

2023

# JDM

Winter  
Symposium



# JUDGMENT AND DECISION MAKING

WINTER SYMPOSIUM

2023

Hosted by: Arul Mishra, Darron Billeter, Himanshu Mishra

*The Symposium is generously supported by the Marriott School of Business, Brigham Young University*

# AGENDA

Thursday, January 12, 2023

6:30pm – 9:00pm | Welcome Reception | The Cliff Lodge, Wasatch B Room

Friday, January 13, 2023

7:00am | Breakfast | The Cliff Lodge, Superior Room

7:30am – 9:15am | Presentations | The Cliff Lodge, Superior Room

- The Motivational Dynamics Of Success And Failure - Gerald Häubl\* & Sarah Wei
- An Approach To Testing Reference Points - Alex Rees-Jones\* and Ao Wang
- The Impact Of Account Partitioning On Personal Budget Allocations - Colin West, Gülden Ülkümen\*, Patrycja Arundel, and Craig R. Fox

4:00pm | Afternoon Snacks | The Cliff Lodge, Superior Room

4:30pm – 6:50pm | Presentations | The Cliff Lodge, Superior Room

- The role of attention in probability weighting - Craig R. Fox\*
- Excessive Certainty Is A Property Of Finite, Fallible Thinking Systems - Don Moore\*
- Efficient Coding As A Source Of Value And Probability Distortion - Cary Frydman\*
- Person vs. Purchase Comparison: How Material and Experiential Purchases Evoke Consumption Emulation in Others - Joowon Park, Sachin Banker, Tamara Masters\*, Grace Yu-Buck

7:30pm | Dinner | The Cliff Lodge, Wasatch B Room

# AGENDA CONT.

Saturday, January 14, 2023

7:00am | Breakfast | The Cliff Lodge, Superior Room

7:30am - 9:15am | Presentations | The Cliff Lodge, Superior Room

- Might The Introduction Of Video Technology Amplify Inequalities In Accessing Healthcare Resources? An Empirical Analysis Of Mental Health Therapies - Jian Ni, Jiang Qian & Meng Zhu\*
- Can Environmental Messaging Reduce Product Returns? - Aaron R. Brough\*, Ryan Hamilton
- Differences in Ability Can Masquerade as Differences in Overconfidence - Stephen Spiller\*

4:00pm | Afternoon Snacks | The Cliff Lodge, Superior Room

4:30pm - 6:50pm | Presentations | The Cliff Lodge, Superior Room

- Price Contrast in The Wild - On Amir\*
- Responses To Gender-Based Price Variation: Differences or Discrimination? - Andrea Morales\*
- Evaluations Are Inherently Comparative, But Compared to What? - Clayton R. Critcher\*, Minah Jung, Leif D. Nelson
- How Product Categories Shape Self-Attributions - Aner Sela\*

7:30pm | Dinner | The Cliff Lodge, Wasatch B Room

\*: Presenting Author

# LOCATIONS

## Wasatch B – Lobby Floor



## Superior – Lobby Floor



# ABSTRACTS



**GERALD HÄUBL**



**UNIVERSITY OF  
ALBERTA**

## The Motivational Dynamics Of Success And Failure



How does experiencing success versus failure at an activity impact the motivation to excel at that activity when one engages in it again? We propose that the answer to this question depends on the extent to which people focus on achieving the desirable outcome (i.e., outcome orientation) versus the process of engaging in the activity (i.e., process orientation). Under outcome orientation, people tend to encode the experienced success or failure primarily as a signal of activity difficulty. By contrast, process orientation renders people more inclined to encode the experienced success or failure as a signal of their competence at performing the activity. Thus, we hypothesize that failure is more motivating than success when people are outcome oriented, as it signals that the activity is difficult and requires a greater amount of effort, and that success is more motivating than failure when people are process oriented, as it signals that one is good at performing the activity and engaging in it is appealing. Evidence from four experiments provides support for this theorizing. The findings advance our understanding of the motivational dynamics of success and failure over time.

