

**Tentative Program**  
**Annual Meeting of the Society for Judgment and Decision Making**  
**November 18-19, 1990**  
**Hyatt Regency Hotel, New Orleans, Louisiana**

**Sunday, November 18**

- 2:00-2:05 Opening Remarks (*Reid Hastie*, University of Colorado)
- 2:05-4:15 Symposium: "Decision Making in Competitive Contexts"
- Max Bazerman and Margaret Neale* (Northwestern University) -- "Conceptual Overview"
- Leigh Thompson* (University of Washington) and *George Loewenstein* (Carnegie-Mellon University) -- "Information, Ambiguity, and Egocentric Interpretations of Fairness in Dyadic Negotiations"
- Elizabeth Mannix* (University of Chicago) and *Sally White* (Northwestern University) -- "Coalition Formation in Decision Making Groups: The Effects of Resource Allocation Schemes"
- Colin Camerer* (University of Pennsylvania) -- "Judgment Biases in Economic Markets"
- Kathleen Valley, Sally White, Margaret Neale, and Max Bazerman* (Northwestern University) -- "The Impact of Information Revelation Sharing through Agents in Negotiations"
- Constance Stillinger* (Northwestern University) and *Lee Ross* (Stanford University) -- "Reactive Devaluation in Negotiation"
- Discussants: *Daniel Kahneman* (University of California, Berkeley) and *Zur Shapira* (New York University)
- 4:15-4:45 Coffee Break
- 4:45-5:15 Hillel Einhorn New Investigator Award  
(presented by *Gary McClelland*, University of Colorado)
- 5:15-6:15 Business Meeting
- 6:15-8:15 Poster Session, Syllabus Exchange, and Reception with Cash Bar

Program Committee: *Reid Hastie* (University of Colorado), *George Loewenstein* (Carnegie-Mellon University), *Frank Yates* (University of Michigan)

**Poster Session Program**

- Mark S. Anspach*, Kansas State University  
*James Shanteau*, Kansas State University  
 "A Decision Making Approach to the Choice to Seek Medical Treatment"
- Peter Ayton*, City of London Polytechnic  
*Nigel Harvey*, University College London  
 "Effects of Dyadic Collusion on Confidence in Control Judgments"
- R. F. Bordley*, General Motors Research Laboratories  
 "Expectations + EU Theory = Bayesian Prospect Theory"
- Timothy Buckley*, University of Illinois  
*Janet A. Sniezek*, University of Illinois  
 "Confidence as Influence in a No Feedback Choice Task"
- Peter Carnevale*, University of Illinois  
*Kathleen O'Connor*, University of Illinois  
*Christopher McCusker*, University of Illinois  
 "Effects of Decision Frame, Task Structure, and Past Experience on Bargaining"
- Peter Carnevale*, University of Illinois  
*Alan Mead*, University of Illinois  
 "Decision Frame in Mediator Perception"
- Jeff T. Casey*, SUNY, Stony Brook  
 "Numbing and Sensitizing Effects of Prior Outcomes on Buyers/Sellers"
- Russell S. Cooper*, University of Illinois UC  
*Peter J. D. Carnevale*, University of Illinois UC  
 "Effects of Asymmetric Time Pressure on Mediator Perceptions and Behavior"
- Russell S. Cooper*, University of Illinois  
*Janet A. Sniezek*, University of Illinois  
 "Information Processing in the Adviser-Judge Paradigm of Group Decision-Making"
- S. Corcoran-Perry*, University of Minnesota  
*S. Narayan*, Metropolitan State University  
 "Cardiovascular Nurses' Decision Making: Processes and Outcomes"
- James K. Doyle*, University of Colorado  
*Gary H. McClelland*, University of Colorado  
*William D. Schulze*, University of Colorado  
 "Response Variation to Alternate Framings of Cumulative Low-Probability Risk"
- Stephen E. Edgell*, University of Louisville  
 "Relevant Dimensional Information Facilitates the Utilization of Configural Information"
- Charles R. Enis*, Penn State University  
*Lynn M. Pringle*, Penn State University  
 "Inflation Adjusted Data Usage, Expertise and Stock Purchase Judgments"

David Faust, University of Rhode Island  
 Hal R. Arkes, Ohio University  
 Thomas J. Guilmette, Rhode Island Hospital  
 "Neuropsychologists' Predictions of Everyday Functioning"

Deborah Frisch, University of Oregon  
 Steven K. Jones, University of Oregon  
 "Assessing the Accuracy of Decisions"

Robert S. Gable, Claremont Graduate School  
 "Comparative Risk Perception of Drugs by Toxicologists and by Adolescents"

H. Gertzen, University of Heidelberg  
 F. Schmalhofer, Universität Kaiserslautern  
 K. M. Aschenbrenner, Frankfurt  
 D. Albert, University of Heidelberg  
 "Criterion-Dependent Choices Between Binary Alternatives Presented by Name or Description"

Catherine Hackett-Renner, University of Tennessee, Memphis  
 Linda H. Eck, Memphis State University  
 Robert C. Klesges, Memphis State University  
 "Biases in Physician's Misdiagnosis of Obesity"

Robert M. Hamm, Army Research Institute, Leavenworth, Kansas  
 "Relative Importance in Prediction: Influence of Story Facts and Mood"

