and showed different preferences for the formatting of probability information. Forecasters should be sensitive to narrative descriptions, probability format and consumer numeracy when presenting forecasts.

55. Strength of Handedness and Sunk Cost

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

Strength of handedness has been linked to episodic memory, attribute framing, and anchoring, as well as other cognitive domains. The present study explored a possible link between strength of handedness and sunk cost. Past research indicates that individuals who use both hands equally (mixed-handers) have shown more aversion to risk, suggesting they would be likely to show a smaller sunk cost effect than individuals who use one hand almost exclusively (strong-handers). The opposite was found, with mixed-handers to exhibit larger sunk cost effects. This suggests that mixed-handers may judge the prospect of terminating as riskier than continuing a project.

56. Authoritarianism, social dominance orientation, and perceptions of threat in predicting judgments of support for the policy of preemption

Dunwoody, Philip T. (Juniata College); Plane, Dennis L. (Juniata College); Rice, Devin (Stony Brook University)

The policy of preemption minimizes false negatives (military action not taken against a valid target) at the expense of maximizing false positives (military action taken against an invalid target). Based on this framework, we hypothesized that participants' perceptions of threat (false positives and false negatives) should be related to their judgments of support for the war in Iraq and the policy of preemption. We also hypothesized that perceptions of threat should mediate the relationship between authoritarianism and social dominance orientation and judgment of support for the policy of preemption. Survey data from 249 participants support our hypotheses.

57. The Changing of an Occupied Mind: Belief Adjustment under Divided Attention

Harbison, J. Isaiah (University of Maryland); Dougherty, Michael R. (University of Maryland)

This study investigated the role of attention in belief-adjustment processes. Half the participants completed a belief updating task under full attention while half completed the task under divided attention. In addition, we measured individual differences in delusionality. Delusionality has previously been linked to abnormal belief adjustment. For low-delusionality participants, divided attention led to decreased use of new information in the belief updating task. In contrast, for high-delusionality participants divided attention led to judgments that resembled those of schizophrenics. The results suggest an important role of attention in the belief adjustment.

58. Differences in the subjective utility of gains as a function of mindfulness

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

Mindfulness is a quality of consciousness defined by heightened awareness of and attention to the present moment. Mindfulness is seen as a self-regulatory capacity that facilitates intrinsic motivation and mastery orientation, while mitigating ego-involvement in extrinsic outcomes such as money or status. Recent evidence suggests that although mindful individuals make decisions as well as less mindful individuals, they are less extrinsically motivated for material gains. This study found that, whereas there is no difference in decision-making between mindful and less mindful individuals with random chance wagers, mindful people evidence significantly less focus on monetary outcomes with wagers dependent upon control.

59. Repeated trust interactions with non-random matching protocols

Murphy, Ryan O. (Columbia University); Rapoport, Amnon (University of Arizona)

Results from iterated trust games show substantial and persistent individual differences in decision-makers' proclivity to trust and act trustworthy. We use an iterated Real Time Trust Game (RTTG) as a framework to explore the population dynamics of trusting behavior while varying the matching protocol used to join players over repeated trials. Matching similar players affects the overall level of trust in the population as well as the dynamics of play. Significant effects are observed when the non-random protocol is used and it is made common knowledge. These results are discussed in terms of learning and credible signaling between players.

60. Similarity in intertemporal choice: an outcome and process approach

Stevens, Jeffrey R. (Max Planck Institute for Human Development)

The hyperbolic and exponential models have dominated studies of intertemporal choice. However, similarity-based models allow for predictions of decision processes as well as outcomes. I tested subjects in standard intertemporal choice tasks (e.g., choosing between \$12 in 36 days or \$18 in 51 days?) presented using a process-tracing procedure. Two similarity-based models (a proportional difference model and a weighted ratio model) accounted for the outcome data better than the hyperbolic and exponential models. Additionally, the process-tracing data indicated that subjects made alternative-wise rather than attribute-wise choices, suggesting that they may be comparing rates of gain across alternatives.

61. Tethered by tense: "Reality checks" constrain retrospection more than prospection

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

People's thoughts about past events are more constrained by "reality checks" and contain greater contextual detail than people's thoughts about the future. Results from four experiments indicated that: compared with thoughts about future events, participants given a forced choice between action identifications consider past events more concretely; descriptions of past events contain more idiosyncratic details than future events; past events feel more different from each other than future events; and thinking about past events feels less imaginative than thinking about future events. Theories of judgment over time that are agnostic to tense are descriptively incomplete and should incorporate temporal asymmetries.

