

Zeuthen Workshop 2025

Program and Participant List

Day 1 (Monday) 26. May 2025 Room: CSS 35.01.05 16:00 – 17:15 Zeuthen Lecture I – *The Cognitive Turn in Behavioral Economics*, Benjamin Enke, Harvard 17:15 -18:00 Reception with drinks and snacks *(no registration necessary)*

Day 2 (Tuesday) 27. May 2025

Room: CSS 35.3.20

9:00-9:20 Coffee

9:20-9:30 Welcome

9:30-10:00 Talk 1: Kai Barron, WZB Berlin, Narratives and the Act of Choosing

10:00-10:30 Talk 2: Clara Sievert, CERGE-EI, Supernatural Beliefs about Illness and Modern

Medicine Use: Evidence from the DR Congo

10:30-11:00 Talk 3: Menglong Guan, Penn State University, Choosing between information

bundles

11:00-11:30 Coffee Break

11:30-12:00 Talk 4: En Hua Hu, University of Oxford, Procedural Choice under Risk

12:00-12:30 Talk 5: Natalie Lee, University of Amsterdam, CREED, Belief Bias in Inverse-order

Statistic Problem

12:30-13:30 Lunch (for everyone registered for the workshop)

13:30-14:30 Zeuthen Lecture II - An Incomplete-Information Model of Bounded Rationality

14:30-15:00 Coffee Break

15:00-15:30 Talk 6: Paul Grass, University of Bonn, Sticky Models

15:30-16:00 Talk 7: Julian Matthes, Heidelberg University, *Demand for Mental Models* 16:00-16:30 Talk 8: Luigi Butera, Copenhagen Business School, *Beliefs About The Economy Are Excessively Sensitive To Household-level Shocks: Evidence From Linked Survey And Administrative Data*

18:00 Workshop Dinner at Vækst (for presenting participants)

Day 3 (Wednesday) 28. May 2025

Room: CSS 35.3.20

9:00-9:30 Talk 9: Luca Henkel, Erasmus University Rotterdam, The Role of Interpersonal

Uncertainty in Prosocial Behavior

9:30-10:00 Talk 10: Andrea Amelio, Bocconi University, Contingent Belief Updating

10:00-10:30 Talk 11: Avner Seror, Aix Marseille School of Economics, CNRS, Semi-Parametric

Approach to Behavioral Biases

10:30-11:00 Coffee Break

11:00-11:30 Talk 12: Jacopo Magnani, Norwegian University of Science and Technology, On

the Cognitive Foundations of Trade

11:30-12:00 Talk 13: Junya Zhou, The University of Texas at Dallas, Complexity,

Communication and Misrepresentation

12:00-12:30 Talk 14: Florian Schneider, University of Copenhagen, Weighting Competing

Models

12:30-13:30 Lunch (for everyone registered for the workshop)

13:30-14:30 Zeuthen Lecture III - Complexity and Behavioral Attenuation

Presenting Participants

Benjamin Enke, Harvard University, Zeuthen Lectures I, II, III

Kai Barron, WZB Berlin, Narratives and the Act of Choosing

We use an experiment to study whether individuals construct and adopt narratives to justify choices. Participants observe data and bet on a hypothetical company. They also develop and receive a narrative about the company's future success. We compare narrative development and adoption to conditions that exogenously assign bets or do not involve them at all. We find that participants selectively doubt narratives that challenge their chosen bet. This selectivity fades when participants hold but did not choose a bet or when the narra- tive coheres well with the data. People doubt what challenges their choices, but coherent narratives and lack of ownership dissolve the bias.

Clara Sievert, CERGE-EI (Charles University, Czech Academy of Sciences), Supernatural Beliefs about Illness and Modern Medicine Use: Evidence from the DR Congo

In many societies around the world, people attribute illness to supernatural forces, including deities, spirits, and malevolent agents. Using observational data from sub-Saharan Africa and an original large-scale survey in the Democratic Republic of Congo (DRC), I document the nearuniversality of supernatural beliefs about illness -- 94\% of respondents hold at least one such belief -- and their relevance for health behavior: They are linked to lower use of and beliefs in the effectiveness of modern medicine, and higher stigma toward those with illness. Then, I conduct a field experiment in the DRC to test whether these beliefs can be shifted. I randomize showing an informational video about the biomedical cause and treatment of epilepsy, a prevalent disease commonly associated with supernatural forces. The intervention shifts respondents' beliefs away from supernatural causes and toward modern medicine's effectiveness, not only for epilepsy but for other conditions. Moreover, the intervention reduces stigma toward those with the disease and increases take-up of free hospital consultations for epilepsy by 50%.

