

## PSYCHONOMIC SOCIETY MEETING

## DECISION MAKING I

Ballroom F, Saturday morning, 8:00-10:20

Chaired by Michael E. Doherty, Bowling Green State University

8:00-8:20 (362)

**Interpreting Probabilistic Phrases: Effects of Available Vocabulary and Communication Direction.** THOMAS S. WALLSTEN, SAMUEL FILLENBAUM, BRENT COHEN, & JAMES A. COX, *University of North Carolina, Chapel Hill*—Subjects rated how well vague probabilistic phrases described various probabilities. Independent variables were (1) available vocabulary, and (2) whether the subject selected a phrase to represent a situation (as though communicating to others) or constructed a situation to indicate how a phrase was understood (as though receiving a communication from others). Ratings were converted to membership functions over the [0, 1] probability interval. Both factors affected meaning as reflected in the shapes and locations of the functions.

8:25-8:45 (363)

**House Architecture Judgments: Bayesian, Dempster-Shafer, or Rule-Based Reasoning.** PETER W. FREY, *Northwestern University*—Subjects were shown 210 computer-generated line drawings of houses and asked to place each in one of seven categories. Houses were constructed by selecting a particular value for each of seven dimensions (roof slope, window shape, type of chimney, etc.). Over 5,000 variations were possible. Each of the seven categories were defined in terms of the probability of specific features. No feature was consistently present. The subjects' responses were examined in reference to Bayesian, Dempster-Shafer, and rule-based models of reasoning.

8:50-9:05 (364)

**The Conjunction Fallacy?** GEORGE WOLFORD, HOLLY TAYLOR, & ROBERT BECK, *Dartmouth College*—Tversky and Kahneman (1983) showed that subjects rate the conjunction of two events as more likely than one of the constituent events. Furthermore, training does not decrease the likelihood of the fallacy. We argue that under plausible assumptions, the conjunction of two events can be more probable. Two experiments made those underlying assumptions overt and the frequency of conjunction errors was affected. Furthermore, training mattered.

9:10-9:25 (365)

**A Motivational Theory of Risky Choice.** LOLA L. LOPES, *University of Wisconsin*—A theory of risky choice is presented in which two factors are hypothesized to operate. The first is a dispositional factor that reflects whether an individual is primarily motivated by security (risk aversion) or by potential (risk seeking). The second factor is a situational factor that reflects current needs and opportunities. Conflict between these factors can produce complex patterns of preference. Choice data and protocol data will be provided to support the theory.

9:30-9:40 (366)

**Confidence in Judgments Based on Incomplete Information.** IRWIN P. LEVIN, *The University of Iowa*, & RICHARD D. JOHNSON, *University of Alberta*—Subjects rated their likelihood of taking each of a series of gambles based on both probability and payoff information or only one of these sources of information. They also rated their confidence in each likelihood judgment. Confidence ratings were only slightly lower for gambles with incomplete information than for gambles with complete information. For subjects who explicitly estimated the values of missing information, differences in confidence as a function of amount of information presented disappeared.

9:45-10:00 (367)

**The Limits of Overconfidence in Estimation.** RICHARD A. BLOCK & DAVID R. HARPER, *Montana State University*—People are usually overconfident in their estimates of quantities. When they are asked to produce a 50% confidence interval, subjects include the true value on fewer than half of the items. Awareness of this overconfidence effect may not eliminate it. However, overconfidence may be reduced in cases in which the subject is somewhat familiar with the material. We discuss the implications of our findings for judgment and decision processes.

10:05-10:15 (368)

**Expertise and Accuracy in Probabilistic Forecasting of Stock Prices.** J. FRANK YATES, LINDA S. MCDANIEL, & ERIC S. BROWN, *University of Michigan*—It was predicted and confirmed that undergraduate and graduate finance students make probabilistic forecasts of stock prices in characteristically different ways. These differences, coupled with major theories about stock price determinants, led to the hypothesis, also confirmed, that undergraduates' forecasts would be more accurate than graduate students' predictions. These results offer a possible explanation for previous indications of an inverse relationship between (presumed) expertise and accuracy in predicting stock price movements.