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**ALEX REES-JONES**



**UNIVERSITY OF  
PENNSYLVANIA**

## An Approach To Testing Reference Points



Reference-dependent models are central to behavioral economics, and yet their application is often hindered by our incomplete understanding of reference points. We present a new approach to testing theories of reference points. Our approach builds from the prediction that, when individuals choose between pairs of gambles, an exogenous marginal increase in all payoffs has the same effect on choice probabilities as an exogenous marginal decrease in the referent. We present a novel experimental design that facilitates testing this prediction with modifications to existing, powerful nonparametric econometric techniques. We demonstrate the application of our approach in an online experiment that tests the role of salience in setting reference points. In our setting, we find that goals may serve as reference points only if they are salient, and we reject that group averages serve as reference points even when they are salient.

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**GÜLDEN ÜLKÜMEN**



**UNIVERSITY  
OF SOUTHERN  
CALIFORNIA**

## **The Impact Of Account Partitioning On Personal Budget Allocations**



Across eight preregistered studies, we show that the way in which budgeting preferences are elicited can have large effects on amounts allocated to saving vs. spending. First, we show that financial allocation decisions are biased in the direction of equal allocation to each account into which a budget is partitioned, so that savings increases as the number of accounts earmarked for saving (versus spending) goes up. We observe these effects above and beyond the impact of specifying multiple specific saving goals. Additionally, we identify specific features of choice architecture that moderate the extent of this bias. We show that partitioning has maximal effects on saving rates when the elicitation procedure best resembles an allocation of total resources across all possible spending and saving options. In particular, saving is maximized when: (1) an explicitly articulated fixed sum of money is allocated (vs. leaving that amount implicit); (2) money is allocated to all accounts simultaneously (vs. sequentially); (3) accounts comprise an exhaustive set of spending and saving options (vs. leaving residual amounts for spending implicit). We conclude by discussing implications for personal finance and other resource allocation decisions.

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**CRAIG R. FOX**



**UCLA**

## The Role of Attention in Probability Weighting



One cornerstone of prospect theory is the tendency for decision makers to overweight low probability events, underweight high probability events, and exhibit under-sensitivity to differences in intermediate probabilities. In contrast, research on the so-called description-experience gap appears to suggest that low probability events are underweighted (and high probability events overweighted) when outcome frequencies are observed through sequential sampling rather than explicitly described. In our research we argue that decisions from both description and experience are consistent with a common process in which probability weighting is driven by relative attention to outcomes. Thus, when a chance prospect is explicitly described (e.g., a 10% chance to win \$100, or else win nothing), this leads to a bias toward equal attention to the possible outcomes (\$0 or \$100) with insufficient adjustment of attention to the outcomes relative to the extremity of probabilities. Meanwhile, when outcomes are sampled from a distribution without replacement (e.g., observing nine \$0 outcomes and one \$100 in a random order), attention is forced to outcomes in proportion to their probability of occurrence, leading to more linear (accurate) weighting. In a series of studies I'll show that the putative description-experience gap is consistent with a prospect theory model in which probability weighting is more linear in experience-based than description-based formats. Second, I'll present results of a new study (data collection in progress) in which colleagues and I use eye tracking to explore the relationship between description format, allocation of visual attention, and probability weighting. Finally, I'll show that experience-based presentation of probabilistic information can lead observers to respond to policy proposals in ways that are more sensitive to varying probability levels than description-based presentation of the same information.

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**DON MOORE**



**UC BERKELEY**

## Excessive Certainty Is A Property Of Finite, Fallible Thinking Systems



Overprecision is the excessive certainty in the accuracy of one's judgment. I propose a theory to explain it. The theory holds that overprecision in judgment results from neglect of all the ways in which one could be wrong. Overprecision is the result of being wrong and not knowing it. This explanation can account for why question formats have such a dramatic influence on the degree of overprecision people report. It also explains the ubiquity of overprecision not only among people but also among artificially intelligent agents.

