INTERDISCIPLINARY JUDGMENT AND DECISION MAKING MINI-CONFERENCE

November 18, 2009, at Clarkson University
Call for Conference Registration

Students and faculty from Clarkson University as well as speakers from four international research institutions (Max Planck Institute Berlin, Stanford University, University of California Los Angeles and the University of Basel) will meet and present their research on various topics of judgment and decision making. These talks include, but are not limited to: Experimental studies of judgment and decision-making scenarios, experimental economic approaches to individual and group behavior, the development of decision-making capacities, decision-making models in animal behavior, the effects of culture on decision-making strategies, the discussion of relevant normative theories and decision-making applications to medicine, consumer behavior, law, and business.

The attending faculty will come from a wide area of disciplines that share an interest in judgment and decision making (e.g., psychology, economics, biology, anthropology, and computer science). In addition to student and faculty research presentations, there will be time for meeting people from different academic areas in their study of decision-making capacities.

The conference is free for students and faculty from all nearby academic institutions. Registration is required by e-mailing Andreas Wilke at awilke@clarkson.edu by November 2.

Schedule of Events

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 – 9:10 a.m.</td>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>9:10 – 9:40 a.m.</td>
<td>Benjamin Scheibehenne</td>
<td>Psychological Perspectives on Food Choice: To What Degree are Food Preferences Inherited? A Twin Study</td>
</tr>
<tr>
<td>9:40 – 10:10 a.m.</td>
<td>Jutta Mata</td>
<td>How can we Lead Healthier, Happier Lives? Decision Making and Other Determinants of Health Behavior Change</td>
</tr>
<tr>
<td>10:10 – 10:40 a.m.</td>
<td>Ruiz Mata</td>
<td>The Life Span Development of Judgment and Decision-making Abilities</td>
</tr>
<tr>
<td>10:40 – 11 a.m.</td>
<td></td>
<td>Coffee break</td>
</tr>
<tr>
<td>11 – 11:30 a.m.</td>
<td>Diego Nocetti</td>
<td>The Biasing Effects of Memory Distortions on the Process of Legal Decision-making</td>
</tr>
<tr>
<td>11:30 a.m. – 12 p.m.</td>
<td>Wolfgang Gaissmaier</td>
<td>Public (Mis-)Understanding of Risk</td>
</tr>
<tr>
<td>12 – 12:30 p.m.</td>
<td>Luciana Echazu</td>
<td>Corruption and the Balance of Gender Power</td>
</tr>
<tr>
<td>12:30 – 1:30 p.m.</td>
<td>Lunch break</td>
<td></td>
</tr>
<tr>
<td>1:30 – 2 p.m.</td>
<td>Jeremy Bongio</td>
<td>Empirical Comparison of Exact vs. Approximate Algorithms for Finding Correlated Equilibria in Multiplayer Games</td>
</tr>
<tr>
<td>2 – 2:30 p.m.</td>
<td>Karthik Panchanathan</td>
<td>The Bystander Effect in a Multi-Player Dictator Game</td>
</tr>
<tr>
<td>2:30 – 2:35 p.m.</td>
<td>Short break</td>
<td></td>
</tr>
<tr>
<td>2:35 – 3:05 p.m.</td>
<td>Bettina von Helversen</td>
<td>Models of Quantitative Judgment From Multiple Cues</td>
</tr>
<tr>
<td>3:05 – 3:35 p.m.</td>
<td>Hansjörg Neth</td>
<td>Stopping Rules in Memory Foraging</td>
</tr>
<tr>
<td>3:35 – 3:55 p.m.</td>
<td>Coffee break</td>
<td></td>
</tr>
<tr>
<td>3:55 – 4:25 p.m.</td>
<td>Tom Langen</td>
<td>Avian Models of Search and Choice Under Uncertainty</td>
</tr>
<tr>
<td>4:25 – 4:55 p.m.</td>
<td>Karthik Panchanathan</td>
<td>Learning to Live: A Model Balancing Evolutionary and Developmental Adaptation</td>
</tr>
<tr>
<td>4:55 – 5:00 p.m.</td>
<td>Short break</td>
<td></td>
</tr>
<tr>
<td>5 – 5:30 p.m.</td>
<td>Stephen Le</td>
<td>Are Patient People Really More Cooperative? Contrasting Results From Experiments in Northern-Central and Southern Vietnam</td>
</tr>
<tr>
<td>5:30 – 6 p.m.</td>
<td>Andreas Wilke</td>
<td>Cognitive Adaptations for Resource Search: Explaining Hot Hands and Fallacious Gamblers</td>
</tr>
<tr>
<td>7 p.m.</td>
<td>Dinner (place TBA)</td>
<td></td>
</tr>
</tbody>
</table>