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 David Holtgrave, University of Oklahoma  
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 "Evidence for a 'Risky Drift' in Choice Under Uncertainty"

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 "WTA/WTP Preference Reversals"

Nancy L. Johnson, University of Michigan  
 J. Frank Yates, University of Michigan  
 "Expectations, Meaning, and Covariation Judgments for Quantities"

Benjamin Kleinmuntz, University of Illinois at Chicago  
 Arthur S. Elstein, University of Illinois at Chicago  
 "Toward Medical Decision Making Expertise"

Harvey Langholtz, University of Oklahoma  
 Charles Gettys, University of Oklahoma  
 Bobbie Foote, University of Oklahoma  
 "The Allocation of Resources Over Time: Making Things Last Under Risk"

Rodney Lim, Tulane University  
 Peter Carnevale, University of Illinois, Champaign-Urbana  
 "Influencing Mediator Risk Perception and Behavior Through Bargainer Framing"

Laurie Z. Liska, University of Texas at Arlington  
 David A. Harrison, University of Texas at Arlington  
 "Utility and Risk Over Time: Individual Differences and Outcome Categories"

Christopher McCusker, University of Illinois  
 Peter Carnevale, University of Illinois  
 "Decision Framing and Cooperation in Social Dilemmas"

Mary E. McLaughlin, University of Texas at Arlington  
 David A. Harrison, University of Texas at Arlington  
 "Structure of Time Judgments at the Level of Behavioral Choices"

Jeryl L. Mumpower, State University of New York at Albany  
 Thomas Darling, State University of New York at Albany  
 "The Effects of Problem Structure on Negotiation Process and Outcome"

Sharon A. Mutter, The Catholic University of America  
 Rebecca M. Pliske, Marymount University  
 Steven Baker, The Catholic University of America  
 "Age Differences in Covariance Judgments"

Paul W. Paese, University of Missouri-St. Louis  
 Maryellen Kinnaly, University of Missouri-St. Louis  
 "Effects of Interaction and Role on Overconfidence in Interpersonal Judgment"

Ramona L. Paetzold, Texas A & M University  
 Steve Willborn, University of Nebraska  
 "Self-Publication in Defamation Law: Changes in Employer/Employee Decision-Making"

Paul C. Price, University of Michigan  
 J. Frank Yates, University of Michigan  
 "Covariation Assessment: The Effect of Predicting One Quantity from Another"

Barbara A. Reilly, Clemson University  
 "Self-Insight in Judgment: A Process Tracing Approach and Verbal Reports of Mental Processes: More on Knowing and Telling"

J. Carlos Rivero, New York University  
 Robert Bontempo, Columbia University  
 "Predicting Responses to Decision Ambiguity"

Donald U. Robertson, Indiana University of Pennsylvania  
 Susan Zimny, Indiana University of Pennsylvania  
 "A Connectionist Model of Bayesian Inference"

Jaceli L. Rodgers, North Carolina State University  
 "Avoiding Anchoring and Adjustment Bias: Task Familiarity and Nonmonetary Incentives"

Lisa Scherer, University of Nebraska at Omaha  
 Joseph Brown, University of Nebraska at Omaha  
 Fred Amis, Amis & Associates  
 John Sunderman, Amis & Associates

"Self-Justification and Ambiguity in Decisions to Escalate Commitment"

Karen Siegel-Jacobs, University of Michigan

J. Frank Yates, University of Michigan

"Improving Judgment Accuracy Through Procedural Accountability"

Janet A. Sniezek, University of Illinois

Joselito C. Luaihati, University of Illinois

"The Effects of Reward Contingencies on Judgments of Future Performance"

Janet Sniezek, University of Illinois

Michael Olson, University of Illinois

"Within-Subject Differences in Confidence Assessments: Confronting the Subjects"

Eric R. Stone, University of Michigan

J. Frank Yates, University of Michigan

"Communications About Low-Probability Risks: Effects of Alternative Displays"

Ramzi Suleiman, University of Arizona

Amnon Rapoport, University of Arizona

David V. Budescu, Haifa University

"Two Models for the Provision of Step-Level Public Goods"

R. Scott Tindale, Loyola University

Susan Sheffey, Loyola University

Joseph Filkins, Loyola University

"Conjunction Errors by Individuals and Groups"

Carla C. van de Sande, Ohio State University

T. Nygren, Ohio State University

"Numerical and Verbal Probability Estimates in Temporally Presented Sequences"

Carol Varey, University of California at Berkeley

Daniel Kahneman, University of California at Berkeley

"Evaluation of Temporally-Extended Outcomes"

Joanne Vining, University of Illinois

Kimberly G. Doty, University of Illinois

"Profiles of Emotions in Environmental Decisions"

Thomas S. Wallsten, University of North Carolina-Chapel Hill

Claudia C. Gonzalez, University of North Carolina-Chapel Hill

"I Read It—It Must Be True"

Margaret A. Waterman, Ohio State University

Thomas E. Nygren, Ohio State University

"Conjoint Analyses of Numerical and Verbal Probabilities in a Medical Decision Task"

A. Zimmer, Universität Regensburg

"Communicating Qualitative Information in Group Decision Making"

Monday, November 19

8:00-8:30 Continental Breakfast

8:30-10:00 Symposium: "Contingent Valuation Methods"

Gary McClelland (University of Colorado) -- "Introductory Remarks"