Menglong Guan, Penn State University, Choosing between information bundles

This paper presents an experimental study on how people choose sets of information sources (referred to as information bundles). The findings reveal that subjects frequently fail to choose the more instrumentally valuable bundle in binary choices, largely due to the challenge of integrating the information sources within a bundle to identify their joint information content. The mistakes in choices can not be attributed to an inability to use information bundles. Instead, these mistakes are strongly explained by subjects' tendency to follow a simple but imperfect heuristic when valuing them, which I call "common source cancellation (CSC)". The heuristic

causes subjects to mistakenly disregard the common information source in two bundles and focus solely on the comparison of the sources that the two bundles do not share. As a result, choices between information bundles are made without adequately considering the joint information content of each bundle. Notably, CSC emerges as a robust explanation for the information bundle choices for all subjects, including those who make perfect use of information bundles to make inferences.

En Hua Hu, University of Oxford, Procedural Choice under Risk

Decision-makers often use procedures to evaluate risky prospects. This paper focuses on the procedure of merging separate outcomes. I offer a procedural foundation for expected utility and models of rank-dependence, betweenness, and complexity aversion. Expected utility is characterized by uniformity and costlessness of the procedure across prospects. Relaxing uniformity characterizes rank-dependence and betweenness while relaxing costlessness characterizes complexity aversion.

Andrea Amelio, Bocconi University, Contingent Belief Updating

We study the impact of contingent thinking on belief updating. Engaging in contingent thinking calls for both processing hypothetical information and contrasting multiple contingencies during the belief-updating process. Our experimental findings show that contingent thinking leads to significant deviations from Bayesian updating. These deviations arise from the diminished perceived informativeness of hypothetical signals and the challenges posed by asymmetric signals, where comparing contingencies becomes more difficult. These results have implications for contingent planning, information acquisition, and information design.

Junya Zhou, The University of Texas at Dallas, Complexity, Communication and Misrepresentation

We investigate how increasing the complexity of the message space, in the presence of limited memory, can reduce misrepresentation in strategic communication. We enrich a standard cheap talk game so that senders must communicate not just a payoff-relevant state, but also payoff-irrelevant attributes correlated with the state. We show that: (i) increasing the set of attributes that may need to be reported (i.e., the complexity of the game) improves the amount of information transmitted in equilibrium, (ii) too much of an increase in complexity leads to a reversal of those gains, (iii) limited memory on the part of players, as well as the relative complexity faced by senders and receivers, drives these changes, and (iv) individuals experience cognitive costs when dealing with complex environments that they are willing to pay to avoid. Our findings demonstrate that the reporting of redundant information may induce equilibria that feature improved outcomes compared to simpler, more direct reporting systems, and point out the importance of complexity when trying to induce truthful information revelation.

Luca Henkel, Erasmus University Rotterdam, The Role of Interpersonal Uncertainty in Prosocial Behavior

In prosocial decisions, decision-makers are inherently uncertain about how their decisions impact others' utility – we call this interpersonal uncertainty. We show that people's response to interpersonal uncertainty shapes well-known patterns of prosocial behavior. First, using standard social allocation decisions, we replicate the classic patterns of ingroup favoritism, merit-based fairness ideals, and self-favoring behavior in dictator games. We then show that these patterns also arise in non-social decisions which have no consequences for others and instead solely reflect responses to interpersonal uncertainty. Behavior across social and non-social decisions is highly correlated, and self-reported interpersonal uncertainty predicts behavior in both situations. Moreover, exogenously varying interpersonal uncertainty shifts prosocial behavior in the direction that avoids such uncertainty. Our results quantify how beliefs in the form of interpersonal uncertainty influence prosocial behavior, which we estimate to be of similar importance to social preferences.

Avner Seror Aix Marseille School of Economics, CNRS, Semi-Parametric Approach to Behavioral Biases

This paper formalizes and shows how to recover many known behavioral models from the revealed preference ranking implied by choices. The method is flexible enough to identify complex biases, characterized as composed of simpler biases like inattention, or salience thinking. I show that by filtering out choice data from behavioral influences, it is possible to distinguish preference heterogeneity from behavioral bias heterogeneity. The method is applied to workhorse datasets related to risk choices and consumer behaviors. Several well-known regularities in preference heterogeneity appear to be primarily explained by behavioral bias heterogeneity.