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**CARY FRYDMAN**



**UNIVERSITY  
OF SOUTHERN  
CALIFORNIA**

## Efficient Coding As A Source Of Value And Probability Distortion



We experimentally test the hypothesis that efficient coding can explain biases in the perception of value and probability. We first demonstrate that perception of monetary amounts is systematically influenced by prior expectations. We then show that perception of probability follows a similar principle: human subjects are better able to discriminate between nearby probabilities that are more likely to occur under a natural prior distribution. The imprecision with which subjects perceive probabilities feeds into valuation biases. We produce additional data which suggests that the probability weighting function is stochastic and fluctuates according to statistics of the local environment

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**TAMARA MASTERS**



**UNIVERSITY OF UTAH**

## Person vs. Purchase Comparison: How Material and Experiential Purchases Evoke Consumption Emulation in Others



Consumers feel envious of others more frequently than ever as they are constantly exposed to the purchases of others through social media. The extant literature is divided on whether consumers are more likely to envy the experiential purchases or material purchases of others. The current research identifies a moderator delineating when experiential vs. material purchases elicit greater consumer envy. Specifically, we show that in a natural state when consumers compare the well-being of the purchaser to their own well-being, experiential purchases elicit greater envy than material purchases. In contrast, when consumers are instead prompted to compare the purchase to their own comparable purchase, material purchases elicit greater envy than experiential purchases. We further demonstrate the implications of understanding the decision making that develops from consumption-related.

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**MENG ZHU**



**JOHNS HOPKINS  
UNIVERSITY**

## **AI Adoption and Access to Healthcare Resources: An Empirical Analysis of Mental Health Therapies (with J. Ni & J. Qian)**



The distribution and allocation of healthcare resources are important indicators to address health inequalities. Telemedicine through virtual visits has become prominent since the pandemic. As an alternative to in-person office visits, virtual visits allow patients from regions with scarce health resources to access high-quality care. The convenience of teletherapy compared to office visits certainly attracts more people to choose online services. This is especially true for non-emergency care like mental health therapies, where the difference in service quality between the online and offline offerings is arguably not substantial. However, patients might face considerable uncertainty when selecting among therapists through traditional webpages that typically contain only texts and profile pictures. Many service platforms have started to offer AI tools to providers for free. While these AI tools can help promote therapists to patients, they have to be enabled by providers manually. The adoption of AI on one hand could facilitate preference matching, further enabling patients to choose the proper therapists. Yet, on the other hand, the more efficient matching might generate increased demand, which could potentially raise the price of therapy, subsequently exacerbating inequalities in access to care. In our study, using a dataset from one of the largest mental health teletherapy platforms in the U.S., we examined over 140,000 therapists and their copay information. We find that therapists' decision to adopt AI leads to a premium for the price of offline, in-person therapy. This effect is amplified in low-income regions, which further jeopardizes inequalities in access to care. Our results carry policy implications for the nuanced interplay between technology adoption and healthcare inequalities.

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**AARON R. BROUGH**



**UTAH STATE  
UNIVERSITY**

## Can Environmental Messaging Reduce Product Returns?



The financial cost of product returns poses a significant challenge to retailers; a report by the U.S. National Retail Federation estimates that in 2020 alone, \$428 billion in merchandise was returned to retailers. Another critical, but often overlooked, cost of product returns is their negative impact on the environment. Product returns typically involve additional energy and resource consumption as returned products are transported and repackaged, and many returned products end up in a landfill. In this research, we propose that when making decisions about product returns, consumers often neglect the associated environmental costs. While most consumers do not expect that being reminded of such costs would affect their decisions, we show that eco-messaging can reduce return rates. We further show that the effect of eco-messaging on product return rates is a function of anticipated guilt, and is moderated by political ideology. Importantly, when eco-messaging is presented before an online checkout (as opposed to after the products are shipped), it reduces product return rates via a reduction in orders, but does not affect the number of items consumers ultimately keep. These findings can help retailers improve profit margins and have important implications for fighting climate change. We also make a theoretical contribution by challenging traditional definitions of what constitutes a sale and emphasizing product returns as a frequently neglected stage of the customer journey.

