



Universitat  
Pompeu Fabra  
Barcelona

barcelona  
school of  
management

## Symposium program

**9.30: Registration and Welcome**

**10.00-11.20: Session 1**

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|-------------------------------|--|
| 1. Fernando Blanco:           | Political attitudes modulate the illusion of causality   |
| 2. Carmelo Perez:             | Causal binding: How causal inferences affect to time estimation                                  |
| 3. Itxaso Barberia Fernandez: | Causal illusions die hard  |
| 4. Luis Moris Fernandez:      | Undisclosed flexibility in the pre-processing of reaction times inflates the false-positive rate |

**11.20 – 11.50: coffee break**

**11.50 - 13.10: Session 2**

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|---------------------|--|
| 1. Marc Lluís Vives | Choosing between now or later using a foreign language   |
| 2. Yan Bai          | Back to the Future: Can awareness of previous unintentional unethical decisions change subsequent intentional decisions? |
| 3. Shohei Yamamoto  | The endowment effect in the future: How time shapes buying and selling prices  |
| 4. Juan Navas       | The role of decision-making inflexibility in gambling disorder   |

**13.10 – 14.30: Lunch + poster session**

**14.30 – 15.30: SEPEX CONFERENCE by Uri Simonsohn**

**15.45 – 16.55: Session 3**

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|-------------------|--|
| 1. Claire Brower  | Mirrors with Unflattering Reflections. Self-threat as Fuel for Social Change or Social Inertia?        |
| 2. Antonio Espin  | 'Born this Way'?: Prenatal Exposure to Testosterone May Determine Behavior in Competition and Conflict |
| 3. Thomas Woiczyk | How Stable is In-Group Favouritism?  |

**16.55-17.15: coffee break**

**17.15-18.15: Session 4**

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|------------------------------|--|
| 1. Francisco Reyes Pereira   | People-centric solutions for organizations: no behavioral intervention without behavioral assessment |
| 2. Iker Madinabeitia Cabrera | Mental workload impairs the pass precision in soccer players   |
| 3. Anisa Shyti               | The priceless entrepreneur? A behavioral account on risk and ambiguity attitudes                     |

**18.45: General Assembly of SEJyD**

## Posters

1. Lara Ezquerra: Distributional Consequences of Endogenous and Compulsory Delegation
2. María F. Jara-Rizzo: The paradoxical relationship between emotion regulation and gambling-related cognitive biases
3. Marcos Díaz-Lago: Perceived efficacy as a function of price: A non-effective drug seems better when it is expensive
4. María Manuela Moreno-Fernández: Control overestimation in children. The role of being actively involved in a task
5. Mari Aguilera: Differential effects of specific schizotypal traits over two measures of creativity
6. Josep Gisbert Rodríguez: How Selective Feedback vs Full Feedback Affects Belief Formation

# Paper Abstracts

## Session 1

### **Political attitudes modulate the illusion of causality**

The causal illusion is a cognitive bias that induces beliefs of causality that are unsupported by evidence. We report two experiments framed in a political scenario, in which participants must judge the ability of a ruling political party to achieve improvements in citizens' well-being. In one condition, the political party is described as "left-wing", whereas in another condition, it is described as "right-wing". The actual contingency between the party's actions and the achievements is always null (i.e., their actions are completely useless to produce the achievement). However, we observe a causal illusion when participants judge the party with which they align ideologically. That is, left-wing participants overestimated the success of the left-wing party, and right-wing participants overestimated the success of the right-wing party. When interpreting these results, we suggest that the causal illusion can occur selectively to protect previous beliefs and self-esteem.

### **Causal binding: How causal inferences affect to time estimation**

If two stimuli (e.g., participants' action and the the onset of a tone) are perceived as cause and effect they are estimated closer in time than they actually are. This effect is named causal binding. We present our major contributions, both technical and theoretical to the study of this effect. Firstly, we presented Labclock Web, an htm5 tool that allow to non-experts programmers to conduct online experiments based on Libet clock methodology. We tested that tool conducting experiments in laboratory and through the Internet, using different test (e.g., asking participants for the moment of their action or the moment of their intention to act) and using long (500 ms) and short (100 ms) delays between action and tone. We concluded that Labclock Web is an usable and trustworthy tool to conduct experiments in this area. In later experiments we found that participants learn to adjust their judgments to the actually time of action through training. This finding question some of the explanation about temporal binding and open a new way to explore this effect. Finally we present some unsolved questions in the study of causal binding and possible future research.

