Compared to more sophisticated equilibrium theory, naive, non-equilibrium behavioral rules often better describe individuals’ initial play in games. Additionally, in repeated play in games, when individuals have the opportunity to learn about their opponents’ past behavior, learning models of different sophistication levels are successful in explaining how individuals modify their behavior in response to the provided information. How do subjects following different behavioral rules in initial play modify their behavior after learning about past behavior? This study links initial and repeated play in games by analyzing elicited behavior in 3 × 3 normal-form games using a within-subject laboratory design. We classify individuals into different behavioral rules in both initial and repeated play and test whether and/or how strategic naivety and sophistication in initial play correlate with naivety and sophistication in repeated play. We find no evidence of a positive correlation between naivety and sophistication in initial and repeated play.

How can honesty evolve, if one can gain from lying? We experimentally test how, in the presence of asymmetric information, honesty allows people to credibly commit to behaving prosocially, and that partner choice then explains why honesty in people has been selected for. Our results show that there is a strong preference for honest partners, driven by an expected positive correlation between honesty and prosociality, and that this is also rationalized as honest people behave indeed more prosocially. By comparing treatments with communication and without communication, we further study how communication can scaffold the connection between honesty and prosociality. We show that honest individuals are consistently prosocial independent of whether there is explicit communication or not. Less honest individuals on the other hand use the asymmetry in information to their advantage when this requires them to deceive their partners implicitly, but not when it requires them to tell an explicit lie. Honesty therefore credibly signals commitment to prosociality and makes honest people more attractive partners, which can then compensate for the costs of honesty, and explain how honesty can evolve.
Simona Cicognani (University of Utrecht)
It's Time to Cheat!

We run a laboratory experiment testing the correlation between time preferences and cheating at the individual level. In our experiment cheating increases the earnings of those who commit it and it only entails a moral cost for the cheater. Our hypothesis is that cheating is higher among individuals who attribute more importance to the present. We observe widespread cheating, and that cheating prevails among subjects who display present bias and overconfidence. Cheating is also negatively correlated with risk aversion and the discount factor, but only for men, while the impact of present bias seems to be stronger for women. Interestingly, a non-negligible fraction of the cheating we observe is not motivated by monetary reward, for these individuals the impact of overconfidence and present bias seems also different.

Guillem Riambau (Universitat de Barcelona)
Lying Behavior When Payoffs are Shared with Charity: Experimental Evidence

We investigate lying behavior when lying is undetectable and payoffs are split with charity. 524 participants roll a die in private, report the outcome, and receive the monetary equivalent of their reported number, i.e., there is a clear incentive to lie. Participants are randomly assigned to share all, some, or none of this payoff with a charity of their choice. This allows us to examine how lying behavior changes with the share of payoffs going to charity. Our results are as follows: (i) there are participants in every group who lie to inflate their reported number; (ii) participants with no share of the payoff lie much less than participants with some share, no matter how small; and (iii) post-experiment surveys reveal that participants who keep the whole payoff are much less likely to admit to having cheated than all other participants. Finally, our data suggests that lying is not correlated with any observable sociodemographic characteristic.

Arjun Sengupta (Heidelberg University)
Promises and Opportunity cost

This paper experimentally investigates the hypothesis that promise-keeping behavior is affected by the value of the opportunity that a counterpart has foregone by relying on the promise. We present two motivational mechanisms that could drive such an effect. One is that people dislike causing harm through a promise, and that they measure such harm by comparing what the counterpart will receive if the promise is broken as compared to what she would have received if she had not relied on the promise. The other is that people dislike causing regret in another person. We test these ideas in the context of an experimental trust game involving an uncertain payoff from the first mover’s outside option. The main treatment variable is the (initially unknown) payoff that the first mover would have received if she had chosen "out". While the value of the outside option is unknown when the first mover chooses, it becomes known to the second mover before he makes his choice. Consistent with our main hypothesis, we find that an increase in this foregone payoff increases promise-keeping behavior. The experiment is designed to rule out alternative explanations for such an effect. Our evidence suggests that the mechanism driving the effect may involve an aversion to causing regret in others.

Behavioral Finance

Pascal Kieren (University of Mannheim)
Expectation Formation under Uninformative Signals

How do individuals process non-diagnostic information? The neoclassical theory of probabilistic beliefs assumes that people update their prior beliefs according to Bayes’ Theorem as new (relevant) information arrives. This paper provides experimental evidence that individuals update their prior beliefs even after observing uninformative signals. Importantly, the direction in which they update depends on the valence of the signal. Prior beliefs become more optimistic after desirable uninformative signals and more pessimistic after undesirable uninformative signals. This bias in information processing becomes even more severe when the valence of a signal is at odds with individuals’ prior beliefs about the desirability and in situations in which individuals are intrinsically motivated to hold a particular belief. Our results provide novel insights why individuals form and entertain false beliefs in environments where potentially new information is easily accessible but costly to verify (e.g. online media).
Bayes’ Theorem has an implicit, fundamental rule of how subjects should incorporate informationally equivalent signals of opposite direction: two opposite-directional signals should cancel out such that prior beliefs remain constant. In this study, we test whether agents always follow this simple counting heuristic. We find that this is not the case. Whenever a sequence of signals that go in the same direction is interrupted by a signal of opposite direction, agents violate the simple counting heuristic and strongly overreact to the signal of opposite direction. In contrast to that, subjects correctly follow the counting heuristic whenever opposite-directional signals alternate. Building on our experimental findings, we empirically analyze announcement and post-announcement stock return reactions. In line with our experimental evidence, we find that initial stock reactions are significantly stronger and subsequent price drifts weaker for opposite-directed earnings surprises than for same-directed earnings surprises.

Sven Nolte (Radboud University)
*Intrinsic Preferences for the Timing and the Skewness of Information Revelation: Experimental Evidence on Information Structures and Compound Lotteries*

In a comprehensive experimental study, we explore intrinsic preferences for gradual information revelation with different skewness (positive, negative, or symmetric) and demonstrate that intrinsic skewness preferences depend on the information environment. In a `compound lottery' environment non-skewed information revelation is the most preferred option. In an equivalent `information structure' environment, most participants prefer positively skewed information revelation. Our participants also evaluate early and late resolution, and state preferences for all pairwise comparisons. Our study provides a complete picture of intrinsic preferences for information revelation, integrating previous studies that have focused on specific facets of the phenomenon. We discuss for a number of decision theories which allow for the timing of non-instrumental information revelation to influence preferences and we find that no extant theory can explain the overall preference patterns observed in our experiment.

Brice Corgnet (Emylon Business School)
*Negative tail events, emotions and risk taking*

We design and implement a novel experiment to assess investor's behavioral and physiological reactions to non-hypothetical negative tail events. Investors who observed, without suffering from, tail events subsequently decreased their pricing of the asset. Instead, loss-averse investors suffering tail losses increased their bids, especially those exhibiting a strong emotional response. Anger-prone investors exhibiting high levels of emotional arousal, as measured using electrodermal activity, were more likely to go bankrupt and earned less money when tail events occurred frequently. By contrast, bankruptcy affected fearful investors less, thus challenging the commonly held view that investors should silence their emotions.

**Choices under Uncertainty**

Yefim Roth (Haifa University)
*Decisions from Valuations of Unknown Payoff Distributions*

Three experiments are presented that clarify the impact of experience on the way people use valuations. In each of the 100 trials of Study 1, participants were asked to choose between the status quo and an unknown binary lottery based on valuations of the lottery by two expert systems: a well-calibrated “expert” reporting the expected value, and an expert that ignores the low probability outcome and reports the median (the high probability outcome). The results reveal that experience (observing the outcomes obtained in previous trials) decreases the tendency to follow the recommendation of the well-calibrated expert. This deviation from maximization appears to reflect two biases: the tendency to follow the expert that provides the more accurate valuation in most cases, and the tendency to follow the more extreme valuation. Study 2 shows a similar pattern in choice between two payoff distributions. Study 3 takes the point of view of a policy maker who tries to reduce the impact of expert systems that neglect rare outcomes. The results highlight the value of two methods: increasing the quality of the feedback available to the decision makers, and exaggeration (replacing the well-calibrated valuations with more extreme valuations). Importantly, the joint impact of the two methods suggests a synergistic effect: exaggeration enhances the positive impact of increasing the quality of the feedback. These results can be captured by assuming both the use of several "expert weighting rules" and the selection between the rules based on small samples of past experiences.
Taisuke Imai (LMU Munich)
*Meta-Analysis of Empirical Estimates of Loss-Aversion*

Loss aversion is one of the most widely used concepts in behavioral economics. We conduct a large-scale interdisciplinary meta-analysis, to systematically accumulate knowledge from numerous empirical estimates of the loss aversion coefficient reported during the past couple of decades. We examine 607 empirical estimates of loss aversion from 150 articles in economics, psychology, neuroscience, and several other disciplines. Our analysis indicates that the mean loss aversion coefficient is between 1.8 and 2.1. We also document how reported estimates vary depending on the observable characteristics of the study design.

Moritz Loewenfeld (Toulouse School of Economics)
*Does correlation really matter in risk taking? An experimental investigation*

Two prominent alternatives to expected utility theory, regret theory and salience theory, rely on the assumption that when a decision maker chooses between two lotteries, not only the marginal distribution of the lotteries, but also the correlation of payoffs across states impacts risk taking. Recent experimental studies on salience theory seem to provide evidence in favor of such correlation effects. However, these studies fail to control for events-splitting effects (ESE). In the first part of this paper, we seek to disentangle the role of correlation and event-splitting in two settings: 1) the common consequence Allais paradox as studied by Bruhin et al. (2018); Frydman and Mermann (2018); 2) choices between Mao pairs as studied by Dertwinkel-Kalt and Köster (2019). In both settings, we find evidence suggesting that recent findings supporting correlation effects are largely driven by ESE. Once controlling for ESE, we find no consistent evidence for correlation effects. We further test for correlation effects in a novel task that allows to detect correlation effects even when they are of second-order importance only. In this setting, we find a precisely estimated null effect. Finally, we demonstrate that when changing the correlation structure implies a change from state-wise domination to FOSD, this can lead to an increase in the number of suboptimal choices. The observed choice patterns contradict both salience and regret theory. Our results thus shed doubt on these theories but also provide evidence that correlation effects exist in some cases.