62. The Incongruence between Jurors' Probability Judgments and their Verdicts

Arkes, Hal R. (Ohio State University); Mayes, Ryan S. (Ohio State University); Shoots-Rinehard, Brittany (Ohio State University); Slesman, Dustin J. (Ohio State University)

In 1992 Wells published a landmark study that examined the astonishing non-congruence between mock jurors' verdicts and their judged probability that the defendant was responsible for the damages. We utilized subjects in a national sample of jury-eligible adults to try to determine what factors were responsible for the verdicts in the Wells scenarios. Among the strongest determinants was a juror's ability to imagine the defendant committing the deed versus the juror's ability to imagine a counterfactual. Jurors' opinions about the value of statistical evidence and base rate information appeared merely

to be post-hoc rationalizations for the verdict the juror favored.

63. *A change in medical risk perception over treatment stages of blood cancer patients*

Hirahara, Norimichi (Grad. Sch. of Decis. Sci. & Tech., Tokyo Inst. of Technology); Yamagishi, Kimihiko (Grad. Sch. of Decis. Sci. & Tech., Tokyo Inst. of Technology)

We investigated risk perception as it appears to cancer patients. A wealth of anecdotal evidence led us to hypothesize that patients' risk attitude would change from an incipience stage, wherein they are preoccupied by optimism toward complete treatment, to a recurrence stage, wherein they accept the realistic need to cohabitate with the disease. One hundred and ninety patients of leukemia and lymphoma answered a web questionnaire of risk attitudes. Two-factorial (treatment stage X disease type) ANOVA showed an interaction that decreasing risk optimism upon recurrence was presented only for lymphoma patients. Hence, our prediction gained partial support.

64. *The Dynamics of Aging and Disease Risk Recognition*

Finucane, Melissa L. (Kaiser Permanente Center for Health Research, Hawai'i); Williams, Andrew E (Kaiser Permanente Center for Health Research, Hawai'i)

Declines in physical resilience in later life mean that poor judgments by older adults about their health can have dramatic consequences. In this paper, we present two studies that used the multiple cue probability learning paradigm to examine older versus younger adults' abilities to learn to change their evaluations of diabetes risk under the impetus of external stimuli in a probabilistic environment. Overall, the results showed that external cues (symptoms) that are inversely (versus directly) related to disease status are particularly challenging for older adults to understand and use. We will discuss the theoretical and practical implications of the findings.

65. *The Great Between-Subjects Assumption*

Lambdin, Charles (Wichita State University); Shaffer, Victoria (Wichita State University)

There seems to be an a priori assumption that many JDM findings will only be supported in between-subjects designs, even though between-subjects results can be nebulous and misleading, and not all JDM constructs are operationally defined in such a way that renders between-subjects findings relevant. Direct within-subjects support might suggest that phenomena are more robust than previously thought, and could constitute the first direct evidence supporting phenomena that have hitherto been inappropriately studied. The present study tested the "between-subjects assumption" by taking three famous JDM findings that primarily enjoy only between-subjects support, and replicated them within subjects.

66. *Covariance analysis of the hard-easy effect*

Merkle, Edgar C. (Wichita State University)

The hard-easy effect, an often-noted finding in the study of confidence calibration, states that judges tend to exhibit more overconfidence for harder sets of stimuli. In this poster, I mathematically examine the hard-easy effect, deriving necessary and sufficient conditions for observing it. These conditions have implications for precisely defining "hard-easy effect," as well as for confidence modeling more generally. In particular, the conditions under which we will observe a hard-easy effect are not very restrictive. This implies that other confidence calibration measures are necessary for distinguishing between confidence models.

67. *The overweighting of rare events in decisions from experience*

Haberstroh, Susanne (University of Osnabrück, Germany); Körner, Dorothee (University of Osnabrück, Germany)

Recent research could show that in decisions from experience (i.e. repeated sampling of instances) people tend to underweight rare events compared to decisions from descriptions (i.e. summary description of outcomes and their probabilities) (e.g. Hertwig, Barron, Weber & Erev, 2004). The two experiments reported here demonstrate that when eliminating the impact of sampling error (i.e. the undersampling of rare events in a binomial distribution) and if the rare event is the most positive one, the reverse pattern - overweighting of rare events - can be observed. This decision pattern occurs because the frequency of very positive events is overestimated.