Effort to manipulate or persuade people. With examples focusing on the health domain, it will be shown how framing of information that is sometimes an unintentional result of lack of understanding, but can also be an intentional be looked for in our mind and its biases, but rather in the environment. Statistical illiteracy is created by nontransparent among laypeople and experts, with sometimes severe consequences. The causes of statistical illiteracy should not only and deal with them in an informed way. The general lack of training to deal with risks in today’s technological society constantly at the mercy of this uncertainty. Even in the current world, however, people are uneasy about uncertainty, nor-monotonic in the proportion of female participation. This paper seeks to explain the negative relationship between female participation in the government and corruption found in empirical research. We propose that even if there are no innate gender differences towards moral values, the costs of corrupt behavior may still differ across genders and are related to the proportion of female participation in government agencies. Hence, females behave more honestly than males do, not because they are naturally prone to it but because they cannot afford to be corrupt if they are a minority. In that sense, the total density of corruption is non-monotonic in the proportion of female participation. Echazu, L. & Gubrudott, Corruption and the balance of gender power. Review of Law and Economics.

Wolfgang Gaissmaier
Harding Center for Risk Literacy, Max Planck Institute for Human Development

Public (Mis-)Understanding of Risk

“In this world, nothing is certain except death and taxes,” Benjamin Franklin already noted in 1789, on the eve of the French Revolution. This ironic statement nicely illustrates that everything in life is laden with risk, and that we are constantly at the mercy of this uncertainty. Even in the current world, however, people are uneasy about uncertainty, and many anxiously strive towards a certainty that does not exist. Yet society needs people who learn to cope with risks and deal with them in an informed way. The general lack of training to deal with risks in today’s technological society has become a problem: Statistical illiteracy, the inability to understand the meaning of numbers, is widespread both among laypeople and experts, with sometimes severe consequences. The causes of statistical illiteracy should not only be looked for in our mind and its biases, but rather in the environment. Statistical illiteracy is created by nontransparent framing of information that is sometimes an unintentional result of lack of understanding, but can also be an intentional effort to manipulate or persuade people. With examples focusing on the health domain, it will be shown how transparency could help solving this problem, but also how conflicts of interest often prevent it from being solved.


Bettina von Helversen
Department of Economic Psychology, University of Basel

Models of Quantitative Judgment From Multiple Cues

How do people make quantitative estimations, such as estimating a car’s selling price? Often people rely on cues, information that is probabilistically related to the quantity being estimated. For instance, to estimate the selling price of a car they could use information, such as the car’s manufacturer, age, mileage, or general condition. Traditionally, linear regression type models have been employed to capture the estimation process which assume that people weight and integrate all information available to estimate a criterion. However, these models have been criticized as unrealistic models of the cognitive process underlying quantitative estimations. Alternatively, similarity-based models such as exemplar models (Justine, Karlsson & Olsson, 2008) and heuristics models such as the mapping model (von Helversen and Rieskamp, 2008) have been proposed. In this paper, we compare these models against each other and investigate the task structures that determine which model can describe the judgment process best.


Tom Lange
Departments of Biology and Psychology, Clarkson University

Avian Models of Search and Choice Under Uncertainty

Despite decades of theoretical work on search and choice under uncertainty, typified by ‘secretary problem’ models, we still know little about the rules by which humans and other animals evaluate and select one option among many. In this talk, I will review how behavioral ecologists and cognitive ethologists have begun to rigorously evaluate how birds and other animals ‘solve’ the secretary problem, with a focus on how birds choose mates and choose nuts to store.


Stephen Le
Center for Behavior, Evolution and Culture, UCLA Anthropology

Are Patient People Really More Cooperative? Contrasting Results From Experiments in Northern-Central and Southern Vietnam

Four studies carried out among undergraduates in the USA (Harris & Madden, 2003; Yi et al., 2005, 2007; Curry et al., 2008) found a positive relationship between behavioral measures of patience and cooperativeness, but two studies among non-Western populations (Tanaka et al., 2007, Hill & Gurven, 2004) found no relationship. The present study was conducted among 191 undergraduates in northern-central and southern Vietnam using similar methodology. Northern-central and southern Vietnam have had contrasting historical and geographical circumstances. Northern-central Vietnam has been heavily influenced by China, was relatively close to the imperial capitals of Hanoi and Hue, experienced a much longer period of communism than southern Vietnam, and suffers from harsher weather patterns and a lower availability of arable land. Empirical results on the relationship between patience and cooperation in northern-central and southern Vietnam show striking differences which can be proximally explained by contrasts in rates of return on capital, and attitudes toward time and money, and ultimately by divergent historical and geographical circumstances in these two regions.