Ori Plonsky (Technion, Haifa)
*Underweighting of rare events in social interactions and its implications to the design of voluntary health applications*

Research on small repeated decisions from experience suggests that people often behave as if they underweight rare events and choose the options that are frequently better. In a pandemic, this tendency implies complacency and reckless behavior. Furthermore, behavioral contagion exacerbates this problem. In two pre-registered experiments (Ntotal = 312), we validate these predictions and highlight a potential solution. Groups of participants played a repeated game in one of two versions. In the basic version, people clearly preferred the dangerous reckless behavior that was better most of the time over the safer responsible behavior. In the augmented version, we gave participants an additional alternative abstracting the use of an application that frequently saves time but can sometimes have high costs. This alternative was stochastically dominated by the responsible choice option and was thus normatively irrelevant to the decision participants made. Nevertheless, most participants chose the new ("irrelevant") alternative, providing the first clear demonstration of underweighting of rare events in fully described social games. We discuss public policies that can make the responsible use of health applications better most of the time, thus helping them get traction despite being voluntary. In one field demonstration of this idea amid the COVID-19 pandemic, usage rates of a contact tracing application among nursing home employees more than tripled when using the app also started saving them a little time each day, and the high usage rates sustained over at least four weeks.

Beliefs and Strategic Thinking

Yongping Bao (Universität Bremen)
*Sustaining Cooperation with Correlated Information*

We investigate cooperation in the indefinitely repeated prisoners’ dilemma when players receive correlated public signals of their actions in an experiment. In one treatment, public signals are perfectly correlated if both players choose the same action, otherwise independent. In another treatment, public signals are always independent. Theoretically, the implemented correlation structure allows for perfect cooperation based on a simple grim-trigger strategy which conditions on the public signals. Our experimental results show that a substantial fraction of subjects use this strategy in the treatment with correlated signals. However, correlated signals do not result in more cooperative actions as behavior is more lenient if signals are independent.
Jacopo Magnani (Emlyon Business School)
*Limited Strategic Thinking and the Cursed Match*

In vertically differentiated matching markets with private information, agents face an acceptance curse: being accepted as a partner by another agent conveys bad news about their quality. In this paper we report an experiment designed to test whether individuals anticipate the acceptance curse in such an environment. We test the effect of an exogenous change in reservation values which, by making some types pickier, induces significant changes in the posterior distribution of match qualities. Consistent with limited strategic sophistication, we find subjects do not respond to this manipulation. Results from additional treatments and estimates of a structural model suggest that out-of-equilibrium beliefs are quantitatively more important than limited conditional thinking in explaining behavior.

Ciri Bosch-Rosa (TU Berlin)
*The Effects of Overconfidence on the Political and Financial Behavior of a Representative Sample*

We study how overconfidence affects the political and financial behavior of a nationally representative sample. To do so, we introduce a new method of eliciting overconfidence that is simple to understand, quick to implement, and captures the excess confidence of respondents on their own judgment. Our results show that, in line with theoretical predictions, an excessive degree of confidence in one’s judgment is correlated with lower portfolio diversification, larger stock price forecasting errors, more extreme political views, and a change in voting behavior. These results validate our method and show how overconfidence is a bias that permeates several aspects of peoples’ life.

Evan Calford (Australian National University, Canberra)
*Contingent Reasoning and Dynamic Public Goods Provision*

Individuals often possess private information about the common value of a public good. Their contributions toward funding the public good can therefore reveal information that is useful to others who are considering their own contributions. This experiment compares static (simultaneous) and dynamic (sequential) contribution decisions to determine how hypothetical contingent reasoning differs in dynamic decisions. The timing of individuals’ sequential contribution decisions is endogenous. Funding the public good is more efficient with dynamic than static decisions in equilibrium, but this requires the decision-maker to understand that in the future they can learn from past events. Our results indicate that a large fraction of subjects appreciate the benefits of deferring choice to learn about the contribution decisions of others. The bias away from rational choices is in the direction of Cursed equilibrium on average, particularly in the static treatment.

**Social Groups and Networks**

Martin Benedikt Busch (University of Copenhagen)
*Nudging Cooperation in Networks*

We investigate cooperation behavior of humans embedded in networks. In our laboratory experiment, subjects build their own network. They send costly messages to each other that contain valuable information for the receiver or other subjects in the network. Sending a message is beneficial for the entire network as it increases the probability that subjects find the information they are looking for. However, classical game theory predicts zero cooperation when we measure cooperation by the profit subjects earn. We find that subjects cooperate, generate a profit for themselves and others’, and that cooperation persists. We change subjects’ perceptions of the network by providing initial suggestions of whom to contact. We find that subjects send more messages - increasing their own and others’ profit. Despite the removal of suggestions, subjects build long-lasting relationships with the suggested contacts.

Henrike Sternberg (TU Munich)
*On the Basis of (Mis)Trust? Spousal Trust and Trustworthiness in Household Decision Making: Experimental Evidence from India*

This paper examines the role of spousal trust in intra-household decision making through its potential of inciting the creation of information asymmetries in the presence of resource unobservability. We experimentally elicit spousal trust and trustworthiness by means of a binary trust game to assess heterogeneity in saving behavior among low-income slum dwellers in urban India. 360 married couples were randomly assigned to either a control group, receiving a shared saving device (a lockbox), or a treatment group, receiving a private saving device (a zip-purse) in addition to the lockbox. We find that the supplementary receipt of the private device significantly increased the wife’s savings in couples with a low level of spousal trust. In couples with higher levels of trust, the effect coefficient
turned negative. While this heterogeneity is driven by the wife’s mistrust in absence of her husband’s trustworthiness, we provide supportive evidence of an important channel being more effective hiding of the wife’s savings amounts, facilitated through the private saving device. From a policy perspective, our findings have important implications for the design and evaluation of household-based (saving) interventions by offering a novel explanation for existing discrepancies between their observed and intended effects.

Alexandra Baier (University of Innsbruck)
Ostracism and Theft in Heterogeneous Groups

Ostracism, or exclusion by peers, has been practiced since ancient times as a severe form of punishment against transgressors of laws or social norms. The purpose of this paper is to offer a comprehensive analysis on how ostracism affects behavior and the functioning of a social group. We present data from a laboratory experiment, in which participants face a social dilemma on how to allocate limited resources between a productive activity and theft, and are given the opportunity to exclude members of their group by means of majority voting. Our main treatment features an environment with heterogeneity in productivity within groups, thus creating inequalities in economic opportunities and income. We find that exclusion is an effective form of punishment and decreases theft by excluded members once they are re-admitted into the group. However, it also leads to some retaliation by low-productivity members. A particularly worrisome aspect of exclusion is that punished group members are stigmatized and have a higher probability of facing exclusion again. We discuss implications of our findings for penal systems and their capacity to rehabilitate prisoners.

Péter Bayer (Toulouse School of Economics)
Optimism leads to optimality: ambiguity in network formation

We analyze a model of endogenous two-sided network formation where players are affected by uncertainty in their opponents’ decisions. We model this uncertainty using the notion of equilibrium under ambiguity (Eichberger and Kelsey, 2014). Unlike the set of Nash equilibria, the set of equilibria under ambiguity does not always include underconnected and thus inefficient networks such as the empty network. On the other hand, it may include networks with unreciprocated, one-way links, which comes with an efficiency loss as linking efforts are costly. We characterize equilibria under ambiguity and provide conditions under which increased player optimism comes with an increase in efficiency in equilibrium. Next, we analyze the dynamic situation with one-sided, myopic updating with regular optimistic shocks and derive a global stability condition of benefit-maximizing equilibrium networks.

Keynote Presentation
14:45-15:30
Camelia Kuhnen (UNC Kenan-Flagler Business School),
How do households form economic expectations?

Parallel Sessions
15:45-17:05
Development of Preferences and Skills

Neslihan Uler (University of Maryland)
The Impact of Exposure to Political Violence on Risk and Ambiguity Attitudes

We conduct an incentive-compatible field experiment with a large representative sample to study how exposure to political violence in a civil conflict context affects risk and ambiguity preferences of individuals. We identify random exposure to violence by relying on a natural experiment in Turkey created by the military institutions and the long running civil conflict in the country. We show that the effect of violence exposure on risk and ambiguity preferences depend on the type of exposure. We find that while being exposed to the conflict environment induces individuals to become more risk-tolerant, having traumatic direct experiences in that environment creates the opposite effect and renders individuals extremely risk averse. Such individuals also become more averse to ambiguity. We also show that time of exposure should be considered in determining the overall effects. Overall our findings indicate that preferences on risk and ambiguity are history-dependent.
Laura Breitkopf (Heinrich Heine University – DICE)

The Formation of Self-Control and Prosociality: The Role of Investments, Sensitive Periods, and Spillovers Among Family Members

This paper analyzes the effects of a randomly assigned, classroom-based social and emotional learning program on the formation of self-control and prosociality in children aged 8 to 11 in Bangladesh. The treatment increases both outcomes by about 10% of a standard deviation. Implementing the same program in grades 2 to 5 allows investigating sensitive periods in the formation of socio-emotional skills through effect size heterogeneity across grades. For self-control, we find that younger children benefit strongest, while the effects on prosociality are rather stable across grades.

Lenka Fiala (Tilburg University)

Peers and the Evolution of Skills during Adolescence

We study the importance of peer spillovers for the formation of cognitive skills. Spillovers are a common, and in practice often unavoidable, confound in long-term educational interventions where students interact with their friends who might have received a different treatment. Because ignoring peer effects can lead to either over- or under-estimation of treatment effects, understanding their workings is crucial for public policy (Wilkinson et al., 2000).

We use data from a year-long intervention in Chicago that aimed to improve students’ cognitive and non-cognitive skills. We provide two contributions: First, we describe how students sort into friendships based on multidimensional skills and characteristics. We find that friends are positively selected on all dimensions of skills, and most dimensions of personality traits, and time-use. Second, we analyse the importance of peers for treatment effect estimates, focusing on the formation of cognitive skills. We find that our treatment effect estimates are robust to controlling for peers' treatment assignment, skills, and position in the school network.

Victoria Prowse (Purdue University)

Cognitive skills, strategic sophistication, and life outcomes

We investigate how childhood cognitive skills affect strategic sophistication and adult outcomes. In particular, we emphasize the importance of childhood theory-of-mind as a cognitive skill. We collected experimental data from more than seven hundred children in a variety of strategic interactions. First, we find that theory-of-mind ability and cognitive ability both predict level-k behavior. Second, older children respond to information about the cognitive ability of their opponent, which provides support for the emergence of a sophisticated strategic theory-of-mind.