68. *Decisions about alcohol use among youth*

Weiss, Jie W. (California State University, Fullerton); Mouttapa, Michele (California State University, Fullerton)

Decisions about Alcohol Use among Youth In two separate studies, we used a descriptive Multi-Attribute Utility (MAU) model that includes a new momentary salience parameter to predict alcohol initiation among middle students and continued

drinking among college students. The model captures the role of anticipated consequences of alcohol use (e.g., being more popular, feeling more relaxed, and liver damage) in the decision to use alcohol. Higher MAU scores were significantly associated with drinking frequency and drinking amounts for college students. On the other hand, MAU was not significantly associated with alcohol initiation among middle school students.

69. Emotions in the process of risky decision making: Spontaneous verbal expressions

Bär, Arlette S. (University of Fribourg, Dep. of Psychology, Switzerland); Huber, Odilo W. (University of Fribourg, Dep. of Psychology, Switzerland); Huber, Oswald (University of Fribourg, Dep. of Psychology, Switzerland)

Our experiment investigates spontaneous verbal expressions of immediate emotions during information search in quasi-naturalistic scenarios. We expect immediate emotions to play a central role in the decision process, both in evaluation and in controlling the decision process. 198 Subjects got a description of a decision scenario with 8 risky alternatives. Subsequently they asked questions, and got corresponding answers. Spontaneous verbal statements were recorded and coded according to their emotional content. Results confirmed the hypotheses: evaluation related emotions connected with the inspection of consequences were observed as well as process related emotions connected with risk defusing and decision.

70. Emotional processes in decision behavior of empathizers and systemizers

Samson, Andrea C. (Dep of Psychology, University of Fribourg, Switzerland); Baer, Arlette S. (Dep of Psychology, University of Fribourg, Switzerland)

Systemizing is the drive to analyze and construct systems, empathizing is the ability to identify mental states and respond to these appropriately. In this study, the decision process and the involved emotional processes of empathizers and systemizers is investigated by using the Thinking Aloud method. Three quasi-realistic decision tasks are presented and the decision process is investigated with the Active Information Search method. The results demonstrate that empathizers give more emotional comments, whereas systemizers describe their decision process more systematically. The analysis of emotional facial expressions by means of the Facial Action Coding System reveals differences in empathizers and systemizers.

71. Modeling option generation and resulting choices in realistic, dynamic sports situations

Raab, Markus (University of Flensburg); Johnson, Joseph G. (Miami University); DeCaro, Daniel (Miami University)

We present empirical support of a model that relates athletes' performance strategies to self-generated options and subsequent choices in an ill-defined task. We formalize a mathematical model that predicts athletes' initial action in a realistic game situation based on the sequence of gaze fixations. Model predictions concerning the number and quality of these options, choice from among them, and response times were verified by empirical data. Expertise-based differences were also revealed. We discuss the theoretical and methodological implications of these results and the advantages of understanding decision behavior by simultaneously considering human information search (via eye-tracking), option generation, and choice.

72. Heuristics and Group Decision Making: More Can Be Less and Less Can Be More

Luan, Shenghua (Singapore Management University); Katsikopoulos, Konstantinos (Max Planck Institute); Reimer, Torsten (University of Maryland, College Park)

In this study, we compared the decision performance of two groups: one with members using the Take-the-best (TTB) heuristic and the other with members using the Minimalist (MIN) heuristic. While TTB requires members to have precise knowledge about the task environment, MIN requires them to know nothing. It turned out that the ignorant MIN group can beat the knowledgeable TTB group in environments where information is more evenly distributed among the cues. Moreover, this group-level less-is-more effect will be magnified when group size is large, knowledge has to be acquired through learning, and cues' information is subject to errors.

73. The Effects of Problem Source and Personal Relevance on Solution Generation

Milch, Kerry F. (Columbia University); Weber, Elke U. (Columbia University)

This study examined the effects of personal relevance and problem source (self vs. experimenter) on solution generation to education and climate change problems. Some participants generated problems related to education or climate change and then selected one for which they subsequently generated solutions. Other participants generated solutions to problems provided by the experimenter. For the education domain, source (self vs. experimenter) interacted with personal relevance (high vs. low), with more solutions generated for the given problem in the low personal relevance condition but more solutions provided for the self-generated problem in the high personal relevance condition. Additional analyses are underway.