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**STEPHEN SPILLER**



**UCLA**

## Differences in Ability Can Masquerade as Differences in Overconfidence



Overly positive assessments of one's own skill have been claimed to be associated with various other measures, including heightened status, narcissism, and reduced anxiety. One frequently-used approach to measuring individual differences in overly positive assessments is to (a) regress self-evaluations on objective measures and use the residual as a predictive measure, or (b) take the difference between self-evaluations and objective measures and use the difference as a predictive measure. Through analysis and simulations, I show that both approaches (residuals and difference scores) are confounded with differences in skill for unbiased individuals. I test for evidence of this in previously-collected open data. Despite claims to the contrary, proposed relationships between overestimation and other constructs may represent relationships with skill, not biased self-evaluations.

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**ON AMIR**



**UC SAN DIEGO**

## Price Contrast In The Wild



What should be the effect of an extremely high price on purchases from an assortment? Theories of assimilation and contrast draw conflicting predictions. Using large field data from an online marketplace for freelance digital services, we demonstrate a large negative effect on demand from an assortment with an extreme high price, but also carve out the boundary conditions for this finding, along with several key moderators. These results inform pricing theories as well as give direct usable tools for practitioners.

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**ANDREA MORALES**



**ARIZONA STATE  
UNIVERSITY**

## Responses To Gender-Based Price Variation: Differences Or Discrimination?



Consumers frequently encounter gendered products that are very similar to one another, if not identical, yet their prices are different: sometimes women pay more and sometimes men pay more. Despite gender serving as the basis for these price differences, we know very little about how men versus women respond to gendered pricing strategies. In the current research, we demonstrate that when consumer prices are higher for one gender versus the other, men and women respond differently. Specifically, when being charged more, women’s experiences in society prompt them to view the differential prices across genders as inherently discriminatory, unjustified, and unfair. These increased discrimination and price unfairness perceptions, in turn, lower purchase likelihood and brand evaluations. In contrast, negative responses to paying more are attenuated among men because they are more likely to view observed price differences as justified and fair due to their lower likelihood of questioning the status quo. This research takes the first step in understanding the psychological processes and behavioral consequences of gender-based price variation among men versus women and provides actionable implications for marketers in designing effective pricing strategies.

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**CLAYTON CRITCHER**



**UC BERKELEY**

## Evaluations Are Inherently Comparative, But Compared To What?



Understanding how objective quantities are translated into subjective evaluations has long been of interest not only to judgment and decision making researchers, but also to other social scientists, medical professionals, and policymakers with an interest in how people process and act on quantitative information. Decision by sampling has offered an influential account for how objective attribute values are subjectively evaluated to guide decisions. That theory suggests an inherently comparative procedure: Values seem larger or smaller based on how they rank in a comparative set, the decision sample. Although decision by sampling has proven its practical value in several ways (e.g., helping to explain JDM anomalies that prospect theory cannot), its application and influence have been limited due to its incomplete answer to a central question: Which values are even included in the decision sample? In their original treatise on decision by sampling, Stewart and colleagues (2006) wrote, “We assume that the decision sample, to which a target...is compared, is a small, random sample...from memory.” They went on to say that “of course this random sampling assumption is likely to be incorrect” (p. 4). We identify and test four mechanistic accounts, each suggesting that how previously encountered attribute values are processed determines whether they linger in the sample to guide the subjective interpretation, and thus influence, of newly encountered values. Testing our ideas through studies of loss aversion, delay discounting, and vaccine hesitancy, we find clear support for one account: Quantities need to be subjectively evaluated—rather than merely encountered—for them to enter the decision sample, alter the subjective interpretation of other values, and then guide decision making. Discussion will focus on how the present findings inform understanding of the nature of the decision sample and identify new research directions for the longstanding question of how comparison standards influence decision-making.