Jacopo Magnani, Norwegian University of Science and Technology , On the Cognitive Foundations of Trade

This paper investigates the role of cognitive frictions in generating speculative trade, focusing on three prominent simplification strategies: imprecise, inattentive, and incomplete decision-making. In a minimal trading setting where standard no-trade theorems predict no trade under full rationality, we show theoretically how these cognitive frictions can induce trade by introducing noise, misallocating attention, or neglecting the strategic implications of others' decisions. To identify the empirical relevance of these mechanisms, we design an experiment varying the signals received by subjects as well as the private or public nature of information. We find strong evidence that all three frictions independently contribute to trade, with incomplete strategies having the largest impact. Additional tasks with endogenous signal quality reveal hows

salience amplifies the role of inattentive strategies, while ruling out overconfidence as a primary driver. Structural estimation highlights how these frictions interact with one another and are moderated by equilibrium effects.

Paul Grass, University of Bonn, Sticky Models

People often form mental models based on incomplete information, revising them as new relevant data becomes available. In this paper, we experimentally investigate how individuals update their models when data on predictive variables are gradually revealed. We find that people's models tend to be `sticky,' as their final models remain strongly influenced by earlier models formed using a subset of variables. Guided by a simple framework highlighting the role of attention in shaping model revisions, we document that less attentive participants exhibit higher model stickiness. Additionally, subjects' final models are strongly predicted by their reasoning -- their self-described approach to extracting models from data.

Julian Matthes, Heidelberg University, Demand for Mental Models

We run a series of online experiments to investigate how decision-makers' inference from historical data is influenced by pointing out patterns in historical data. In the first experiment, participants face a prediction task while having access to two types of information: historical outcomes and meta-information in the shape of hints about patterns in the historical dataset. Participants repeat the prediction task with the option to choose between additional data points and an additional hint. We find that hints move assessments strongly, and that subjects prefer hints over data. We also vary how explicit hints are and find that more explicit hints move assessments more, which is consistent with subjects putting more weight on meta-information if it is easier to process. Lastly, we investigate if decision-makers react differently if hints induce higher anticipatory utility, but do not find evidence in support of such wishful thinking. This is relevant for the literature on mental model selection, where anticipatory utility has been proposed as a selection criterion. In a second experiment, we explore which hints are expected to be more convincing by letting subjects persuade participants from the first experiment. In this experiment, we find that the hints that have stronger effects are indeed expected to be more convincing.

Luigi Butera, Copenhagen Business School, Beliefs About The Economy Are Excessively Sensitive To Household-level Shocks: Evidence From Linked Survey And Administrative Data

We study how people's beliefs about the economy covary with household-level events, utilizing a unique link between Danish administrative data and a large-scale survey of consumer expectations. We find that compared to actual inflation, people's inflation forecasts covary much more strongly (and negatively) with both recently realized household income changes and measures of expected future household income changes. We formally establish that these findings are stark deviations from the Bayesian limited-information rational expectations (LIRE) benchmark. Similar results hold for perceptions of past inflation ("backcasts"), suggesting that imperfect recall is a key mechanism for biased forecasts. Building on this, a series of additional tests, some of which utilize data on adverse health events, suggests that the forecast biases are at least partly due to selective recall cued by affective associations. That is, negative (positive) household-level events cue negative (positive) recollections, which lead to pessimistic (optimistic) forecasts.

Natalie Lee, University of Amsterdam, CREED, Belief Bias in Inverse-order Statistic Problem

We investigate belief bias in the Inverse-Order Statistic Problem, where individuals infer underlying states from rank-selected signals, such as "first-best" disclosures in economic contexts and social media. A lab experiment elicited participants' beliefs about the share of black balls in jars based on the highest or median signal observed across multiple samples. We find a persistent positive bias in beliefs—overestimating the number of black balls—when participants are shown the highest signal. Although errors decrease over time, positive bias persists, and even increases in the Description treatment where the underlying distribution was explicitly described. This trend is driven by female participants whose asymmetric learning reduces only negative errors. The positive bias predicts suboptimal economic decisions, such as overbidding in auctions. These findings reveal how biased processing of rank-selected signals shapes perceptions and decision-making, with implications for social comparisons, labor market behavior, and gender disparities in these domains.

Florian Schneider, University of Copenhagen, Weighting Competing Models

We study how individuals update their beliefs in the presence of competing data-generating processes, or models, that could explain observed data. Through experiments, we identify the weights participants assign to different models and find that the most common updating rule gives full weight to the model that best fits the data. While some participants assign positive weights to multiple models—consistent with Bayesian updating—they often do so in a systematically biased manner. Moreover, these biases in model weighting frequently lead participants to become more certain about a state regardless of the data, violating a core property of Bayesian updating.

Non-Presenting Participants (tbd)

Christina Gravert, University of Copenhagen Jean-Robert Tyran, University of Copenhagen and University of Vienna Anand Murugesan, University of Vienna Daniel Enemark Riegels, University of Copenhagen Amalie-Maria Jacobsen, University of Copenhagen