### **Causal illusions die hard**

Associative models such as Rescorla-Wagner's can easily explain the appearance of causal illusions, as long as it is assumed that the asymptote of learning has not yet been reached. We present an experiment in which we explore whether causal illusions survive extensive training. One group of participants was exposed to a causal learning task involving a standard length of training, whereas a second group was exposed to a six times longer training. We found moderate evidence against the hypothesis that the intensity of the illusion declines due to prolonged training. This result questions the idea that causal illusions are the consequence of incomplete learning.

## Undisclosed flexibility in the pre-processing of reaction times inflates the false-positive rate

Over the last decade, psychology has started to doubt the validity of the statistical inferences drawn from many studies, partly due to the problem of inflated false-positive rates. Terms like “researcher’s degrees of freedom”, “*p*-hacking” or “garden of forking paths” have been used to describe questionable research practices like running different analyses or adapting them based on the data recorded, for example increasing the sample size, dropping a condition or dropping a covariate, among others. These practices in combination with incentives for maximizing the number of publications are one of the best recipes for false-positive results, even with no malice on the researcher’s part.

In this study, we analyzed the influence of these practices on one of the most popular dependent measures in psychology, namely, reaction times (RT). We think that RTs are somewhat special and deserve an independent study because they entail some *degrees of freedom of their own*, mainly due to their non-normal distribution and the presence of outliers. Moreover, these degrees of freedom are usually not considered part of the analysis itself, but data-preprocessing steps and usually considered to be contingent on the recorded data.

We analyzed the impact of these degrees of freedom on the false-positive rate using simulations over real and synthetic data. Our results show that the false-positive rate is inflated when instead of having an a priori –or, even better, pre-registered– preprocessing pipeline, the preprocessing of RTs is modified after seeing the data or several analyses are run. Simply being flexible about whether to use the mean or the median as the central-tendency measure can increase the false-positive rate up to 8%. Using several outlier discarding procedures can rise it beyond 10%. These false-positive rates, worrying by themselves, become more concerning when we consider that down the analysis pipeline even more degrees of freedom are awaiting, potentially making the final false-positive rate much higher.

## Session 2

### **Choosing between now or later using a foreign language**

People change their moral judgments and risky economic choices when using a foreign language. Foreign language use also reduces loss and ambiguity aversion. A shared characteristic between these foreign language effects is their link with emotion. Here, we explored the impact of foreign language use in another emotional context: intertemporal choices. We ran four experiments, three in which participants faced different monetary rewards at different time, and another related to health. No effect of language was found in the money domain. In contrast, foreign language reduced the present bias and people discounted less the future for the health domain in comparison with the native language. Further research and potential explanations will be discussed.

### **Back to the Future: Can awareness of previous unintentional unethical decisions change subsequent intentional decisions?**

Individuals often engage in unethical behavior unintentionally due to their bounded awareness of ethicality (Bazerman & Sezer, 2016). This paper explores whether removing the boundaries of ethical unawareness can improve the ethicality of future decisions. We provide consistent (and worrisome) evidence from two field studies and two lab experiments that individuals who are made aware of being unintentionally unethical in the past do not make more ethical decisions in the future in comparison to those who remain unaware of the unethicality of their past actions. This finding is contrary to lay persons' predictions that ethical awareness about one's own past unintentional actions should improve the ethicality of one's future intentional decisions. In addition, we demonstrate that even explicit advice from an ethical expert or technical expert, suggesting to engage in a more ethical consequent behavior, does not help improve the ethicality of one's future actions. We show that such an advice can backfire if it comes from a technical expert.

### **The endowment effect in the future: How time shapes buying and selling prices**

It has been widely documented that people tend to give a higher value to objects just because they own them. This pattern has been called the *endowment effect* (Thaler, 1980) and it is typically explained using the notion of loss aversion. The endowment effect is one of the most prominent phenomena in behavioral economics and it has important implications for a variety of situations related to buying and selling. However, virtually all research on this effect investigates transactions that take place in the present. This is a significant limitation, given that many real-world transactions have a temporal dimension. In many circumstances, people agree on a purchase or a sale and the transaction does not materialize until a later time in the future (e.g., in online buying and selling).