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**ANER SELA**



**UNIVERSITY OF  
FLORIDA**

## How Product Categories Shape Self-Attributions



We find that framing choice options as representing different sub-categories, rather than a single overarching category, leads decision makers to construe the decision as a choice among different goals, rather than among means to an overarching goal. Because goals originate from the self, whereas means are seen as more external and objective, separate category labels increase the tendency to attribute choice to one's true inner preference, with downstream implications for choice valuation. Furthermore, when difficulty arises during the choice process, separate categorization increases decision makers' tendency to attribute difficulty to the self ("I am not sure what I want"), rather than an external source such as the availability of options ("I don't see something I like"). This, in turn, leads them to seek information that can help them form clearer preferences, rather than search for better options, respectively.

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# Additional Notes



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# ATTENDEES



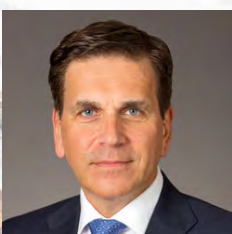
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**DARRON BILLETER**  
**BRIGHAM YOUNG UNIVERSITY**



**AARON R. BROUGH**  
**UTAH STATE UNIVERSITY**



**ALEX CHERNEV**  
**NORTHWESTERN UNIVERSITY**



**CLAYTON R. CRITCHER**  
**UC BERKELEY**



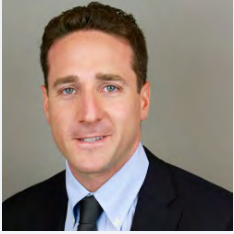
**JOSH DEAN**  
**UNIVERSITY OF CHICAGO**



**KRISTIN DIEHL**  
**UNIVERSITY OF SOUTHERN CALIFORNIA**



**CRAIG R. FOX**  
**UCLA**



**CARY FRYDMAN**  
**UNIVERSITY OF SOUTHERN CALIFORNIA**



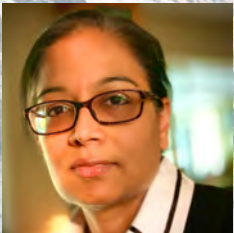
**GERALD HÄUBL**  
**UNIVERSITY OF ALBERTA**



**JEFFREY LARSON**  
**BRIGHAM YOUNG UNIVERSITY**



**TAMARA MASTERS**  
**UNIVERSITY OF UTAH**



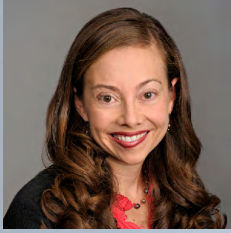
**ARUL MISHRA**  
**UNIVERSITY OF UTAH**



**HIMANSHU MISHRA**  
**UNIVERSITY OF UTAH**



**DON MOORE**  
**UC BERKELEY**



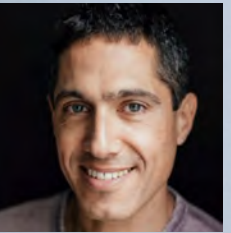
**ANDREA MORALES**  
**ARIZONA STATE UNIVERSITY**



**STIJN VAN OSSELAER**  
**CORNELL UNIVERSITY**



**ALEX REES-JONES**  
**UNIVERSITY OF PENNSYLVANIA**



**ANER SELA**  
**UNIVERSITY OF FLORIDA**



**STEPHEN SPILLER**  
**UCLA**



**GÜLDEN ÜLKÜMEN**  
**UNIVERSITY OF SOUTHERN CALIFORNIA**

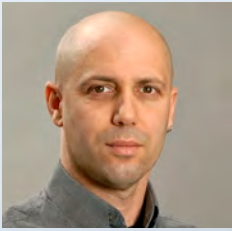


**LEAF VAN BOVEN**  
**UNIVERSITY OF COLORADO**



**FANG YU-BUCK**  
**UNIVERSITY OF HOUSTON CLEAR LAKE**





**GAL ZAUBERMAN**  
**YALE UNIVERSITY**



**ROBERT ZEITHAMMER**  
**UCLA**



**MENG ZHU**  
**JOHNS HOPKINS UNIVERSITY**