## DECISION MAKING II

Ballroom F, Saturday morning, 10:30-12:40

Chaired by Lola L. Lopes, University of Wisconsin

10:30-10:50 (369)

**Attempts to Generate Random Numbers: A Rule-Based Model.** F. MICHAEL RABINOWITZ, *Memorial University of Newfoundland*, WILLIAM P. DUNLAP, *Tulane University*, MALCOLM J. GRANT, *Memorial University of Newfoundland*, & JOSEPH C. CAMPIONE, *University of Illinois*—A rule-based mathematical model is proposed to account for the attempts of children and adults to generate random strings of numbers. The mathematical model fit the data of individual subjects asked to generate random strings in two experiments, but failed to fit the free-association data collected in Experiment 2. Across the two experiments, it appears that subjective conceptions of randomness rather than memory or inattention to the task are of primary importance in random generation.

10:55-11:05 (370)

**Relevant Information Is Worse than Irrelevant Information.** STEPHEN E. EDGELL, *University of Louisville*, & N. JOHN CASTELLAN, JR., *Indiana University*—It is well known in decision making that the presence of (an) irrelevant information dimension(s) lessens the decision maker's utilization of the relevant dimension. Using the nonmetric multiple-cue probability learning paradigm, several experiments showed that if the additional dimension(s) was relevant rather than irrelevant, the utilization of the other relevant dimension is even lower. This finding is in accord with the Castellan-Edgell model.

11:10-11:25 (371)

**Intuitive  $\alpha$ : Covariation Relationships and Causal Judgment.** HARRIET SHAKLEE, *Eugene Research Institute*—Past theorists have suggested that people identify event covariates as causes of events. However, when interevent relationships are not strong, people may recognize a covariation relationship but find the relationship to be too weak to make a causal attribution. The level of covariation required for a causal attribution may be taken as an index of "intuitive  $\alpha$ ." The present study compares subjects' causal and covariation judgments about interevent relationships varying in strength.

11:30-11:45 (372)

**Using Statistical Risk Information to Assess Oral Contraceptive Safety.** DIANE F. HALPERN, *California State University, San Bernardino*, SONIA BLACKMAN, *California Polytechnic University, Pomona*, & BILLIE SALZMAN—The effect of variations in the presentation of oral contraceptive risk information on perceived safety was investigated. Safety judgments varied systematically across six different types of information formats, which included framing (focusing on positive or negative information), use of base rates, and mathematically equivalent methods of providing numerical information. It is concluded that consumer decisions about the safety of low-probability events can be influenced by the way in which information is presented.

11:50-12:10 (373)

**Theory of Difference Judgment and Comparative Response Time.** MICHAEL H. BIRNBAUM, *California State University, Fullerton*, & JR-WEN JIU, *University of Illinois, Urbana-Champaign*—In two experiments, subjects performed three tasks: First, they learned associations between names and adjectives. Second, they judged differences in likableness between pairs of names. Third, they pressed one of two keys to indicate which of each pair was more (or less) likable. Response times showed the traditional distance effect, end effect, and semantic congruity effect. A simple model describes these three phenomena and difference ratings using a single scale of subjective magnitude.

12:15-12:35 (374)

**The Influence of Error in Data on Predictions and Inferences.** MICHAEL E. DOHERTY, RAYMOND O'CONNOR, & RYAN D. TWENEY, *Bowling Green State University*—We report a series of studies in which it is made obvious to subjects whether data error degrades those data on which judgments are based, or degrades the feedback about the accuracy of those judgments. In four MCPL investigations, specifying whether the error is in the cues or the criteria does not interestingly affect performance. In an inference paradigm, the type of cue error has a major impact.



Sunday, November 16

J/DM SESSIONS, Burgundy C&D Rooms

8:00-8:30 Complimentary Continental Breakfast

8:30-10:00 Featured Talk: "The resolution of conflict and the  
justification of decisions"

Amos Tversky, Stanford University

Dick Thaler, Cornell University, Introduction

Jay Russo, Cornell University, Discussant

Greg Fischer, Carnegie-Mellon University, Discussant

10:00-10:15 Coffee

10:15-12:00 Symposium "Dynamic Decision Making"

Don Kleinmuntz, M.I.T., Moderator

Berndt Brehmer, Uppsala University

"Feedback in Dynamic Decision Making"

John Stermann, M.I.T.