William Schulze and Gary McClelland (University of Colorado) -- "The Robustness of Values from Contingent Valuation Surveys"

Daniel Kahneman (University of California, Berkeley) and Jack Knetsch (Simon Fraser University) -- "Valuing Public Goods: The Purchase of Moral Satisfaction"

Baruch Fischhoff (Carnegie-Mellon University) -- "Measuring Values: A Skeptical View of Contingent Valuation Methods"

V. Kerry Smith (North Carolina State University) -- "The Contingent Valuation Method: Weighing the Pros and the Cons"

Discussants: -- to be named

10:00-10:30 Coffee Break

10:30-11:45 Invited Presentation: Charles Plott (California Institute of Technology)  
 "Experimental Economics"

11:45-1:00 Luncheon

1:00-2:00 Chairperson's Address: Lola Lopes (University of Iowa)

2:00-3:30 Symposium: "Distributed Representation and Parallel Processing Models for Judgment and Decision Making"

Reid Hastie (University of Colorado) -- "Introductory Remarks"

Elke Weber (University of Chicago) -- "Implications of Parallel Distributed Memory Assumptions for Judgment and Decision Making Models"

Bill Goldstein (University of Chicago) -- "Parallel Processing Implications for Theory and Methods in Judgment and Decision Making"

Jerry Busemeyer (Purdue University) -- "How Does an Adaptive Network Learn to Achieve its Goals?"

Greg Oden (University of Iowa) -- "The Robustness of Emergent Decisions"

3:30 Adjournment



# **JUDGMENT / DECISION MAKING**

## **POSTER SESSION PROGRAM**

**November 18, 6:15 - 8:15 PM**

*Hyatt Regency Ballrooms A-B-C*

Annual Meeting  
Judgment and Decision Making Society  
November 18 - 19, 1990  
New Orleans



1

Mark S. Anspach and James Shanteau, Kansas State University

*A Decision Making Approach to the Choice to Seek Medical Treatment*

A decision making approach was employed to study the process of seeking treatment for a medical illness. Subjects examined descriptions of a health problem including situational factors, and rated the perceived severity, the perceived strength of barriers, and the likelihood of seeking treatment for each. Mean group responses differed depending on the symptom type but interacted with gender. Each factor or cue was found to have the strongest influence on one of the dependent measures.

2

Peter Ayton, City of London Polytechnic  
Nigel Harvey, University College London*Effects of Dyadic Collusion on Confidence in Control Judgments*

This paper reports a simulation of medical decision making which was used to study the effect that reaching a dyadic consensus has on confidence of success of treatment decisions. Judgments of response efficacy were overconfident and were made more so by the act of reaching a consensus. The consensus decision is closer to the initial individual decision that is more confident and more correct. Interestingly, the influences of confidence and correctness on consensus are independent.

3

R. F. Bordley, General Motors Research Laboratories

*Expectations + EU Theory = Bayesian Prospect Theory*

Individuals have prior expectations of success or failure prior to being given any lotteries. They therefore modify their perception of lotteries in light of these expectations. This gives a theory which is similar to SSB Theory and Prospect Theory and predicts independence violations and intransitivity.

4

Timothy Buckley and Janet A. Sniezek, University of Illinois

*Confidence as Influence in a No Feedback Choice Task*

The effects of reward conditions on choices and confidence assessments are examined. Advisors rewarded for aiding judge accuracy were significantly less confident than those rewarded for their ability to influence the judge. Advisors rewarded for their influence were more likely to attain judge agreement than were advisors rewarded for accuracy. However, this ability decreased over trials. Implications are discussed and future directions suggested.

5

Peter Carnevale and Alan Mead, University of Illinois

*Decision Frame in Mediator Perception*

Decision frame is extended to social perception and a mediator's perception of bargainer concessions. When mediators saw a concession by bargainers who had a negative frame (bargainers were trying to prevent a loss) the bargainers were seen as more cooperative than bargainers who made the *equivalent concession* but who had a positive frame (bargainers were trying to make a gain). There may be systematic biases in the way mediators make judgments of bargainer cooperativeness.

6

Peter Carnevale, Kathleen O'Connor, and Christopher McCusker  
University of Illinois*Effects of Decision Frame, Task Structure, and Past Experience on Bargaining*

This study examined the effects of decision frame (gains vs. loss), task structure (integrated vs. segregated), and past experience (success vs. failure) on negotiation behavior. We tested an adaptive aspirations hypothesis that the impact of prior success and failure would be greater for bargainers with a loss frame than a gain frame. The hypothesis was supported. Bargainers with a negative frame made the greatest concessions (were risk averse) after a failure experience, and fewest concessions (risk seeking) after success.

7

Jeff T. Casey, SUNY, Stony Brook

*Numbing and Sensitizing Effects of Prior Outcomes on Buyers/Sellers*

Prospect theory-based models are proposed that predict large variation in discrepancies between willingness to pay (maximum buying price) and compensation demanded (minimum selling price) depending on the sizes of "unadapted" prior gains and losses. For example, a prior gain may numb a buyer's loss aversion and virtually eliminate otherwise robust buyer-seller gaps. An experimental test is reported and implications for the common practice of providing experimental participants with initial stakes are discussed.