Third, theory-of-mind and age strongly predict whether children respond to intentions in a gift-exchange game, while cognitive ability has no influence, suggesting that different measures of cognitive skill correspond to different cognitive processes in strategic situations that involve understanding intentions. Using the ALSPAC birth-cohort study, we find that childhood theory-of-mind and cognitive ability are both associated with enhanced adult social skills, higher educational participation, better educational attainment, and lower fertility in young adulthood. Finally, we provide evidence that school spending improves theory-of-mind in childhood.

Borrowing, Saving and Self Control

David Albrecht (Maastricht University)

Debt Aversion: Theory and Experiment

Attitudes towards borrowing and saving are crucial in understanding financial decision making. We propose a formal model incorporating debt attitudes as standalone domain of preferences, and use a novel experiment to jointly estimate debt attitudes with preferences over time, risk and losses.

Our experiment asks participants to accept or reject different real monetary debt and savings contracts. Their choices enable us to identify whether they systematically prefer savings over debt contracts, controlling for other relevant preferences. In particular, we employ maximum likelihood estimations to structurally estimate the preference parameters in our model both for the average decision maker as well as joint distributions of parameters in the population.

We find evidence for debt aversion on the aggregate as well as population distribution level, thus establishing debt aversion as preference in its own right, that cannot be explained by other relevant preferences such as loss aversion. Further, testing the relation of debt aversion and individual characteristics, we find that debt aversion is negatively associated with cognitive ability, and positively associated with participants’ savings.
Li King King (Shenzhen University)
*What Drives Excessive Borrowing and Under-Borrowing? A Field Experiment*

We investigate the determinants of excessive/under-borrowing. Our study differs from the literature by measuring excessive/under-borrowing, and estimating the effect of self-control, financial literacy, and misperception of interest rates, in addition to present bias. We observe both excessive borrowing and under-borrowing, with higher proportion of subjects exhibiting the latter. Subjects with better self-control are less likely to exhibit excessive borrowing, and are more likely to exhibit under-borrowing. It suggests that excessive (under-) borrowing can be due to over-estimation (under-estimation) of self-control. Subjects with better financial literacy are less likely to exhibit excessive borrowing. An additional level of better self-control leads to 10.34% lower borrowing interest rate in real-life. An additional level of better financial literacy leads to 3.44% lower interest rate. Borrowers exhibiting interest rate misperception pay about 11.49% higher interest rate. The findings on the role of financial literacy and misperception of interest rate suggest that excessive-borrowing is not merely a self-control problem, and it can be reduced through appropriate financial education.

Hakan Ozyilmaz (University of California Santa Barbara)
*The Debt Payment Puzzle: An Experimental Investigation*

This paper studies the sources of suboptimal allocations observed in credit card repayments using a diagnostic laboratory experiment. We find that optimization ability and limited attention are jointly insufficient to explain the puzzle. Moving beyond existing results, we find that the inherent negative frame of the debt payment problem interferes with subjects’ ability to optimize and hinders learning. We show that subjects predominantly rely on the irrelevant balance information while forming their decisions, regardless of how vividly the balance information is displayed. Using additional treatments, we find that the debt frame increases subjects’ focus on the irrelevant balance information.

Daniel Kamhöfer (Heinrich Heine University – DICE)
*Empirical Evidence on Sophistication about Self-Control*

This paper proposes a broadly applicable empirical approach to classify individuals as time-consistent, naïve, or sophisticated regarding their self-control capacity. Implementing it in nationally representative data, we find that self-control problems are pervasive and many individuals are at least partly aware of their self-control problems. Compared to naïfs, sophisticated individuals have a higher IQ, better educated mothers and are more likely to take up commitment devices. Importantly, sophistication fully compensates for having self-control problems in activities that yield immediate costs at later benefits. Raising people’s awareness of their own self-control problems may thus support them in overcoming their adverse consequences.

**Motivated Reasoning**

Max Lobeck (Paris School of Economics)
*Motivating Beliefs in a Just World*

This paper studies whether individuals distort their beliefs about the relative importance of effort and luck to motivate themselves to exert effort. To that end, I develop a novel experimental design where past experience of success or failure serves as a noisy signal about the true importance of effort in success. To test whether beliefs are distorted to motivate future effort, I vary the moment in time when subjects are informed about a real effort task to be performed later in the experiment. Subjects who receive the information before belief elicitation can, hence, distort beliefs to motivate effort in the later task. The results show that, in this case, individuals are more likely to believe that their effort is important for success. Motivating belief distortion is particularly pronounced for subjects who receive discouraging news about the true state of the world. I additionally test whether motivating belief distortion affects subjects’ willingness to distribute money between two other individuals as a third-party spectator. I do not find evidence that distributive behavior differs across the two treatment groups. The results of this paper advance our understanding of how individuals form luck-effort beliefs by showing that they do not only depend on past or current events but they are also endogenous to the incentive structure individuals expect to face.

Claire Rimbaud (University Lyon 2)
*Avoiding your conscience*

A large body of evidence shows that individuals care about the welfare of others. Yet, these apparently pro-social preferences have been shown to fade away in the presence of uncertainty about the relationship between actions and outcome. In contrast, little is known about this effect when uncertainty concerns others’ expectations. In this paper, we investigate whether individuals avoid the consequences of their stated belief-dependent preferences by
strategically seeking information in a self-serving way. To address this question, we developed a model of information acquisition from which we can derive testable hypotheses about the optimal strategy for different types of belief-(in)dependent preferences. We then test our main predictions in an online experiment with a modified trust-game. Our design allows us to (i) identify participants with belief-based preferences and (ii) investigate their information acquisition behavior. Consistent with our prediction, we find that most individuals classified as belief-dependent seek self-serving information to reduce the monetary cost of their belief-dependent preferences.

**Davide Pace** (University of Amsterdam)
*Fair Shares and Selective Attention*

Fairness views often serve to justify economic privilege. To understand the formation of such views, we experimentally investigate how subjects allocate their visual attention to the contributions of merit and luck in the generation of a surplus, and how they decide on its division. We find that subjects who randomly obtained an advantaged position pay less attention to information about true merit and retain more of the surplus. Both the attentional and behavioral patterns persist when dictators subsequently divide money between pairs of advantaged and disadvantaged subjects in the role of a benevolent judge. Moreover, attention has a large causal effect: forcing subjects to look for one second more at merit information relative to overall outcomes reduces the effect of having an advantaged position on allocations by about 25%. These findings suggest that attention-based policy interventions may be effective in reducing polarized views on inequality.

**Michael Thaler** (Princeton University)
*The “Fake News” Effect: Experimentally Identifying Motivated Reasoning Using Trust in News*

Motivated reasoning posits that people distort how they process new information in the direction of beliefs they find more attractive. This paper creates a novel experimental design to identify motivated reasoning from Bayesian updating when people enter into the experiment with endogenously different beliefs. It analyzes how subjects assess the veracity of information sources that tell them the median of their belief distribution is too high or too low. A Bayesian would infer nothing about the source veracity from this message, but a motivated reasoner would believe the source were more truthful when it reports the direction that he is more motivated to believe. Experimental results show novel evidence for politically-motivated reasoning about immigration, income mobility, crime, racial discrimination, gender, climate change, gun laws, and the performance of other subjects. Motivated reasoning from messages on these topics leads people’s beliefs to become more polarized and less accurate, even though the messages are uninformative.

**Preferences and Social Choice**

**David Freeman** (Simon Fraser University)
*Revealing Choice Bracketing*

In a decision problem comprised of multiple choices, a person may fail to take into account the interdependencies between her choices. To understand how people make decisions in such problems, we design a novel experiment and revealed preference tests that determine how each subject brackets her choices. In separate portfolio allocation under risk, social allocation, and induced payoff function shopping experiments, we find that 40-43% of our subjects are consistent with narrow bracketing while only 0-15% are consistent with broad bracketing. Classifying subjects while adjusting for models’ predictive precision, 74% of subjects are best described by narrow bracketing, 13% by broad bracketing, and 6% by intermediate cases.

**Stefan Trautmann** (Heidelberg University)
*Preferences for Precautionary Redistribution?*

We report the result of the first measurement of attitudes toward risk attitude in a social context and inequality attitudes in a risky context, for both gains and losses, in a large representative population sample. These measurements are of theoretical importance in welfare economics. We relate our attitude measurements to respondents’ distribution behavior with and without background risk in a separate allocation task. Respondents exhibit social risk aversion, inequality aversion and social risk prudence, while inequality prudence is not a predominant attitude. We find that the attitude measures have predictive power for behavior in the allocation task. Although we find strong support for preference for equality, we find no evidence for precautionary redistribution in the presence of background risk.
Jan Hausfeld (University of Amsterdam)
*Redistribution beyond equality and status quo – heterogeneous societies in the lab*

Selfishness and fairness are important drivers of redistribution, but recently an additional motive got into focus. In heterogeneous societies, ingroup preferences can be an important determinant of redistribution decisions. In a laboratory experiment, we investigate the relative importance of different motives while we remove selfishness as a motive. We create heterogeneity by providing subjects with information about a social group of recipients (political orientation, nationality or random), we manipulate how initial inequality is generated (earned, arbitrary or unfair) and the shape of the distribution. Further, we extend the redistribution mechanism to go beyond the usually applied limits of status quo and equality. We find ingroup favoritism to be the strongest motive; decision-makers use extreme forms of redistribution almost exclusively to favor members of their own social group. We complement the behavioral data with eye-tracking data, showing that attention to the social group information and to poor outliers are indicative of redistribution.

Sandro Ambuehl (University of Zurich)
*The Will of the People - How do Individuals Aggregate Ordinal Preferences?*

Famous impossibility results (Arrow, 1950, Sen, 1970) show that there is no single best rule for aggregating ordinal preferences. Yet, in domains ranging from political economy to market design, preference aggregation problems abound, raising the question of how individuals believe normatively appealing aggregation should occur. In our experiment, individuals in the role of Social Architects make a choice for a group they are not part of, knowing only group members’ ordinal preferences over the alternatives, in two contexts: assigning tasks to workers, and donating money to a political party. We find that the vast majority of Social Architects aggregate ordinal preferences like utilitarians, after imputing cardinal utility information from ordinal rankings. Subjects find little normative appeal in the celebrated Condorcet pairwise majority rule and in any other procedures that require ignoring information about preference intensity. Multi-stage procedures, which are frequently used in practice, also find vanishing empirical support. Using a clustering method, we show that subjects do not systematically employ any aggregation procedure outside the set of rules we consider. Our results also fill a gap in the literature on other-regarding preferences which exclusively considers cardinally comparable outcomes.