"Experimental Macroeconomics: Dynamics of Investment  
Behavior with Feedback"

Don Kleinmuntz, M.I.T. and James Thomas, U. of Texas

"Strategy Selection by Experts and Novices in Dynamic  
Decision Making"

Gary McClelland and William Schulze, U. Colorado, and  
Don Coursey, Washington U.

"Effects of Repeated Experience with Small Risks"

Robin Hogarth, University of Chicago, Discussant

12:00-1:15 Lunch

1:15-2:45 Symposium "Risk Judgment"

Timothy Earle, Battelle Institute, Moderator

Ortwin Renn, Clark University

Charles Vlek, Institute for Experimental Psychology  
The Netherlands

Timothy Earle, Battelle Institute

Paul Slovic, Decision Research, Discussant

2:45 Adjourn

Saturday, November 15

PSYCHONOMICS SESSIONS, Ballroom F

8:00-10:20 AM Decision Making I

10:30-12:40 Decision Making II

For details, see attachment to program

J/DM SESSIONS, Olive/Burgundy A&B Rooms

1:00-1:15 Opening Remarks Don Kleinmuntz, M.I.T.

1:15-2:45 Featured Talk: "Stalking Elusive Preferences"

Paul Slovic, Decision Research, Inc.

Daniel Kahneman, U. California, Berkeley, Introduction

John W. Payne, Duke University, Discussant

Bill Goldstein, University of Chicago, Discussant

2:45-3:00 Coffee

3:00-5:00 Symposium "The representation and role of ambiguity in judgment and individual decision making"

David Budescu, University of North Carolina, Moderator

Robin Hogarth and Hilly Einhorn, University of Chicago

Shawn Curley, University of Minnesota

and Frank Yates, University of Michigan

Tom Wallsten, David Budescu, University of North Carolina

and Rami Zwick, Carnegie-Mellon University

Lola Lopes, University of Wisconsin, Discussant

Gregg Oden, University of Wisconsin, Discussant

5:00-6:00 Business Meeting: James Shanteau, Kansas State University

6:00-7:00 Social Hour, Kenilworth Room

JUDGMENT/DECISION MAKING SOCIETY  
1985 MEETING  
HYATT REGENCY NEW ORLEANS  
NOVEMBER 14-15, 1986

Friday, November 14

RESEARCH CONVERSATION HOURS  
HOSPITALITY SUITE, HYATT REGENCY

- 8:00-8:30 J/DM Outside Academia  
PM Avram Horowitz, General Motors Research Center  
Helen Lewis, U.S. Army Research Institute  
Jeffrey Schwartz, Grumman-CTEC Inc.
- 8:30-9:15 New Directions in Theory  
PM Michael Berbaum, Brandeis U.  
R. James Holzworth, U. Connecticut  
Ann McGill, New York U.  
Tom Wallsten, U. North Carolina  
Elke Weber, U. Illinois
- 9:15-10:00 What's Happening Across the Atlantic?  
PM David Budescu, U. Haifa  
Hans-Ueli Fisch, U. Bern  
Amnon Rapoport, U. North Carolina  
Ortwin Renn, Clark U.
- 10-10:30 New Directions in Application  
PM Farrokh Alemi, Tulane U. Medical Center  
John S. Carroll, Sloan School - M.I.T.  
Jeff Casey, M.I.T.  
Jeryl Mumpower, S.U.N.Y.-Albany
- 10:30-11:15 Measurement  
PM L. Robin Keller, U. California - Irvine  
Orfelio Leon, U. Wisconsin  
Michael Ravitch, Northwestern U.  
William Waller, U. Arizona  
Douglas Wedell
- 11:15-12:00 Is Reductionism Increasing?  
PM Ed Hirt, Pennsylvania State U.  
Barry Lewis, U. Pittsburgh  
Alan Mayper, Texas A&M U.  
Sandra Schneider, U. Wisconsin  
Gerrit Wolf, S.U.N.Y.-Stony Brook