8

Russell S. Cooper and Peter J. D. Carnevale, University of Illinois

*Effects of Asymmetric Time Pressure on Mediator Perceptions and Behavior*

Mediators make decisions about how to get negotiators to agree. We show that mediator perception is affected differently by time pressure on the mediator versus time pressure on negotiators. Subjects (mediators) had either high or low time pressure, and dealt with simulated negotiators who had either high or low time pressure. Negotiator time pressure affected the mediator's likelihood estimate of agreement; mediator time pressure affected the mediator's sense of urgency to reach agreement. This had implications for mediator behavior.

9

Russell S. Cooper and Janet A. Sniezek, University of Illinois

*Information Processing in the Adviser-Judge Paradigm of Group Decision-Making*

This study examines a judge's (decision maker) search for information from a set of advisers prior to making a final judgment. The judge's level of confidence is tracked from the initial pre-search to the point of the final judgment. The proposed model predicts the judge's confidence will increase monotonically as a function of the information gained during the search. The search process appears to be described by a confidence threshold model, or by an asymptotic confidence model.

10

S. Corcoran-Perry, University of Minnesota  
S. Narayan, Metropolitan State University*Cardiovascular Nurses' Decision Making: Processes and Outcomes*

A proposal for studying nurses' clinical decision making will be shared as a stimulus for discussion with participants. The study involves paradigmatic and methodological triangulation to gain an understanding of the complex phenomenon of clinical decision making. Information Processing Theory and Heideggerian Phenomenology provide the philosophical perspectives. Verbal protocol, interview, and observation methods will be used to reveal nurses' use of analytical and intuitive processes, as well as their lived experience with clinical decision making.

11

James K. Doyle, Gary H. McClelland, and William D. Schulze, University of Colorado

*Response Variation to Alternate Framings of Cumulative Low-Probability Risk*

Responses to four alternate framings of cumulative low-probability risk were elicited in a market-like environment in which subjects bid for insurance to protect themselves from the risk. Simply communicating the high probability associated with the cumulative risk generated concern but increased the frequency of extremely inappropriate responses. In contrast, offering subjects the opportunity to purchase insurance which protected them for the long cumulated time span increased interest in obtaining protection without resulting in extreme responses.

12

Stephen E. Edgell, University of Louisville

*Relevant Dimensional Information Facilitates the Utilization of Configural Information*

A recent modification (Edgell & Morrissey, 1987) to the Castellan and Edgell (1973) model reversed its prediction on the effect of relevant information on the utilization of relevant configural information. Subjects in a nonmetric multiple-cue probability learning study showed greater utilization for configural information when the pattern contained a relevant dimension than when the relevant dimension was outside of the relevant pattern. This is in accord with the predictions of the revised model.

13

Charles R. Enis and Lynn M. Pringle, Penn State University

*Inflation Adjusted Data Usage, Expertise, and Stock Purchase Judgments*

Inflation adjusted ratios were given to professional and nonprofessional investors who then made stock purchase judgments. Linear response models determined the degree of inflation data usage. The subjects' market outlook was a covariate to control for predispositions. The professional investors were able to impound the consequences of inflation in their judgments regardless of their usage of inflation adjustment information; whereas only the nonprofessional investors who used this information were able to make such judgments.

14

David Faust, University of Rhode Island  
Hal R. Arkes, Ohio University  
Thomas J. Guilmette, Rhode Island Hospital*Neuropsychologists' Predictions of Everyday Functioning*

Neuropsychologists were surveyed with a patient description plus bar graph indicating neuropsychological deficits in 7 areas. The independent variable differentiating groups was the pattern of deficits. Only in the control group did no test result deviate from normal by more than 0.5 SD. Results: On 8 of 15 scales a group other than the control group was rated as least impaired. On only 5 scales was the control group rated closer to "unimpaired" than "impaired."

15

Deborah Frisch and Steven K. Jones, University of Oregon

*Assessing the Accuracy of Decisions*

Kahneman and Tversky (1984) distinguish between "decision utility," which is inferred from a person's choices, and "experience utility," which corresponds to how she would actually experience the consequences of a decision. We define an accurate decision as one in which there is a one-to-one correspondence between decision and experience utility. We propose empirical and theoretical methods for assessing the accuracy of decisions. We show how our approach leads to a new perspective on a variety of behavioral phenomena, including risk aversion, the Allais paradox, and framing effects.

16

Robert S. Gable, Claremont Graduate School

*Comparative Risk Perception of Drugs by Toxicologists and by Adolescents*

On the basis of a literature review, a data table was compiled summarizing the acute toxicity and the dependency potential of 16 psychoactive substances (e.g., alcohol, cocaine, marijuana). This table was critiqued by a group of 13 toxicologists and psychophysiologists. A questionnaire listing the same substances was completed by a nonrandom group of forty 17- to 19 year olds recruited from street corners. Correlations of these data will be presented.



## 17

H. Gertzen, University of Heidelberg  
F. Schmalhofer, University of Kaiserslautern  
K. M. Aschenbrenner, Hoechst AG, Frankfurt  
D. Albert, University of Heidelberg

### *Criterion-Dependent Choices Between Binary Alternatives Presented by Name or Description*

In order to conceptualize the influence of two different presentation modes of binary choice alternatives (names or multidimensional descriptions) upon the cognitive choice processes, two models were specified within the framework of criterion-dependent choice. Data from several experiments were analyzed with respect to model predictions. The proposed models were found to account for the similarities as well as for the differences in choice behavior when the alternatives were presented by name or description.