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**Parallel Sessions**
**17:20-18:40**

**Bargaining and Competition**

Helena Fornwagner (University of Regensburg)
*Predictably Competitive: What Faces Can Tell Us About Competitive Behavior*

Competition for limited resources is ubiquitous in social and economic life and has sparked a large body of research on the determinants of competitive behavior. While we know a lot about the role of contextual factors and personality traits, no link has been established between competitive behavior and physical appearance. In this study, we document a strong positive association between attractiveness, measured through ratings of headshots from experimental participants, and the competitive behavior of female participants in the form of opting for a tournament payment scheme in a real-effort task. We also show that individuals are better than chance at predicting the competitiveness of experimental participants, just by looking at participants’ headshots. These findings significantly advance our understanding of the factors that underlie competitive attitudes and of the role of observable physical characteristics as telltale signs of behavior.

Arkady Konovalov (University of Zurich)
*Decision Times Reveal Private Information in Strategic Settings: Evidence from Bargaining Experiments*

People naturally respond quickly when they have a clear preference and slowly when they are close to indifference. The question is whether others exploit this tendency to infer private information. In two-stage bargaining experiments, we observe that the speed with which buyers reject sellers’ first-stage offers decreases with the size of the immediate foregone surplus. This should allow sellers to infer buyers’ values from observable response times (RT), creating an incentive for buyers to manipulate their RT. We identify distinct conditions under which subjects do, and do not, exhibit such strategic behavior. These results provide the first insight into the possible use of RT as a strategic variable.
**Nina Serdarevic** (University of Bergen)

*Him or her? Choosing competition on behalf of someone else*

We extend the literature on competitive behaviour by investigating environments in which the choice to compete is not made by an individual themselves, but by someone else. Choosing on behalf of others is an integral part of life and gender may be an important factor in shaping the perceived suitability of individuals for career promotions in competitive environments. We assign subjects either the role of an agent or a principal in an experiment. Agents perform a real effort task and a randomly assigned principal chooses whether the agent performs under a piece rate or tournament incentive scheme. Before making a decision for the agent, we vary whether the principal is informed about the agent’s gender or not. Regardless of whether gender is revealed, we find no gender gap in competitiveness when principals are choosing for agents. In terms of determinants of the principals’ choices, we observe that expectations about their agent’s performance, as well as the principal’s own preferences for risk and competitiveness matter for the decision to make others compete. In addition, we replicate existing results reporting that women are less willing to enter the tournament than men when choosing themselves. We compare both decision environments and show that efficiency (defined as average performance and earnings) does not suffer, whereas the winners’ performance is lower when principals decide for agents. Taken together, our results suggest that allowing others to decide has the potential to increase the representation of women in competitive situations, many of which resemble the labour market.

**Simon Siegenthaler** (University of Texas at Dallas)

*Timing of Commitment in Coalitional Bargaining*

The power to influence the allocation of resources in coalitional bargaining stems from an agent’s ability to form multiple majority coalitions (pivotality) or from the relative vote share the agent contributes to it (proportionality). We show that which source of bargaining power dominates depends on the timing of commitment. We distinguish between coalitional commitment, where parties form a coalition while deferring distributive bargaining to a subsequent game, and allocative commitment, where allocations are determined at the point of coalition formation. We show that proportionality is key when coalitional commitment is available prior to allocative commitment, but pivotality is key when there is no difference in timing between the two types of commitment. This result is established theoretically by incorporating beliefs into the stable set and supported empirically based on data from a laboratory experiment.

**Markets I**

**Ayse Gul Mermer** (University of Amsterdam)

*Does Communication Help Early Adoption of Innovation?*

Innovation is at the core of growth and welfare, while a compelling empirical finding is that firms tend to take up innovative technologies at a slower pace than the technological progress justifies. One potential channel resulting in delays in adoption is the free-riding incentives in competitive environments. We investigate whether communication could serve as an instrument to combat this market failure. To do so, we employ a model in which players are deciding when to make risky investments. The lessons from these investments are public goods while the firm making the earliest investment is paying the irreversible cost of investment. We theoretically find that introducing communication leads to earlier investment times, and increasing the number of firms results in delays in equilibrium. In a laboratory experiment, we explore the effect of communication on adoption times and find that, on average, the delay of adoption is significantly lower when there are there 2 firms, while insignificantly so when there are 4 firms. We report that, when there are 4 firms, communication takes place in the majority of cases helping subjects to coordinate on early adoptions at the first half of our experiment, while it fails to do so as subjects get experienced, sweeping away the beneficial effect of communication at the aggregate level. We further find that, when there are 2 firms, communication takes place only half of the time, and opting for communication is used as a signaling mechanism to coordinate on asymmetric equilibrium.

**Muhammed Bulutay** (Berlin School of Economics, TU Berlin)

*Imperfect Tacit Collusion and Asymmetric Price Transmission*

We investigate the role tacit collusion plays in Asymmetric Price Transmission (APT), the tendency of prices to respond more rapidly to positive than to negative cost shocks. Using a laboratory experiment that isolates the effects of tacit collusion, we observe APT pricing behavior in markets with 3, 4, 6, and 10 sellers, but not in duopolies. Furthermore, we find that sellers accurately forecast others’ prices, but nevertheless consistently set their own prices above the profit-maximizing response, particularly in the periods immediately following negative shocks. Overall, our findings support theories in which tacit collusion plays a central role in APT.
Bouke Klein Teeselink (Yale University)
*Discounts Shift the Demand Curve for Life-Saving Medications*

Pharmaceutical pricing in the United States varies, and patients often do not know the out-of-pocket costs of their medications until arriving at the pharmacy to retrieve their prescriptions. In recent years, these pharmacy-counter interactions have seen the introduction of copay cards: manufacturer-issued coupons that are sent directly to pharmacies, physicians, and patients to reduce patient out-of-pocket costs. We exploit a unique data set containing transactions from ∼85 percent of all US pharmacies to estimate the causal effect of copay card discounts on pick-up rates of life-saving medications. Holding actual final price constant, we find that the presence of copay cards increases pick-up rates, providing evidence that discounts shift the demand curve itself.

Marco Lambrecht (Hanken School of Economics)
*Does mining fuel bubbles? An experimental study on cryptocurrency markets*

The massive price bubbles of decentralized cryptocurrencies, such as Bitcoin, have created a puzzle for economists. How can a non-revenue-generating asset exhibit such extreme price dynamics, forming multiple episodes of bubbles and crashes since its creation? The answer is not straightforward, since cryptocurrencies differ in several important aspects from other conventional assets. In this paper, we investigate how costly mining, a defining feature of the majority of cryptocurrencies, affects pricing. In a controlled laboratory experiment, we observe that the formation of price bubbles can be causally attributed to costly mining. Moreover, bubbles are more pronounced if the mining capacity is centralized to a small group of individuals. Analysis of the order book data reveals that miners seem to play a crucial role in bubble formation. The results demonstrate that high price volatility is an inherent feature of cryptocurrencies based on a mining protocol, which seriously limits any prospects for such assets truly becoming a medium of exchange.

Cooperation

Moumita Roy (George Mason University)
*Identity, Leadership and Cooperation: An experimental analysis*

Effective leaders promote cooperation among their followers. Although many studies have focused on approaches to effective leadership, none have studied how social identity (both the leader’s and the group’s impact a leader’s effectiveness. Here, we report data from leader-follower games where the leader may or may not share a social identity with the rest of the group. Our main finding is that ingroup leaders are more effective than outgroup leaders. In particular, ingroup leaders are more likely to suggest greater cooperation among followers, and their suggestions are more likely to be followed. These findings provide evidence of an important challenge to achieving the well-documented organizational benefits that stem from a diverse and inclusive workplace.

Anujit Chakraborty (University of California, Davis)
*Motives behind cooperation in finitely repeated prisoner's dilemma*

Selfish preferences cannot explain the high cooperation-levels observed in Finitely Repeated Prisoner’s Dilemma. This paper deploys a novel experiment to compare four theories that explain both selfish and nonselfish cooperation. The four theories capture incomplete information (“a la Kreps et al. [1982]) alongside the following four non-selfish motives: caring about others (Altruism), being conscientious about cooperation (Duty), enjoying social-efficiency (Efficiency-Seeking), and reciprocity (Sequential Reciprocity). Our experimental design varies the decline-rate of future rewards, under which these theories make contrasting predictions. We find that Efficiency-Seeking fits the experimental data best.

Andis Sofianos (University of Heidelberg)
*Intelligence Disclosure in Repeated Interactions*

We investigate how revealing information on intelligence affects behavior in games with repeated interactions. In our experimental design we reveal the cognitive abilities of pairs of players in three different games and investigate how this information affects behavior. In the Prisoners’ Dilemma, disclosure hampers cooperation in the early stages, where higher intelligence players try to obtain the higher temptation payoff by defecting. Similarly, in the Battle of Sexes with low payoff inequality, disclosure disrupts coordination. In this case higher intelligence players try to force their most preferred outcome onto the less intelligent. However, in the Battle of Sexes with high payoff inequality, this pattern of behavior dramatically changes and disclosure does not significantly affect the coordination rates. Conversely to the low inequality case, we find that coordination is achieved more often on outcomes that favor less intelligent players. We conjecture that when coordination becomes more difficult because
of the high inequality between payoffs, the higher intelligence subjects tend to forgo their preferred choice more often to foster coordination.

**David Gill** (Purdue University)

*Beliefs, learning and personality in the indefinitely repeated prisoner’s dilemma*

The indefinitely repeated prisoner’s dilemma (IRPD) captures the trade-off between the short-term payoff from exploiting economic partners and the long-term gain from building successful relationships. We aim to understand how people form and use beliefs about others in the IRPD. To do so, we elicit beliefs about the supergame strategies chosen by others. We find that heterogeneity in beliefs and changes in beliefs with experience are central to understanding behavior and learning in the IRPD. Beliefs strongly predict cooperation, initial outcome. We argue that these findings are important for many real environments. This paper provides new evidence that subjects do update beliefs and take expertise from experience, which helps to explain how trust underpins successful economic exchanges.