74. *When good decisions have a bad outcome: A biasing effect of experienced regret on subsequent choices*
Marcatto, Francesco (University of Trieste); Ferrante, Donatella (University of Trieste)

This study shows how the influence of experienced regret could induce people to switch from making normative good choices to selecting suboptimal alternatives. We used a switching paradigm which involved playing two rounds of Blackjack for real money. In both rounds the participants had to choose to stand or hit with a score of 18. After the first round, the emotions experienced by the participants were assessed using a questionnaire. Results showed that the decision to switch from the normative decision, thus making a suboptimal choice, was more frequent for participants who had experienced regret in the first round

75. *The regret frequencies and the ease retrieval of action/inaction regret*
Dohke, Rumiko (Hitotsubashi University); Murata, Koji (Hitotsubashi University)

We examined whether current self-report of past regrets would be affected by the subjective experience of ease of retrieval. Participants were asked to recall action or inaction regrets and to describe either six (difficult task) or two (easy task) of those regrets. And then, they rated frequencies of regretful events overall. As a result, the expected interaction was significant. In inaction regret condition, when the recall task was difficult, they rated higher frequencies of regretful events than when it was easy. In action regret condition, there was no significant difference between easy and difficult task condition.

76. *Why Are We in Dread of SARS?*
Xie, Xiaofei (Peking University); Zheng, Rui (Chinese Academy of Science); Stone, Eric (Wake Forest University)

This study examined the effect of the SARS crisis on the psychological state of people both in and around epidemic areas of China during the time of the crisis. A questionnaire was designed to measure personality factors, beliefs regarding SARS, reactions to SARS, and measures of dread regarding SARS. The findings demonstrate that personality characteristics and beliefs as well as more objective elements of the situation each had unique effects on the reactions to and amount of dread associated with SARS. Specifically, we propose a "Typhoon Eye Effect" to describe the spread of psychological anxiety.

77. *A Fuzzy-Trace Theory of Developmental Differences in Gist-Based Thinking and Risk-Taking*
Estrada, Steven M. (Cornell University); Reyna, Valerie F. (Cornell University); Mills, Britain A. (Cornell University)

Contrary to traditional theories, fuzzy-trace theory argues that qualitative, intuitive thinking (gist) advances with age. Further, this advanced way of thinking acts to support the prevention of risk taking. Five scales were examined with respect to developmental differences. Three factors measured levels of gist-based thinking in a group of adolescents, along with two verbatim measures. It was hypothesized that higher levels of gist-based processing will be related to less sexual behavior and lower intentions more for older children than for younger children. The results confirm the hypothesis, informing our knowledge of risk perception's relation to behavior.

78. *Self-Other Differences in Decision Making*
Choi, YoonSun (Wake Forest University); Stone, Eric R. (Wake Forest University)

According to Stone and Allgaier's social values account of self-other differences, decisions for others will be more risk-taking than decisions for the self when risk taking is valued, and less risk-taking for others than for the self when risk aversion is valued. We tested this account by examining decisions involving relationships, where taking risks is valued, and decisions involving physical safety, where taking risks is not valued. As predicted, people made more risk-taking decisions for others than for themselves in relationship scenarios but more risk-averse decisions for others than for themselves in physical safety scenarios.

79. *Manipulating Maps to Affect Risk Perception: The Effects of Landmarks and Dimensionality*
Gane, Brian D. (Georgia Tech); Turaga, Rama Mohana R. (Georgia Tech); Bostrom, Ann (Georgia Tech); Catrambone, Richard (Georgia Tech); Riggieri, Alison (Georgia Tech); Wood, Sara K.

We examined visualization techniques that might affect risk perception. Participants (N = 80) viewed 3 earthquake scenario maps in a 2 x 2 experiment (w/o landmarks x w/o satellite imagery). Maps with landmarks reduced subjective risk assessment, as measured by a set of risk perception items (e.g., likelihood of building damage, likelihood of fatalities, etc.). One hypothesis for this result is that viewing landmarks increased feelings of familiarity, and these feelings of familiarity reduced risk assessments (Fischhoff et al, 1978; Alberini et al., 2007).

80. *Decision under Uncertainty: The Roles of Perceived Riskiness and Perceived Ambiguity*

Davis, Fred D. (University of Arkansas); Aloysius, John A. (University of Arkansas); Venkatraman, Srinivasan (University of Arkansas)

Research in psychology and cognitive neuroscience has established that riskiness and ambiguity are distinct dimensions of decision making under uncertainty. However, the causal interplay between riskiness and ambiguity as determinants of decision making has not been fully explicated. Four experiments confirmed our hypothesis that perceived ambiguity has both a direct influence on decision making, over and above perceived riskiness, and an indirect influence mediated through perceived riskiness. Studies 1, 2, and 3 manipulated ambiguity and confirmed both the direct and mediated effects. Study 4 manipulated riskiness to further confirm its mediational role via an experimental-causal-chain design.