How can we lead healthier, happier lives? Decision Making and Other Determinants of Health Behavior Change

Poor health behavior, including diet and physical activity, and its consequences such as obesity are one of the major causes of death in the United States today. A healthy diet and regular exercise are not only important for good physical health, but also for psychological health (e.g., by reducing the risk for depression). Today, the lifetime prevalence of depression, one of the most debilitating diseases, is 16%–22% in the U.S., accounting for over 20% of economic costs for all mental illness. In this presentation, I will talk about factors that (a) facilitate health behavior change, particularly exercise and diet, (b) help maintain these changes over the long term, and (c) influence relations between such health behavior (change) and psychological health. This talk will focus on how the structure of the physical and cognitive environment can facilitate healthy food choice based on two studies. One experiment on food label design shows how informational content and the context in which labels are assessed influences the evaluation of food products. Specifically, conjoint assessment of labels can lead to contrary product rankings compared to separate evaluations. A second study demonstrates the role of cognitive complexity of diet rules for diet adherence. The impact of excessive cognitive demands on diet adherence and dieters’ perception of diet rule complexity were investigated from an environmental perspective, by analyzing diet rules in books, and from the cognitive perspective of dieters in a longitudinal online questionnaire. Perceived diet complexity was the strongest predictor of the risk that participants give up their new diet plan for the diet regime with complex rules, but did not predict adherence in a simple diet regimen. Environment and cognitive influences are important aspects for understanding health behavior and its influences on physiological and psychological health. However, the effects of a number of other factors should be considered as well, such as individual motivation, behavior, and genetics. I will give an introduction to the importance of these factors by presenting studies on the association between exercise and affect in both healthy controls and individuals with depression. Also, I will show how a specific allele, the met-allele of the Brain-Derived Neurotrophic Factor Gene, predicts who will profit more from exercise, that is, have fewer depressive symptoms.


The Life Span Development of Judgment and Decision-making Abilities

The success of how we think and make decisions depends crucially on our cognitive resources as well as the demands of the task at hand. From childhood and adolescence to adulthood and old age, the cognitive changes experienced throughout the life span as well as the characteristics of the problems faced have important implications for how we think, judge, and decide. In this talk, I will argue that judgment and decision-making research must consider a developmental perspective when attempting to understand how cognitive resources and task demands interact to determine successful inferences. As illustration, I will show how children, adults, and older adults successfully adapt to the statistical structure of decision environments in categorization, multiple-cue judgment, and decision tasks by selecting strategies that are well fit to both their cognitive resources and the task demands.


The Bystander Effect in a Multi-Player Dictator Game

The Bystander Effect occurs when the likelihood that someone helps a victim decreases as the number of potential helpers increases. Most studies on this topic assume that the decision to help is dichotomous (e.g., to call the police or not) and that the victim’s welfare saturates with one dose of help (e.g., one phone call is sufficient). Here, we modify the Dictator Game from behavioral economics, used to study pro-social behavior, in order to extend the Bystander...
Effect to cases of continuous help. In Study One, the number of dictators simultaneously transferring money to a single recipient is varied. We find a strong Bystander Effect: With one dictator, recipients earn nearly twice as much as with two or three dictators. In Study Two, an online replication eliciting hypothetical transfers, no such Bystander Effect is observed. In Study Three, in order to evaluate whether this observed Bystander Effect is due to a diffusion of responsibility or uncertainty over other dictators' transfers, we implement a "strategy method" version of Study One: The first dictator makes a transfer proposal to the recipient; simultaneously, the second dictator makes a series of transfer proposals, each corresponding to a possible transfer proposal from the first dictator. The results support a diffusion of responsibility interpretation: Second dictators make lower transfer proposals, which are not contingent on first dictator transfers. In Study Four, another online replication eliciting hypothetical behavior, second dictators transfer the most when first dictators transfer very little or very much, and match first dictators for intermediate transfers.


Benjamin Scheibehenne
Department of Economic Psychology, University of Basel

Psychological Perspectives on Food Choice: To What Degree are Food Preferences Inherited? A Twin Study.

Based on a sample of 5,000 monzygotic and dizygotic twins in the U.S., we test the heritability of food preferences. Specifically, we looked at the variety of people’s diets and the amount of food that they consumed. The variance of these measures that is due to genetic influences was estimated by comparing monzygotic twins (who share similar genes) with dizygotic twins with the same gender, who share about 50 percent of their genes and grow up in similar environments.


Andreas Wilke
Department of Psychology, Clarkson University

Cognitive Adaptations for Resource Search: Explaining Hot Hands and Fallacious Gamblers

The hot hand phenomenon refers to subjects' expectation of streaks in sequences of events whose probabilities are, in fact, independent. We conjectured that hot hand reflects an evolved adaptation to resources that are clumped, and used an experimental computer task to explore when American undergraduates and Shuar hunter-horticulturalists expected clumps in sequences of foraged fruits, coin tosses, and other resources. Overall, subjects tended to expect clumps in sequences that were, in fact, random, with interesting population differences. Shuar have substantial foraging experience but little experience with coin tosses, while Americans are the opposite. Americans showed a clumped expectation for fruits but less for coins, whereas Shuar showed a clumped expectation for both. We suggest that this reflects a default expectation of clumps that is still present for Americans in a foraging context, but is reduced (though not eliminated) by experience with genuinely independent random phenomena like coin tosses.


Contact Information:
Andreas Wilke
Clarkson University
Evolution and Cognition Lab
Department of Psychology
8 Clarkson Ave, Box 5805
Potsdam, NY 13699
315-268-7023
awilke@clarkson.edu