## 18

Catherine Hackett-Renner, University of Tennessee, Memphis  
Linda H. Eck and Robert C. Klesges, Memphis State University

### *Biases in Physician's Misdiagnosis of Obesity*

Physician's judgment of obesity appears to be affected by gender of the patient. Physician's judgment of obesity was compared to an objective index of lean body mass (weight in kg/height in cm/100<sup>2</sup>) in the NHANES II survey. Analyses indicated women were more likely to be misdiagnosed obese when their body mass index indicated they were normal. Conversely, men were more likely to be misdiagnosed normal when their body mass index indicated they were obese.

## 19

Robert M. Hamm, Army Research Institute, Leavenworth, Kansas

### *Relative Importance in Prediction: Influence of Story Facts and Mood*

Subjects read descriptions of a military decision situation. One manipulation varied facts concerning enemy strength. Another manipulation varied mood, e.g., confidence expressed by characters. Subjects estimated probability of mission success and judged the relative importance of several causal factors in the situation. Surprisingly, probability of success did not vary monotonically with enemy strength. Relative importance judgments revealed a halo effect: When enemy was weak, factors leading to success were judged important; when strong, factors leading to failure were judged more important.

## 20

David A. Harrison, University of Texas at Arlington  
David Holtgrave, University of Oklahoma  
J. Carlos Rivero, New York University

### *Evidence for a "Risky Drift" in Choice Under Uncertainty*

All decisions take time. However, the effects of deliberation time on judgment and choice under uncertainty remain largely unexplored. We investigated the effect of five levels of deliberation time (10, 30, 60, 90, and 120 sec.) and 11 types of decision scenarios on judgment and risky choice, using 196 business students in a split-plot design. For some scenarios, including the Asian Flu problem and the Allais Paradox, deliberation time was related to the likelihood of choosing the riskiest alternative.

## 21

David Holtgrave, University of Oklahoma  
Elke U. Weber, University of Chicago

### *Common Dimensions of Risk Perceptions for Financial and NonFinancial Stimuli*

This within-subjects study (n=29 MBAs) compares two risk perception models across both financial and nonfinancial stimuli. The first model, inspired by Weber and Luce's Conjoint Expected Risk model, is based on five dimensions: probability of gain, loss and status quo, and expected benefit and harm. The other is the Slovic et al. psychometric model which is based on seven dimensions: voluntariness, dread, control, knowledge, catastrophic potential, novelty, and equity. The first model provided a significantly better fit.

## 22

John S. Hulland, University of Western Ontario  
Don Kleinmuntz, University of Illinois

### *The Importance of Internal and External Information in Consumer Choice*

This paper investigates the roles of both memory and externally-based information in consumers' choice processes, using a cost-benefit framework to identify factors likely to influence the relative use of internal and external information sources. Results from an experiment indicate that time pressure and the cost of acquiring external information have a significant impact on information search. In particular, these factors led to an increased relative use of internal information sources during choice.

## 23

Julie R. Irwin and Gary H. McClelland, University of Colorado

### *WTA/WTP Preference Reversals*

It has been established that people often give different values when they are asked what they would be willing to pay (WTP) for a good as opposed to when they are asked what they would be willing to accept (WTA) in compensation to relinquish the good. In this study, we found that people also give different preference orderings (i.e., rankings of goods) when they are in a WTP versus a WTA valuing situation. The difference in preference orderings also depends on whether people are valuing a gain or a loss. Explorations of the processes that underlie such preference reversals are presented.

## 24

Marilyn Jacobs Quadrel, Carnegie-Mellon University

### *Risky Business: Eliciting and Evaluating Teenagers' Risk Perceptions*

Four studies investigated how adolescents conceptualize behavioral risks and how investigators might reliably elicit their risk perceptions. Studies 1 and 2 offer and test a method for determining the features of a risk scenario that teenagers consider when formulating subjective risk judgments. Studies 3 and 4 address the use of probability scales for eliciting likelihood assessments from adolescents. These studies compare the calibration of adults' and adolescents' probability judgments regarding the accuracy of their risk knowledge.



25

Nancy L. Johnson and J. Frank Yates, University of Michigan

*Expectations, Meaning, and Covariation Judgments for Quantities*

This research examined the roles of relationship expectations and variable meaningfulness in judgments about covariation between quantities, e.g., age and weight. One experiment found that inducing expectations enhanced covariation judgment accuracy, but that variable meaningfulness, e.g., labelling a variable as "Age" rather than "X," led to similar improvement. A second experiment indicated that such effects are not mediated by memory for covariation data. In fact, expectations and meaningfulness actually diminished memorability.

26

Robin Keller and Robert Bordley, National Science Foundation

*Funding Opportunities at the National Science Foundation*

27

Benjamin Kleinmuntz and Arthur S. Elstein, University of Illinois at Chicago

*Toward Medical Decision Making Expertise*

Studies of expert-novice differences in chess, physics, and other well-structured environments suggest their generalizability to ill-structured problem tasks. Accordingly, 16 expert and novice medical intensive care physicians were presented with vignettes of 6 typical cases. They "thought aloud" while solving the diagnostic, prognostic, and treatment questions at hand. Findings indicated that their protocols yielded a high degree of interrater reliability, moderate predictive validity, and that qualitative and quantitative expert-novice differences can be identified.