81. *Decision Making about Uncertain Environmental Risks with Ethical Implications*

Kortenkamp, Katherine V. (University of Wisconsin, Madison); Moore, Colleen F. (University of Wisconsin, Madison)

Researchers and policy makers acknowledge the high levels of uncertainty surrounding estimates of environmental risks and the important ethical challenges decision makers face in addressing environmental risks. However, there is limited research on how uncertainty and ethical issues in combination influence risk perceptions. In a set of experiments we examined how explicit information about both ethical issues and the uncertainty of risk estimates influence risk perceptions, moral evaluations, and emotional reactions. We found that ethical issues and emotional reactions influence perceptions of risk and uncertainty and that uncertainty influences moral reasoning in response to ethical issues.

82. *Thin Slices of a Competitor's Thin Slices: Forming and Applying an Accurate Model Leads to Performance in Strategic Competition*

Willaby, Harold W (University of Sydney); Burns, Bruce D (University of Sydney); Vollmeyer, Regina (Universität Frankfurt)

Using a "thin slices" approach to study strategic competition, we examined the effect on performance of accurately modelling not only a competitor, but also accurately modelling a competitor's model of oneself. We manipulated an anonymous, two-person, zero-sum, repeated-interaction game to encourage the formation and application of a functionally accurate model. Results suggest this led to improved performance, and that "thin slices of a competitor's thin slices of self" can be used to form models of competitors' models leading to successful competition. Mere models of competitors were not associated with performance.

83. *The Role of Expectancies in Decision Making Under Ambiguity*

Levin, Irwin P. (University of Iowa); L'auriola, Marco (University of Rome); Rouwenhorst, Robert (University of Iowa); Hamilton, Mitchell (Clark Atlanta University)

We developed a paradigm for studying decision making under ambiguity in real-world contexts. We estimate the point of indifference along a continuum of probability levels between a risky option with known probability of success or failure and an ambiguous option with unknown probability. Examples include choosing between existing and new medical treatments and investment programs. We show that the indifference point varies as a function of whether probability information is framed in terms of success or failure and the decision maker's prior expectation for success or failure, sometimes leading to a reversal of the usual ambiguity avoidance phenomenon.

84. *Do limited samples and limited memory explain the description-experience gap?*

Hau, Robin C. (University of Basel); Pleskac, Timothy J. (Indiana University); Hertwig, Ralph (University of Basel)

In decisions from experience, people make choices between monetary gambles by first sampling from their options inconsequentially and using this sample-information to make a final choice. Rare events have been found to have less impact on such decisions than they have on description-based decisions. We compared the effects of sampling one outcome after the other with sampling several outcomes at once. The latter eliminated the need to store the sampled information in memory. Nonetheless, rare events had little impact on choices in both conditions. We conclude that neither memory constraints nor small samples suffice to explain the description-experience gap.

85. *Neurological basis of temporal construal theory*

Ramchandran, Kanchana (University of Iowa); Levin, Irwin (University of Iowa); Gruntler, Ashley (University of Iowa); Harshman, Lyndsay (University of Iowa); Tranel, Daniel (University of Iowa); Denburg, L. Natalie (University of Iowa); Bechara, Antoine (

According to temporal construal theory, people construe the near-term future at concrete, subordinate levels and the long-term future at abstract, supra-ordinate levels. Patients with bilateral lesions to the ventro-medial prefrontal cortex (VMPFC) were measured on temporal construal tasks. Results show higher concrete thinking and lower abstract thinking in these patients, than non-lesion comparisons. Also, their ability to think of the long-term future is significantly impaired compared to the near-term. These preliminary results suggest that temporal construal theory has a neurological basis and that the VMPFC is a key neural substrate for the construal of the long-term future.

86. A pragmatic approach to the Ratio Bias

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

The ratio-bias (RB) phenomenon refers to the perceived likelihood of a low probability event as greater when it is presented in the form of larger (10-in-100) rather than smaller (1-in-10) numbers. In literature the RB effect was attributed to the System 1. In the present work we investigate the RB from a pragmatic perspective. The aim of the research is to show that the cause of this phenomenon is the presence of misleading elements in the text that activate the System 1. The elimination of the misleading elements activates the System 2 and the subjects answer in a rational way.

87. Different meanings of risk - the case of the cement industry

Szanto, Richard (Corvinus University of Budapest)

Myriads of unwanted facilities were rejected by local communities and other stakeholders in the past decades, and public opposition campaigns were often successful. To explore influencing factors three case studies were elaborated in the domain of the Hungarian cement industry. By tracing siting decision making, important factors of risk perception could be identified. Case study results suggest that risk perception of the public is influenced by several factors, and political and social factors are salient. Risk perception is not a merely individual process, but rather a social construction where different actors influence the generation of the meaning of risk.