**Mechanisms and Incentives**

**Victor González-Jiménez** (University of Vienna)

*Optimal incentives without expected utility*

This paper investigates the optimal design of incentives when agents distort probabilities, disregarding expected utility theory as an adequate representation of preference. We show that the type of probability distortion displayed by the agent and its degree determine whether an incentive-compatible contract can be implemented, the strength of the incentives included in the optimal contract, and the location of incentives on the output space. Our framework demonstrates that incorporating descriptively valid theories of risk in a principal-agent setting leads to incentive contracts that are typically observed in practice such as salaries, lump-sum bonuses, and high-performance commissions.

**Menglong (Vincent) Guan** (University of California Santa Barbara)

*Trustworthy by Design*

We explore theoretically and experimentally whether information design can be used by trustees as a signaling device to boost trusting acts in once-off interactions. In our main setting, a trustee partially or fully decides a binary payoff allocation and designs information structure, then a trustor decides whether to invest. In the control setting, information design is not available. Both the equilibrium model and a model of heterogeneity in prosociality and strategic sophistication predict that introducing information design increases trustworthiness and trusting acts. The second model also generates a distinctive prediction: Whether trustees optimally choose full trustworthiness with the most informative structure or zero trustworthiness with the least informative structure depends on trustees’ anticipation of the association between trustworthiness and informativeness. The observed treatment effects are in line with both models’ predictions, and the observed behavioral patterns are better explained by the second model.

**Hendrik Hüning** (Hamburg University)

*Can Deliberation Change Opinions and Votes? Experimental Evidence from a Rent Control Ballot Measure*

We test a fundamental assumption underlying the literature on information aggregation and deliberation: that people update their beliefs when listening to peers, factoring in expertise. We investigate whether this assumption holds in online deliberation among strangers prior to a ballot on rent control. In a two-wave survey experiment, we collected voting intentions and textual data from chat interactions before the ballot and self-reported votes after the ballot. The study design randomly assigns chat-group compositions. Using NLP and ML techniques, we find that subjects do update beliefs and take expertise into account: increased use of arguments induces opinion change from pro to contra rent control. However, the more chat partners share a subject’s standpoint, the less likely this subject becomes to change opinion, regardless of argument use.

**Amnon Maltz** (University of Haifa)

*Context Effects in Strategic Environments*

Context effects have been studied extensively in consumer choice but little is known about their impact in strategic environments. This paper provides new evidence that adding irrelevant strategies,” such as a dominated action or one that is completely identical to an existing strategy, has significant impact on players’ actions and the game’s outcome. We argue that these findings are important for many real-life strategic interactions. The article
experimentally examines three context effects in a simple setting of two-player simultaneous-move games: the attraction effect, the compromise effect and what we dub as the duplicate effect (the effect of adding a dominated strategy, an extreme strategy and an identical strategy, respectively). We ask whether players whose choice set is extended alter their preferences over the unchanged alternatives and do the opponents anticipate this behavioral bias. Within the realm of coordination games, we find positive answers in the case of the attraction and duplicate effects. More generally, we suggest that an (irrelevant) added strategy may serve as a coordination device. The compromise effect is not found although it does seem to be anticipated. In games in which one player has a dominated strategy, the effects generally disappear.

**Keynote Presentation**

18:55-19:40

Dan Friedman (University of California Santa Cruz, University of Essex)

*On the empirical relevance of correlated equilibrium*

Can an interesting correlated equilibrium emerge without some exogenous benevolent agent providing coordinating signals? Theoretical work of Hart and Mas-Colell suggests a positive answer, which we test in a laboratory experiment. In the well-known Chicken game, we observe time average play that is close to the asymmetric pure Nash equilibrium in some treatments, and in other treatments we observe collusive play. In a game resembling rock-paper-scissors or matching pennies, we observe time average play close to a correlated equilibrium that is more efficient than the unique Nash equilibrium. Estimates and simulations of adaptive dynamics capture much of the observed regularities.
Tuesday, 8 June 2021

Keynote Presentation
12:20-13:05

Gerhard Fehr (CEO & Executive Behavioral Designer, FehrAdvice & Partners AG)

It is all about Public Goods – A Behavioral Economics View of a Better Society Through Experiments

01 Increasing Vaccination Rates
Vaccination could lead us out of this pandemic very quickly and smoothly. But is it likely to do so? Which are arguments in favor or against this? What measures can lead to achieve herd immunity soon? Currently, hardly any topic divides society more than the (un-)willingness to be vaccinated. Looking at people’s general willingness to be vaccinated, at the moment, we see two distinct populations facing each other with almost no intersection: People who are (more or less) willing to be vaccinated. And people who completely refuse vaccination for a variety of reasons. Behavioral insights can help to understand and solve this greatest global challenge of the present time: e.g. small risks are usually extremely overestimated. How can nudging help here and where do we need stronger measures?

02 Achieving Environmental Sustainability
Aspects of sustainability are now part of every decision that managers, politicians and consumers in society have to make. But is environmental sustainability truly anchored in their preferences? Values only have meaning and achieve additional value if there is a willingness to pay for them. If we particularly look at Generation Y and the changing market and labor market conditions, we see a dissonance in the behavior of this young generation: on the one hand we talk about Fridays for Future, on the other hand young people fly and travel more than older generations. What insights from behavioral economics can help understand this behavior? Which measures can be implemented to solve problems of principle sustainability when looking at the future?

03 Reforming Institutions
Which are the reasons why institutions do not change and reform on their own? Institutions are essential for ensuring the provision of public goods that are necessary for society. Good institutions are fair, efficient and deliver the right public goods. However, change from within does not usually come naturally. Feedback mechanisms are one way to bring about such change. Companies react to changing conditions which threaten their economic viability. But why do other institutions are unaware of the importance to reform themselves? Which tools and behavioral economic insights can support the self-reformation of institutions? How do institutions themselves influence people’s risk preferences, and what does this have to do with the risk capacity of institutions?

Practitioner Sessions
13:20-14:50

Practitioner Session 1

Thomas Dirkmaat (Netherlands Ministry of Economic Affairs and Climate Policy)

Behavioural Insights Team EZK: Looking back and forward

In this talk Thomas Dirkmaat, the coordinator of the Behavioural Insights Team from the ministry of Economic Affairs and Climate Policy, will talk about the research his team has been doing in the last couple of years and the direction the team would like to take in the coming years.

Peter Dijkstra (Netherlands Authority for Consumers and Markets)

Integrating norms, knowledge and social ties into the deterrence model of cartels: A survey study of business executives

We expand the rational choice model of crime, as applied to cartels, with three psychological factors (personal norms, social norms and social ties) and knowledge of competition law. Through a survey of Dutch businesses we find that adding psychological factors substantially increases the explanatory power of the model: all predict intention to show cartel behaviour, with personal norms as the strongest (negative) predictor. Our results also show poor knowledge of competition law, an important predictor of both deterrence and norms towards collusion. We conclude that psychological factors and knowledge of the law are necessary to understand and prevent cartel behaviour.

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Mariana Baggio (European Commission Joint Research Centre (JRC))

The evolution of behaviourally informed policy-making in the EU

In the past decade, policy-making around the world has increased its attention to behavioural insights (BI). The European Commission (EC) identified this trend early on and has incorporated BI to its policy-making over several years. This presentation illustrates the evolution of BI thinking inside the EC, describes how BI are introduced in the policy cycle, and explores future challenges to and opportunities for mainstreaming BI at every level and stage of policy-making in the EU.

Practitioner Session 2

Matthew Blakstad (NEST corporation)

Building on behavioural policy – How can we optimise outcomes for participants in a national auto enrolment scheme?

The UK’s policy of automatic enrolment into pensions began in 2012. It is one of the largest behavioural policy interventions ever implemented, and it remains a fertile context for behavioural research. The Nest Insight unit is based at Nest, the government-backed pension provider that manages the auto-enrolment pension assets of ten million UK workers, based at 800,000 employers. The unit evaluates the ongoing impacts of the auto-enrolment policy, and tests a range of other behavioural interventions, with the overall aim of improving retirement outcomes for low to middle income workers. In this presentation, Matthew Blakstad, Analysis Director for Nest Insight, will summarise the unit’s findings to date, including the impacts of the Covid-19 pandemic on the default enrolment policy, the role of short-term liquid savings in a retirement savings policy, and the wider implications for behavioural policy-making.

James Drummond (Organisation for Economic Co-operation and Development (OECD))

Behavioural insights and organisational behaviour: Lessons from regulatory policy

For over a decade, governments have been applying lessons from the behavioural sciences to improve policy making. Commonly known as behavioural insights (BI), these lessons have helped government tackle policy problems across a myriad of sectors. OECD research suggests that the majority of these applications have been at the implementation phase of policy making, often to improving non behaviourally-informed policy and with a focus on individual outcomes. In the field of economic regulation, individual outcomes are important but so too are those of businesses and organisations, including government entities involved in regulating the sectors. This presentation will provide an overview of OECD work, ongoing since 2017, on applying BI to changing organisational behaviour that looks at entities in the regulated sectors and within government. It will focus on experiments conducted on fostering elements of safety culture in the energy sector in Canada, Ireland, Mexico and Oman, and conclude with lessons learned for policy making.

Paul Adams (Behavioural Science Consultant)

Nudging credit card debt: evidence from field trials

Credit card debt is persistent and costly. In the UK many people repay only the contractual minimum, even though they may have sufficient funds to repay more, leading to long repayment times and high interest costs. In a set of complementary field trials we try to shift these repayment patterns using behaviourally informed reminders as well as changes to choice architecture. My talk summarises the results of these field trials and what we learned about the efficacy and evaluation of nudge style interventions.

Sili Zhang (University of Zurich)

What Money Can Buy: How Market Exchange Promotes Values

Using a survey, a laboratory experiment and an online experiment, we study consumers’ preference for exchanging with counterparts whose behavior expresses support for the consumers’ values. We also investigate the impact of
such preferences on the relationship between market exchange and social behavior. We document two related phenomena. First, consumers prefer exchanging and are willing to pay more to exchange with counterparts whose actions are congruent with the consumers’ values. This is true even when the consumers’ purchasing decisions have no instrumental impact on the promotion of those values. Second, when sellers anticipate the possibility of exchanging with such consumers, they change their behavior to reflect greater support for consumers’ values. Our findings thus provide evidence that the exchange of products with no inherent social or moral characteristics may be influenced by concern for the value positions attributed to counterparts. We also document a channel through which market exchange leads to the adoption and promotion of certain values.