28

Harvey Langholtz, Charles Gettys, and Bobbie Foote, University of Oklahoma

*The Allocation of Resources Over Time: Making Things Last Under Risk*

Resource-allocation decisions often include a time dimension. Under such decision structures people should seek the optimal way to allocate resources without exhausting reserves before the end of the time period. In earlier research we described resource-allocation behavior under conditions of certainty, risk, and uncertainty when resources are plentiful. In the current paper we provide a more detailed explanation of the structure of resource-allocation decisions and examine subjects' behavior and strategies for dealing with demanding risk situations where resources are scarce and task completion requires careful allocation.

29

Rodney Lim, Tulane University  
Peter Carnevale, University of Illinois

*Influencing Mediator Risk Perception and Behavior Through Bargainer Framing*

Research adopting prospect theory to examine the riskiness of negotiators' decisions was extended to mediation. We examined whether mediator knowledge of disputants' decision frames influences mediator perceptions and decisions in ways similar to how disputant frames have been shown to influence disputants' own decisions. A computer-based laboratory experiment found that disputants' frames did influence mediator behavior and, to a lesser extent, risk perceptions as predicted, even though the frames were not personally relevant to mediators.

30

Laurie Z. Liska and David A. Harrison, University of Texas at Arlington

*Utility and Risk Over Time: Individual Differences and Outcome Categories*

Thirty-eight undergraduates made (and replicated) 135 utility and risk judgments about realistic decision scenarios. Scenarios contained combinations of outcome category: money, laundry services, or job market information; outcome magnitude: 4x, 2x, or 1x baseline level; probability: 1.0, .5, or .25; and time of outcome receipt: now, or an hour, day, week, or month from now. Time was a significant additive and interactive component in most subjects' risk and utility judgments. Personality, ability, attitude, and demographic variables were related to individual judgment patterns.

31

Christopher McCusker and Peter Carnevale, University of Illinois

*Decision Framing and Cooperation in Social Dilemmas*

The effects of decision frame, sanctions, and others' behavior on cooperation in social dilemmas were studied using a computerized replenishing resource use paradigm. Decision frames were created using economically equivalent give-some and take-some games. Sanctions were rewards or penalties and others' behavior was cooperative or competitive. Consistent with hypotheses, results indicated that the positive frame produced greater cooperation than the negative frame, decision frames produced largest effects in the absence of sanctioning, and others' behavior reversed the size and direction of frame effects.

32

Mary E. McLaughlin and David A. Harrison, University of Texas at Arlington

*Structure of Time Judgments at the Level of Behavioral Choices*

Judgments of temporal distance are central to the perceived risk and uncertainty of behavioral choices. We examined the structure of time judgments that are involved in behavioral choices. Psychology undergraduates ( $N=111$ ) judged temporal distances between pairs of (a) daily tasks, or (b) personal events. Nonmetric MDS analyses indicated that these judgments were primarily unidimensional. However, regressions of MDS coordinates on corresponding "real" time coordinates showed perceptual stretching and squeezing of certain time periods.



### 33

Jeryl L. Mumpower and Thomas Darling, State University of New York at Albany

#### *The Effects of Problem Structure on Negotiation Process and Outcome*

For contract negotiation problems (i.e., when disputants' utility curves are opposite-signed for each issue), the structure of the negotiation problem (i.e., the shape of feasible settlement spaces and efficient frontiers) is defined by the joint distribution of negotiators' utilities across all possible settlements. Relatively minor variations in negotiators' multi-attribute utility functions may result in problems with distinctly different structures, which empirical research shows may have significant implications for both the process and outcome of negotiations.

### 34

Sharon A. Mutter, The Catholic University of America  
Rebecca M. Pliske, Marymount University  
Steven Baker, The Catholic University of America

#### *Age Differences in Covariance Judgments*

Old (60-74 years) and young (18-25 years) subjects judged the frequency of co-occurrence of Rorschach percepts (e.g., horrid beast) and personality symptoms (e.g., depressed). An illusory correlation bias (Chapman & Chapman, 1967) was observed for both old and young adults, however the magnitude of the bias was smaller for older adults. Results from a recognition memory test of the percept/symptom pairings indicate age differences in the availability of the information presented during training.

### 35

Paul W. Paese and Maryellen Kinnai, University of Missouri-St. Louis

#### *Effects of Interaction and Role on Overconfidence in Interpersonal Judgment*

Subjects were assigned to one of four conditions in a two (social interaction vs. no-interaction) by two (role vs. no-role) design, and predicted the questionnaire responses of a randomly assigned partner. Results indicated that accuracy in judgment was positively related to the use of base rate estimates, and both social interaction and role assignment led subjects to use base rate estimates less often. Because they used base rate estimates less often, subjects in the role conditions were less accurate than those in the no-role conditions, and this reduction in accuracy resulted in greater overconfidence and worse calibration.

### 36

Ramona L. Paetzold, Texas A & M University  
Steve Willborn, University of Nebraska

#### *Self-Publication in Defamation Law: Changes in Employer/Employee Decision-Making*

Under the new defamation law, employers can be found to have defamed employees when the employees self-report comments or evaluations that the employers have privately made to them. This paper examines the economic efficiency of this change (the self-publication doctrine) in defamation law, and evaluates the consequences for employee-employer decision-making and risk-taking. Two slightly different versions of the self-publication doctrine are analyzed.