Andreas Ziegler (University of Amsterdam)

**Morals in multi-unit markets**

We examine how the erosion of morals in markets depends on the market power of individual traders. Previously studied single-unit markets provide market power to individual traders by limiting the roles of two forces: (i) the replacement logic, whereby immoral trading is justified by the belief that others would trade otherwise; (ii) market selection, by which the least moral trader determines quantities. In an experiment, we compare single-unit to (more common) multi-unit markets which may activate these forces. We find that, in contrast to single-unit markets, multi-unit markets show full erosion of morals. Especially the replacement logic drives this finding. In addition, we find that (i) market experience leads to biased social learning, whereby subjects believe that others are less moral than they actually are; (ii) erosion of morals persists partially after multi-unit markets; (iii) changes in social norms are not driving these results.

Romain Gauriot (New York University, Abu Dhabi)

**How Market Prices React to Information: Evidence from a Natural Experiment**

We study the efficiency of market prices’ reaction to information shocks. We use a natural experiment setting on binary option markets: we compare the evolution of market prices in situations where the occurrence or not of information shocks depends on knife-edge situations and where shocks can be considered as good as random. We find that most of the time, prices react surprisingly efficiently to information shocks with no evidence of abnormal average returns. We nonetheless find evidence of under-reaction in specific situations where information shocks are large.

Topi Miettinen (Hanken School of Economics)

**The role of reporting institutions and image motivation in tax evasion and incidence**

We study effects of tax reporting mechanisms on evasion and incidence in experimental double auction markets where counterfactual reporting and market outcomes are observed after convergence. We compare markets without taxes to cases where (i) taxes are automatically levied, (ii) taxes are based on seller reports and fines paid in case low probability audit discovers evasion, or (iii) there is reporting by both the buyers and the sellers, and the audit probability is increasing in the gap between the units reported by the units reported by the seller and her customers. The latter mimics the so called third-party reporting in tax enforcement. We find that about half the sellers fully evade when only sellers report, but that 80% report truthfully under third-party reporting. Moreover, in the treatment with evasion, prices do not fully reflect the lower costs of evaders. Therefore tax incidence does not conform with predictions of the standard model, but is instead heavily distorted towards the buyers, unlike in other treatments where the standard model predicts incidence quite well. Pricing, incidence and reporting patterns in all treatments can be explained by a model of lying with image concerns based on Gneezy et al. (2018).

**Financial Decision-Making and Pensions**

Abigail Hurwitz (The Hebrew University of Jerusalem)

**Enhancing Longevity Awareness to Improve Retirement Security**

Many people have only a vague idea about what life expectancy and longevity risk mean, which may lead them to save suboptimally for retirement or to not purchase longevity insurance. This paper employs an online experiment using vignettes to investigate alternative ways of describing both life expectancy and longevity risk, to assess whether these can raise peoples’ awareness of possible retirement shortfalls. We show that merely prompting people to think about financial decisions changes their perceptions regarding subjective survival probabilities. Moreover, providing this information boosts respondents’ interest in saving and demand for longevity insurance. Additional evidence from a field experiment shows that life expectancy information also promotes peoples’ interest in obtaining advice about long-term saving products.
Pim Koopmans (Leiden University)
The Demand for Simple and Flexible Retirement Products

Many people save too little for retirement. This paper studies – using a stated choice experiment – whether simplicity and flexibility can increase the demand for retirement products. We compare the willingness-to-pay (WTP) for self-employed workers and employees, and find that the self-employed are willing to give up 8% of post-retirement benefit in order to avoid having to provide information about their financial situation. In addition, self-employed workers are willing to give up 14% in order to have the option to withdraw money in case of low income or for mortgage payments. Employees are willing to give up roughly 4% for such flexible options. Our findings imply that providing more flexible and simple retirement products likely increases pension contributions through annuities, especially for the self-employed.

Björn Bos (University of Hamburg)
Portfolio Choice under Pandemic Uncertainty

We study how background health uncertainty induced by pandemic prevalence affects individual portfolio choice. In an online panel survey including an incentivized portfolio investment task, we repeatedly elicit financial risk taking behavior of more than 5,000 participants, sampled from the German population. We exploit exogenous variation in the number of SARS-CoV-2 infections and deaths across time and space, and show with a fixed effects estimation that the local COVID-19 prevalence has a negative effect on risk taking. We find that an increase in the local number of infected persons per 100,000 residents by 1 percent decreases investments in a risky asset by 0.03 percent on average. Given the substantial pandemic dynamics, this can explain sizable shifts in portfolio choices, a large portion of which appears to be driven by fear. Our results point towards an important role of background health uncertainty for financial risk taking and portfolio choice.

Holly Dykstra (Harvard University)
Patience Across the Payday Cycle

Individuals often behave impatiently when making financial decisions, which can have long-term economic consequences. This paper proposes and tests that the timing of decisions relative to payday—which leads to strong cyclical fluctuations in liquidity for many individuals—influences the level of patience they have. In a large pre-registered online experiment, I ask participants to adopt a commitment device that binds them to being patient. Participants who make this decision eight days before their payday, rather than one day after payday, are 38% more likely to take up commitment. This is consistent with a mechanism where projection-biased agents have self-control problems. By documenting the importance of the timing of financial decisions relative to payday, this paper offers a new policy tool and deepens our understanding of why impatient decisions persist.

Environmental Economics

Alice Soldà (Heidelberg University)
Competitive vs. Random Audit Mechanisms in Environmental Regulation: Emissions, Self-Reporting, and the Role of Peer Information

In a simplifying analytical framework with endogenous levels of actual and self-reported emissions, we consolidate the existing literature into three main hypotheses about the relative merits, for a resource-constrained regulator, of random (RAM) and competitive (CAM) audit mechanisms in the presence or absence of peer information about actual emissions. Testing the three hypotheses in a quasi-laboratory experiment (N = 131), we find supportive evidence that CAM always induce more truthful reporting than RAM. Moreover, we provide the empirical validation of the theoretical prediction that CAM can succeed in aligning actual emissions more closely with the social optimum in the presence of peer information when RAM cannot. Behavioral mechanisms prevent reaching the first-best outcome.

Heike Hennig-Schmidt (University of Bonn)
Sanctions and international interaction improve cooperation to avert climate change

Imposing sanctions on noncompliant parties to international agreements is often advocated as a remedy for international cooperation failure, notably in climate agreements. We provide an experimental test of this conjecture in a collective-risk social dilemma simulating the effort to avoid catastrophic climate change. As in previous studies, German participants’ cooperation is higher than Russian participants’ cooperation when groups interact nationally and sanctioning is available. However, in international interaction Russian cooperation increases significantly in comparison with national cooperation and converges to German participants’ cooperation. While the increase is only marginally significant without sanctions, it becomes considerable when sanctions are imposed, even if
sanctions reduce final payoffs. Our study supports the idea that international interaction supported by sanctions is beneficial for cooperation in situations of collective risk.

**Manuel Grieder** (ZHAW School of Management and Law)
*The Behavioral Effects of Carbon Taxes – Experimental Evidence*

Carbon taxes are a prominent policy instrument for decreasing the consumption of CO2-intensive goods in order to reduce the negative external effects involved in the production or consumption of such goods. A tax leads to higher consumer prices, which typically lowers consumption. In this paper we provide evidence from laboratory experiments showing that for directly lowering consumption, carbon taxes may be less effective than assumed because of unintended behavioral effects. Especially earmarking the revenues of a carbon tax for environmental purposes—a practice that is popular with voters and policy makers—can crowd out consumers’ intrinsic motivation to avoid negative externalities. If this is the case, a carbon tax not only increases consumer prices but also raises consumers’ willingness to pay for the taxed good, thus partly offsetting the price effect and lowering the consumption-reducing effect of the tax.

**Katharina Momsen** (University of Innsbruck)
*Expressive Voting vs. Self-Serving Ignorance*

We theoretically and experimentally investigate the effect of self-serving information avoidance on moral bias in democratic and individual decisions in the context of climate change mitigation. Subjects choose between two allocations that differ in payoffs and contributions to carbon offsets. We vary the observability of the offset contribution, as well as the decision context associated with different levels of pivotality. If the contribution is directly observable, we find evidence for lower pivotality leading to higher levels of ‘green’ decisions, as predicted by the low-cost theory of voting. This effect disappears if subjects can avoid information on the contribution. Instead, we find evidence for the exploitation of moral wiggle room via information avoidance with voting in larger groups as well as in the consumption context. Our results indicate that information avoidance substitutes expressive voting as an instrument to manage cognitive dissonance on the part of the voter. Hence, moral biases in elections might be less likely than previously thought.

**Discrimination**

**Janis Cloos** (Technische Universität Clausthal)
*Editorial Favoritism in the Field of Laboratory Experimental Economics*

We examine scientific quality and editorial favoritism in the field of experimental economics. We use a novel data set containing all original research papers ($N = 569$) that exclusively used laboratory experiments for data generation and were published in the American Economic Review (AER), Experimental Economics (EE), or the Journal of the European Economic Association (JEEA) between 1998 and 2018. Several proxies for scientific quality indicate that experiments conducted in Europe are of higher quality than experiments conducted in the US: European experiments rely on larger numbers of participants as well as participants per treatment and receive more citations. For the AER and the JEEA, but not for EE, we find that papers authored by economists with social ties to the editors receive significantly fewer citations in the years following publication. Detailed analyses using a novel dynamic and continuous measure of the co-authorship distance between editors and authors imply that authors at longer distances to editors have to write papers of higher quality in order to get published in the AER and the JEEA. We find no evidence that this ‘uphill battle’ is associated with geographical distance.