### 37

Paul C. Price and J. Frank Yates, University of Michigan

#### *Covariation Assessment: The Effect of Predicting One Quantity from Another*

The present research concerned the effect of predicting one quantity from another on judgments of the covariation between those quantities. Covariation judgment accuracy was significantly improved by making such predictions. Explanations for these results—including plausible reasons for their inconsistency with findings by Well, Boyce, Morris, Shinjo, and Chumbley (1988)—are discussed. The hypothesis that subjects' covariation judgments are mediated by the accuracy of their predictions was also tested, but not supported.

### 38

Barbara A. Reilly, Clemson University

#### *Self-Insight in Judgment: A Process Tracing Approach and Verbal Reports of Mental Processes: More on Knowing and Telling*

The goal of this study was to explore how subjects recognize their unique judgment policies (via policy capturing) from the policies of their peers. The recognition ability was first reported in Reilly and Doherty (1989) and has been replicated and extended in Reilly and Doherty (in press). Twenty subjects were asked to describe in detail the process they used to choose their own policy. Each of the twenty sessions was taped and transcripts revealed valuable information on the tapes of processes involved in self-insight.

The goal of this study was to explore the difference between expressible and inexpressible self-insight (Reilly & Doherty, 1989; Reilly & Doherty, in press). Twenty subjects participated in a policy capturing study on job choice. Later, the subjects were told to write down in detail how they would identify their own policy from a collection of 20 policies. Recognition results from 20 additional subjects using these descriptions indicate that there is a component to self-insight that is inexpressible.

### 39

J. Carlos Rivero, New York University  
Robert Bontempo, Columbia University

#### *Predicting Responses to Decision Ambiguity*

In this study of multiattribute choice, we observed two prevalent, opposing behavioral responses to mounting decision task ambiguity. Some subjects engaged in greater information processing as attribute information became more ambiguous, while others responded to increased ambiguity by decreasing degree of analytic thought. Response mode was significantly predicted by cognitive style measures (e.g., NFC, LOC) as well as demographic variables. Retrospective reports suggest that response mode is related to beliefs concerning the utility of exerting cognitive effort in ambiguous environments.



## 40

Donald U. Robertson and Susan Zimny, Indiana University of Pennsylvania

### *A Connectionist Model of Bayesian Inference*

Single trial Bayesian inference was modeled with a connectionist constraint satisfaction network. Units corresponded to events (red or blue poker chips) and hypotheses (bookbag 1 or bookbag 2); connections between units reflected composition of the bookbags. Four different bookbag compositions were simulated 20 times for the event "red" and 20 times for "blue." Speed of convergence reflected Bayesian posterior probabilities in most instances. However, the connectionist model, like human judges, did not give sufficient weight to rare events.

## 41

Jaccl L. Rodgers, North Carolina State University

### *Avoiding Anchoring and Adjustment Bias: Task Familiarity and Nonmonetary Incentives*

Since the identification of decision heuristics in the early seventies, much research has been done to assess when the techniques would lead to judgment biases and thus suboptimal decisions. Recent research (e.g., Wright & Anderson, 1989) has focused on what attributes are necessary to avoid or override the judgment biases. The results reported here suggest that task familiarity, incentives, and experience may override the anchoring and adjustment heuristic. The research supports and expands the Wright and Anderson (1989) findings by using professional auditors in a routine task with implicit, nonmonetary incentives and direct rather than probability estimations. These differences address questions of ecological validity and robustness of Wright and Anderson's findings.

## 42

Lisa Scherer and Joseph Brown, University of Nebraska at Omaha  
Fred Amis and John Sunderman, Amis & Associates

### *Self-Justification and Ambiguity in Decisions to Escalate Commitment*

We investigated the claim that decisions to escalate commitment result from the irrational desire to justify past actions. Twenty-two loan offers decided whether to fund a second loan to a failing business when they or someone else made the first loan. When the investments' expected mean values (EMV) were equal in both conditions, escalation did not occur, weakening the justification hypothesis. When the EMVs were ambiguous, escalation occurred ( $F(2,21)=4.67, p<.05$ ) due to subjects' overestimation of EMVs.

## 43

Karen Siegel-Jacobs and J. Frank Yates, University of Michigan

### *Improving Judgment Accuracy Through Procedural Accountability*

Previous research has shown that accountability can improve judgment accuracy. This study sought to determine more precisely what components of accuracy are affected by this manipulation. On the basis of background information, subjects judged the likelihood that individual survey respondents considered abortion sometimes justifiable. Half the subjects anticipated having to explain their judgments post-experimentally; the others did not. Although overall accuracy was unaffected by accountability, specific components, e.g., discrimination, were enhanced.

## 44

Janet A. Sniezek and Joselito C. Lualhati, University of Illinois

### *The Effects of Reward Contingencies on Judgments of Future Performance*

Although the effects of reward contingencies on task performance are predictable, the same can not be said with regard to its influence on estimates of performance level. The current study investigated the effects of three types of reward conditions (contingent reward, noncontingent reward, and no reward) on individual judgments of future performance, judgment confidence, and judgment-performance correspondence. Naylor, Pritchard, and Ilgen's (1980) theory of behavior is used as the theoretical framework for explaining the findings.