**Darya Korlyakova** (CERGE-EI)
*Learning about Ethnic Discrimination from Different Information Sources*

We experimentally study whether public beliefs about ethnic discrimination, an emotionally loaded issue, are shifted more by information from experts or from ordinary people. We also examine whether people are inclined to choose the most influential sources. For this purpose, we combine, in a novel design, the random provision of information from different sources with endogenous information acquisition from the same sources. We find that individuals update their beliefs most in response to information from experts, namely researchers studying ethnic minorities and human resource managers. Exogenous adjustments in beliefs do not induce changes in attitudes to ethnic minorities. Consistent with the strength of belief updating, more individuals choose information from experts over information from ordinary people. This result suggests that, in the aggregate, people behave rationally as they favor a source that is perceived to be relatively accurate. The findings have implications for information dissemination policies.
Maivand Sarin (University of Cologne)
In Your Name! The Effect of Intermediaries on Discrimination

Literature within economics has shown a change in behavior when people decide for others compared to a situation where they decide for themselves. In this project, the effect of intermediaries, defined as decision-makers who act on behalf of others, on discrimination is investigated. A novel incentivized discrete choice experiment is employed. Decision-makers choose from a list of candidates with either typical western or typical middle-eastern first names. The study finds that while, on average, there is no discrimination when decision-makers decide for themselves, significant discrimination emerges when they act on behalf of another person and have an incentive to match the other’s choice. The study further shows that this finding can neither be fully explained by a preference for discrimination nor by the traditional notion of statistical discrimination based on beliefs over candidates’ performance. Instead, the study finds strong evidence that inaccurate beliefs about others’ discriminatory behavior drive the effect. Thus, from a general perspective, the study contributes to long-standing literature that is in the search for reasons why people discriminate.

Jan Potters (Tilburg University)
A cooperative experience with ethnic minorities reduces discrimination

Can a brief personal interaction with someone with an ethnic minority background reduce ethnic discrimination? We ran a natural field experiment with Dutch high-school students who were randomly assigned to an ethnically homogeneous or mixed team to perform a cooperative task. One month later, we tested for ethnic discrimination using behavioral games with monetary consequences. We find that the mixed-team intervention removed discrimination among students who have no minority peers in their regular classes. For students exposed to minority peers on a daily basis we find no effects, but they showed no evidence of discrimination in the first place.

Practitioner Sessions
16:25-17:40

Practitioner Session 1

Elena Altieri (World Health Organization)
Setting up a behavioral science workstream at WHO: opportunities and challenges

In March 2020 WHO started incubating a new initiative to mainstream behavioural science within the organization. While it is still early to talk about results and concrete behaviours changed, in the last 12 months the team made important learnings in relation to where and how behavioural science can be applied to help the organization achieve its impact: operating in a behaviourally informed way; buy in and an horizontal approach are essential.

Malte Petersen (Federal Chancellery Germany)
Applying Behavioural Insights in Policymaking – Experiences from the Field

Behavioural sciences have created a wide body of knowledge that helps us better understand human behaviour. Despite a growing body of examples that show how behavioural insights can contribute to significantly better policies the successful transfer of new research findings between science and policymaking is far from trivial: Scientific evidence is mostly produced in a long time-frame, under strictly controlled conditions and focused on very particular questions or target groups. Policymakers, in contrast, mostly work in short time-frames and have to design programs for contexts where boundary conditions cannot be controlled and target groups are as heterogeneous as entire multinational populations. Legal regulatory requirements, ethical considerations and the multi-stakeholder decision processes in democratic systems are additional points at play when creating new policies.

In this session I will summarize relevant experiences that I have made during five years in the field of applying behavioural insights to policymaking. I will discuss chances, challenges as well as future prospects that have emerged after behavioural sciences have established their role in policymaking.

Rachael Singleton (Department of Finance Northern Ireland)
Behavioural science: out of the lab and into our citizens’ homes

The Northern Ireland Innovation Lab was created 6 years ago to tackle difficult societal and policy issue, whose resolution continued to challenge and to evade more traditional approaches. Behavioural science remains relatively new, with its application proving novel, and sometimes foreign, to the existing system. Using examples Rachael Singleton will discuss how the Lab has evolved to develop trust in the process, to show the value of the contribution
and to explain how, both within government and within her own Doctoral research, the solution seems to lie in bringing behavioural science and design together.

Practitioner Session 2

Andreas Maaløe Jespersen (Danish Competition & Consumer Authority)

*From lab to field - pitfalls and possibilities*

Many companies use online competitions on social media platforms to get consumers’ consent to subsequent direct marketing. The Danish Competition and Consumer Authority has run a series of experiments in this setting to improve consumers’ understanding of the consent and the resulting marketing. These experiments demonstrate some of the perils of lab experiments and how field experiments are a strong source of insights for behavioural policy experimentation.

Peter de Smedt (Strategic Insights & Analysis Flanders, Chancellery and Foreign Affairs Belgium)

*A serious game approach for exploring behavioural insights*

You may know and have read about behavioural insights but find them difficult to use in your day-to-day work. Tackling real-life problems in a creative digital environment is the way to get through this challenging period. Our serious game exploration tool (eBIs) can deliver insights that help to bridge the implementation gap between understanding the problem and implementing human-centred interventions. Policy makers need to find ways to engage with experts and stakeholders differently. Most too often they tend to focus on a limited body of solutions that matches their pre-existing beliefs. Although the evidence behind the solutions may be fragmented and sometimes even misleading, if it resonates with their worldview, policy makers tend to implement it without much hesitation. We designed eBIs to create a safe digital environment for exploring and sharing human-centred interventions. The tool supports policy makers to engage in a creative processes including three steps: (1) exploring and reframing; (2) ideating and prototyping; and (3) developing a test plan and experimenting.

Parallel Sessions
17:55-19:15

Labor and Incentives

Katharina Brütt (University of Amsterdam)

*How teams can overcome free riding in strategic experimentation*

Experimentation is at the core of innovation. This project studies collaborative experimentation in teams. I focus on the inherent two-dimensional free-riding problem: Agents create a payoff as well as an informational externality, which both induce free riding. This theoretically results in inefficiently low experimentation. In particular, agents’ experimentation being observable decreases experimentation because of a discouragement effect through changes in beliefs. In a laboratory experiment, I study how distinct elements of the experimentation environment affect strategic experimentation. I vary (i) the observability of experimentation and (ii) whether agents work on joint or separate projects. Teams largely overcome the free-riding problem. Both observability of experimentation and experimenting jointly increase experimentation levels. There is no lack of sophistication in updating beliefs that drives this, neither do subjects disregard the effect their experimentation has on others. Instead, the data can be best explained by a combination of myopia and the salience of group membership.

Andrej Woerner (Ludwig Maximilian University of Munich)

*Should individuals choose their own incentives? – Evidence from a Mindfulness Meditation Intervention*

This paper theoretically and experimentally investigates the effects of letting people choose their own incentive schemes. We conduct a field experiment in which we pay participants monetary rewards for completing daily online mindfulness meditation sessions. While we randomly assign some participants to either a constant incentive scheme (monetary reward for every completed meditation session) or a streak incentive scheme (larger monetary reward for each completed series of three consecutive sessions), we allow other participants to choose between the two schemes. In contrast to our theoretical predictions, we find that participants who could choose their preferred incentive scheme complete significantly less meditation sessions than participants that were randomly assigned. We show that this result is not driven by poor selection as participants partially separate in accordance
with their expected meditation frequency, suggesting that letting people choose their own incentives may have a detrimental effect on their motivation.

Guglielmo Briscese (University of Chicago)
*Designing the market for job vacancies: A trust experiment with employment centers staff*

Trust is a key factor for the well-functioning of labor markets. We experimentally study the behavior of staff at competing employment agencies who serve as matchmakers between labor supply and demand. Employment agents can collaborate by sharing vacancies and job seekers at the risk of the other agent approaching the employer to place their own job seekers. In a framed field experiment with actual employment agents we test mechanisms to increase collaboration. We find that financial incentives to collaborate increase vacancy sharing but also increase the likelihood of the other provider approaching the employer to place their own job seekers. We also find that social incentives can backfire and decrease vacancy sharing unless employment agents have a perfect reputation. However, social incentives have a positive effect in increasing cooperative behavior. We discuss the implications for the design of incentives to increase trust in competitive markets like that of employment agencies.

Aleksandr Alekseev (University of Regensburg)
*The Economics of Babysitting a Robot*

I study the welfare effect of automation on workers in a setting where technology is complementary but imperfect. Using a modified task-based framework, I argue that imperfect complementary automation can impose non-pecuniary costs on workers via a behavioral channel. The theoretical model suggests that a critical factor determining the welfare effect of imperfect complementary automation is the automatability of the production process. I confirm the model's predictions in an experiment that elicits subjects' revealed preference for automation. Increasing automatability leads to a significant increase in the demand for automation. I explore additional drivers of the demand for automation using machine learning analysis and textual analysis of choice reasons. The analysis reveals that task enjoyment, performance, and cognitive flexibility are the most important predictors of subjects' choices. There is significant heterogeneity in how subjects evaluate imperfect complementary automation. I discuss the implications of my results for workers' welfare, technology adoption, and inequality.

**Social Preferences and Norms**

Robizon Khubulashvili (University of Pittsburgh)
*How the Visibility of Real-Effort Contribution Impacts Reciprocity*

Are we more generous the more we can see of how others have worked for our benefit? In our noisy gift-exchange game, recipients can perform a real-effort task to improve donors' lottery win probability. Donors observe the outcome of the lottery, then decide on their giving. Donors in the Numerical treatment see numerical measures of their recipient's effort, while those in the Visual treatment additionally see a 30-second video of the recipients performing the task. Echoing the outcome bias literature, the Numerical treatment showed that recipients' efforts are rewarded more generously when donors won the lottery. The Visual treatment corrects this asymmetry in rewarding effort but does not increase total giving. Post-experiment surveys suggest that this is because the video not only increases donors' familiarity with the recipients' work but also their perception that the task was not taxing, which decreases reciprocity.

Manu Muñoz-Herrera (NYU Abu Dhabi)
*The erosion of unity: How changes in social norms impact minority groups*

Individuals from minority groups may abandon their social norm to adopt that of the mainstream majority, when doing so promotes inter-group contact and economic mobility. However, minority individuals may persist on an inefficient norm if others in their social network oppose change by imposing barriers. In this paper, I study how changes in norms impact the economic position of minority groups focusing on the two most prominent barriers to norm change: social sanctions and pluralistic ignorance. I develop a theory to characterize equilibrium outcomes and find that despite the barrier faced, if the entire minority adopts the mainstream norm in unison and form network connections with the majority, efficiency is highest. But also, that a divided minority where some become mainstream and integrate and others oppose and segregate, is stable but inefficient. I test this experimentally and find that social sanctions are barriers that divide the minority and prevent economic mobility more often than pluralistic ignorance, despite the efficiency gains of acting in unison. I also test whether sharing a common norm improves attitudes across groups and find that minority members act less generously towards the majority the more divided the minority is. The majority, however, is unresponsive to the changes in norms of the minority.
Eugenio Verrin (CNRS - University of Lyon)
*Personal norms — and not only social norms — shape economic behavior*

While social norms have received great attention within economics, little is known about the role of personal norms. We propose a simple utility framework and design a novel two-part experiment to study their relevance across various economic games and settings. We show that personal norms — together with social norms and monetary payoff — are highly predictive of individuals’ behavior. Moreover, they are: i) distinct from social norms across a series of economic contexts, ii) robust to an exogenous increase in the salience of social norms, and iii) complementary to social norms in predicting behavior. Our findings support personal norms as a key driver of economic behavior.

Eugen Dimant (University of Pennsylvania)
*Hate Trumps Love: The Impact of Political Polarization on Social Preferences*

Political polarization has ruptured the fabric of U.S. society. The focus of this paper is to examine various layers of (non-)strategic decision-making that are plausibly affected by existing polarization. Through the lens of one's feelings of hate and love for Donald J. Trump, I document the behavioral-, belief-, and norm-based mechanisms by which perceptions of interpersonal closeness, altruism, and cooperativeness are affected, both within and between political factions. Using 5 pre-registered studies comprising 13 behavioral experiments and a diverse set of about 8,000 participants, I find strong heterogeneous effects: ingroup-love occurs in the perceptual domain (how close one feels towards others), whereas outgroup-hate occurs in the behavioral domain (how one helps/harms/cooperates with others). The rich setting also allows me to examine the mechanisms: the observed intergroup conflict can be attributed to one's grim expectations about the cooperativeness of the opposing faction, rather than one's actual unwillingness to cooperate. A final set of experiments reveals that two popular behavioral interventions (defaults and norm-nudging) alone are insufficient to eradicate the detrimental behavioral impact of polarization.

**Policy Design**

Deborah Kistler (ETH Zurich)
*Sludge or Nudge? Evidence from a Randomized Control Trial with SMEs in Switzerland*

In this paper we investigate how small but sludghish changes in the choice architecture of well-intended nudges undermines their effectiveness. We conduct a randomized field experiment within an existing governmental program to increase cost effective environmentally friendly practices in SMEs in Switzerland. Thereby, we slightly manipulate the process of receiving benefits to implement practices in the firm to study the robustness of nudges. We show that a sludge in the form of very moderate effort substantially undermines the effectiveness of the intervention. Our findings carry important implications for policymakers: Small but potentially sludghish changes in the choice architecture may render nudges less effective. When designing nudging interventions that should foster the implementation of environmental business practices by firms, policy makers have to pay attention to unintended frictions that may limit the full potential of the nudge.

Lanny Zrill (HEC Montréal)
*Default-Setting and Default Bias: Does the Choice Architect Matter?*

The presence of pre-selected default options has been shown to influence individual decision making in various contexts including the choice of health insurance and retirement contributions. Even so, it is not well understood how individuals with heterogeneous preferences react to the procedure used to select the default options. We develop an econometric approach to test and compare default bias across default-setting rules that controls for heterogeneous individual preferences. In a within-subject experimental design studying lottery choices, we apply our approach to compare four different default-setting rules: Random defaults, Custom defaults selected based on an individual's own past choices, Social defaults selected based on others’ choices, and Expert-set defaults. We find that the content of default-setting rules matters: we find default bias in all non-random default-setting regimes but not with Random defaults. Our subjects also tended to rank non-random default-setting regimes over choosing with No Default and Random defaults.

Sarah Zaccagni (University of Copenhagen)
*Promoting social distancing in a pandemic: Beyond the good intentions*

Do reminders to promote social distancing achieve the desired effects? Much of the existing literature analyses impacts on people’s intentions to comply. We run a randomised controlled trial in Denmark to test different versions of a reminder to stay home at the beginning of the crisis. Using a two-stage design, we follow up with recipients
and analyse their subsequent behaviour. We find that the reminder increases ex-ante intentions to comply when it emphasises the consequences of non-compliance for the subjects themselves and their families, while it has no effect when the emphasis is on other people or the country as a whole. We also find, however, that impacts on intentions do not translate into equivalent impacts on actions. This is despite the possibility that respondents may tend to over-report compliance. Only people in poor health react to the reminder by staying home more. Our results shed light on important gaps between people’s intentions and their actions in responding to the recommendations of health authorities.

**Abu Siddique (TU Munich)**

*Forced Displacement, Mental Health, and Child Development: Evidence from the Rohingya Refugees*

Forced displacement is a major driver of mental disorders among refugees worldwide. Poor mental health of adult refugees, particularly mothers, is also considered a risk factor for the psychological well-being and development of their children. In this paper, we experimentally examine the extent to which a rigorous psychoeducation program promotes psychological well-being of refugee mothers and socioemotional, physical, and cognitive development of their children under the age of 2 years. Through a clustered randomized controlled trial among the severely persecuted Rohingya refugees residing in Bangladesh, roughly 3,500 mother-child pairs were given weekly psychosocial support for a year that includes psychoeducation and parenting counselling for mothers and play activities for children. We find that the intervention led to significant improvements in: (i) psychological trauma and depression of mothers and children, (ii) communication, gross-motor, problem-solving, and personal-social skills of children, and (iii) happiness and belongingness of mothers. A causal mediation analysis suggests that the psychological well-being of mothers is the primary channel of impact on children’s development. The intervention also caused the mental health of mothers to be more aligned with the mental health of their sons, but not with their daughters. Finally, we also find that the intervention had a stronger impact on the mental health of mothers that were highly exposed to violence and persecutions during the 2016-17 Rohingya genocide in Myanmar than mothers with minimal exposure.

**Gender**

**Mallory Avery (University of Pittsburgh)**

*A Hidden Cost of Affirmative Action: Muddying Signals about Women’s Ability*

Despite gains in female representation in early career stages, large gender gaps persist at the higher ends of the income distribution. This paper uses an experiment to study whether affirmative action, which has been used mainly in early career stages, could have a hidden cost. Specifically, by manipulating the presence of affirmative action in an initial competitive environment, I test whether the presence of affirmative action decreases the strength of the signal about a woman's ability when she is successful and thus the likelihood of her being employed in a second stage. Consistent with the hypotheses from a simple theoretical framework of employee tournament entry and employer hiring decisions, I find that qualified women are significantly less likely to be hired when those qualifications were gained in the presence of affirmative action. Additionally, I find empirical support that this decrease in hiring comes through muddied employer beliefs about the ability of these previously successful women, explaining over 56% of the hiring difference. A welfare analysis shows that, while affirmative action has an overall positive effect for women in this experiment due to increasing the number of women who enter and are successful in the first competitive stage, the welfare improvement would be three times as large if there were not the cost in terms of muddying signals about women’s ability.

**David Klinowski (Stanford University)**

*The underrepresentation of women among authors of post-publication comments*

Academic journals often use the comment-reply-rejoinder format to conduct scientific debates. Scholars have noted that this format can lead to competitive and adversarial exchanges between authors, without necessarily contributing to resolving disagreements or generating cumulative knowledge. Using publication data from a range of disciplines in the natural and social sciences, I provide evidence that this adversarial format discourages female scholars more than males from participating in the discussion, exacerbating the underrepresentation of women in the literature. Relative to regular research articles, direct critiques of someone else’s published work are more often written by junior, male, solo authors. The results suggest that establishing norms and institutions that discourage aggressive interactions between scholars may help to increase entry and retention of women in the profession.
Matthew Ridley (Massachusetts Institute of Technology)

*Learning in the Household*

This paper studies social learning and information aggregation within the household using a lab experiment with 400 married couples in Chennai, India. Participants are asked to guess the fraction of red balls in an urn after each spouse privately receives draws from the urn and then has a chance to learn their spouse’s draws through a face-to-face discussion. Guesses are paid for accuracy and the payoff is split equally between the spouses, aligning their incentives. We find that husbands’ beliefs respond less than half as much to information that was collected by their wives, relative to ‘own’ information. This failure of social learning is not due to communication frictions: when we directly share their wife’s information with husbands, they continue to under-weight it relative to their own draws. Wives do not display this behavior, and instead equally weight their own and their spouse’s information. In a follow-up experiment with pairs of strangers, individuals of both genders put more weight on their own information than on their partner’s. We conclude that people have a general tendency to under-weight others’ information relative to their own, and speculate that a norm of wives deferring to their husbands may play a countervailing role in our context. People’s bias in favor of their own information appears to explain why joint guesses are weakly worse than individual guesses in our experiment.

Kerstin Grosch (Institute for Advanced Studies, Vienna)

*Closing the STEM gap - A large-scale randomized-controlled trial in elementary schools*

We examine individual-level determinants of interest in STEM and analyze if a digital web application for elementary-school children can increase children’s’ STEM interest with a specific focus on narrowing the gender gap in STEM. Coupling a randomized controlled trial with lab experimental and survey data, we can analyze the effect of the digital intervention and shed light on the mechanisms. We confirm the hypothesis that girls demonstrate lower interest in STEM as compared to boys overall. Moreover, girls have less pronounced competitive preferences and math confidence than boys at the baseline. The treatment increases girls’ interest in STEM and decreases the gender gap via an increase in STEM confidence and competitive preferences. Our findings suggest that an easy to implement digital intervention may have the potential to foster gender equality for young children and may contribute later in life to a reduction of gender inequalities in the labor market such as occupational sorting and the gender wage gap.

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**Keynote Presentation**

19:30-20:15

Imran Rasul (University College London)

*Social Structure and the Localized Delivery of Development Interventions*

There has been a dramatic rise in use of the local delivery model for development interventions, where local agents are hired as intermediaries to target interventions to potential beneficiaries. We study this model in the context of an agricultural extension intervention in Uganda, where delivery agents are tasked to target needy farmers in their community. We investigate how the web of vertical ties between the delivery agent and potential beneficiaries, horizontal ties between the actual delivery agent and a counterfactual delivery agent, and community divisions, interact to provide social incentives to delivery agents, thus determining how the intervention unfolds within rural economies. We use a two-stage randomization design, across and within communities, to identify counterfactual delivery agents. We reveal the central role community divisions play: delivery agents exert effort to target farmers only when they are from opposing sides of community divides to the counterfactual agent. However, delivery agents are then also more likely to target non-needy farmers. This goes against the pro-poor intent of the intervention, and leads to a 11% loss in potential surplus. However, welfare overall increases by 6% because the surplus gains from targeting more farmers offsets the effects of targeting the non-needy. Our analysis shows how viewing development policy through the lens of social structure helps explain why intervention effectiveness varies across communities, and how interventions can increase inequality within communities. We conclude by discussing design implications for the local delivery model.