## 45

Janet Sniezek and Michael Olson, University of Illinois

### *Within-Subject Differences in Confidence Assessments: Confronting the Subjects*

This study investigates differences between various confidence measures for a general knowledge task using a within-subjects design. Subjects were typically overconfident for assessments made at the item level, but underconfident when assessing choice quality for the same items as an aggregate. When confronted with these differences, subjects recognized that item level confidence was too high, and produced revised performance estimates that were more accurate. Aggregate level underconfidence correlated significantly with perceptions of luck. Insights into the origins of confidence assessments are discussed.

## 46

Eric R. Stone and J. Frank Yates, University of Michigan

### *Communications About Low-Probability Risks: Effects of Alternative Displays*

Methods of communicating the likelihoods of low-probability risks ideally should not influence decisions based on this information, given formal equivalence of those methods. In the present research, however, subjects' professed actions involving low-probability risks of serious injury were responsive to such display effects. Cautious behavior was especially pronounced when risks were described in terms of stick figures representing the numbers of individuals per 100,000 who might sustain injuries. Potential explanations and implications are discussed.

## 47

Ramzi Suleiman and Amnon Rapoport, University of Arizona  
David V. Budescu, Haifa University

### *Two Models for the Provision of Step-Level Public Goods*

Discussed in this paper are two models—an expected utility model and a cooperative model—for the provision of step-level public goods with continuous contribution. Experimental data show that the cooperative model accounts for the decision behaviors of a substantial minority, whereas the expected utility model accounts for the decision behaviors of fewer subjects. Results also show that when contributions are continuous, rather than all-or-none, the sum of contributions increases significantly.



48

R. Scott Tindale, Susan Sheffey, and Joseph Filkins, Loyola University

*Conjunction Errors by Individuals and Groups*

We compared individuals and groups in terms of their propensities to commit conjunction errors (Kahneman & Tversky, 1983). A number of different aspects of the conjunction problems were manipulated. Groups consistently made more conjunction errors than individuals. In addition, an analysis of the group decision process showed that individuals who made conjunction errors were more influential in the groups than were individuals who did not make such errors. Our other manipulations affected overall error rates but did not moderate the individual-group difference. Implications for individual and group decision making are discussed.

49

Carla C. van de Sande and T. Nygren, Ohio State University

*Numerical and Verbal Probability Estimates in Temporally Presented Sequences*

Subjects gave numerical and verbal probability estimates to temporally presented sequences of triangles and squares. The task was to estimate the likelihood of occurrence of a square or a triangle as the final element in each sequence. Actual probability of occurrence ranged from 10% to 90%. Results indicated that subjects used fewer distinct judgment values (both numerical and verbal) for probabilities of 10%, 50%, and 90%. This replicates the M-shaped function found by Budescu, Weinberg, and Wallsten.

50

Carol Varey and Daniel Kahneman, University of California at Berkeley

*Evaluation of Temporally-Extended Outcomes*

Subjects evaluated the overall unpleasantness of hypothetical episodes comprising varying discomfort levels. Judgments are compared to a proposed normative model for overall evaluation: integration of momentary discomfort over time. Responses qualitatively violate the model. Subjects judge ascending pain sequences as worse than descending ones. Also, they drastically underweight duration compared to intensity. This leads to an interesting paradox: Adding pain to the end of an ascending pain episode can lower the estimate of overall discomfort.

51

Joanne Vining and Kimberly G. Doty, University of Illinois

*Profiles of Emotions in Environmental Decisions*

Process-tracing data were used to generate profiles of emotions that occurred during the resolution of nine environmental problems. These profiles illustrate the patterns of emotion for two subjects. One subject tended to experience emotion early in the decision process, while reviewing the information about the problem. This subjects' emotions lessened considerably after a decision was made. The second subject showed the opposite pattern, expressing emotion during the justification process after the decision.

52

Thomas S. Wallsten and Claudia C. Gonzalez, University of North Carolina-Chapel Hill

*I Read It—It Must Be True*

True and false general knowledge statements were judged as true more often than false in two experiments. This result is surprising given previously documented additivity of subjective probabilities associated with true and false forms of a statement (Wallsten, Budescu, & Zwick, 1990). No effect of topic was observed on the excess fraction of true responses, but accuracy varied as a function of topic. A model accounts for these findings.

53

Margaret A. Waterman and Thomas E. Nygren, Ohio State University

*Conjoint Analyses of Numerical and Verbal Probabilities in a Medical Decision Task*

This study examined subjects' application of an additive conjoint composition rule to their evaluation of a hypothetical two-stage medical decision task. Based on either numerical, verbal, or a combination of numerical and verbal probability statements, subjects made choices about whether or not to have an operation. Axiomatic and nonmetric conjoint scaling analyses were used to compare the presentation mode of the probabilities (numeric vs. verbal) as well as the effects of a positive or negative outcome frame.

54

A. Zimmer, University of Regensburg

*Communicating Qualitative Information in Group Decision Making*

In a series of experiments it is examined how people communicate spontaneously in group decision tasks, how the informativeness of this communication changes over time, and how susceptible it is for systematic distortions. The results indicate that people prefer qualitative to quantitative expressions and that after intensive training the qualitative judgments of uncertainty and utility become not only consistent and reliable but also sometimes especially robust against biases.