In this paper, we explore how transaction timing affects the endowment effect. We conducted four experiments in which the transaction timing of different products was systematically changed for buyers and sellers. We found that delaying transactions into the future systematically increases the endowment effect across a variety of products, and we show that this pattern is produced by gains being discounted in time substantially more than losses.

## **The role of decision-making inflexibility in gambling disorder**

The Probabilistic Reversal Learning Task (PRLT) is a decision-making paradigm developed as an index to measure the adaptiveness of decision making to changing reward contingencies. Lack of such adaptiveness (i.e. decision-making inflexibility) has been recently proposed to be a vulnerability factor to develop gambling problems: people with high trait inflexibility would be less prone to change their preferences between two choice options differing in their rates of reward when such rates reverse. Different theoretical approaches regard PRLT inflexibility in problem gamblers as either a manifestation of the imbalance between goal-directed and habitual behavior systems, or as a sign of the inability to automatically update the affective values of stimuli or choice options (model-free emotion regulation). In the study presented here, acquisition and re-acquisition PRLT curves of gambling disorder patients and healthy controls were analyzed using generalized linear mixed-effects models. Specific signs of inflexibility (slowed re-acquisition curves in task phases with reversed reward contingencies) were observed to be linked to gambling problems and weakened automatic (model-free) emotion regulation, as measured by self-report measures.

### Session 3

#### **Mirrors with Unflattering Reflections. *Self-threat* as Fuel for Social Change or Social Inertia?**

Moral deviants - people who deviate from the norm on the basis of a moral principle - may be effective agents in stimulating social change towards a more sustainable future, by providing an example to imitate. However, trying to inspire others by setting an example can be a bumpy road. Previous research demonstrated that moral deviants implicitly may hold up a psychological mirror whose reflection highlights observers' moral shortcomings. This reflection challenges observers' sense of moral adequacy and presents a *threat* to their moral self-views. How do observers deal with this *self-threat* and what role does self-threat play in the process of stimulating social change advocated by moral deviants?

Currently, there are two research streams that suggest opposing effects of triggering self-threat on the likelihood that observers end up supporting versus resisting the social change that moral deviants endorse. One research stream on "do-gooder derogation" suggests that self-threat is harmful for social change, because it mobilizes *self-defense mechanisms* aimed at dismissing moral deviants and what they stand for. As a result, self-threat leads to *social inertia*. Another research stream on mobilizing collective action suggests that self-threat can be fruitful to facilitate *social change*. Self-threat can activate *self-regulatory mechanisms* in observers and motivate them to improve themselves, leading to social imitation of the moral deviants' example.

In my research, I aim to reconcile these research streams and provide insight into the conditions under which self-threat can slow down, or stimulate social change. First, I am developing an integrative model. I integrate a wide range of existing literature that can inform us about the role of self-threat in the social dynamic between moral deviants and observers. Second, from that integrative model I derive a number of concrete predictions to be tested in experimental studies. Those predictions relate to the questions *when* self-threat may be appropriate to promote social change, and *who* would be the most effective change agents in those given situations.

The ultimate goal is to propose tools to stimulate social change, by understanding how observers can be inspired by moral deviants to follow their example. At the practical level, I want to provide policy-makers and individuals with a clearer comprehension regarding how it is possible to harness self-threat in the service of stimulating sustainable lifestyles.

#### **Born this Way?: Prenatal Exposure to Testosterone May Determine Behavior in Competition and Conflict**

It is documented that fetal exposure to sexual hormones has long lasting effects on human behavior. The second-to-fourth digit ratio is a putative marker for prenatal exposure to testosterone (compared to estrogens) while in uterus with higher relative exposure to testosterone resulting in a lower digit ratio (DR). Although the existing literature documents the correlation with DR and various decisions, little research has studied the same in competition or conflict. We investigate this question in the laboratory. Based on a previously obtained large sample of student subjects, we selectively invite subjects to the laboratory if their right-hand DR is in the top (High-type) or bottom (Low-type) tercile for their gender. Unbeknownst to the subjects, we perform a controlled match of High and Low-types as opponents in a 2-person Tullock contest. Both such matching as well as the investigation of the DR and conflict behavior are new to the literature. We find that Low-type males expend significantly higher conflict effort than their High-type counterparts, that is, they are more aggressive. However, they do not necessarily earn more than the High-type, but anybody while in conflict with a Low-type earns significantly less than while in conflict with a High-type. The results go mostly in the opposite direction for females: overall

everyone is more aggressive against the High-type, and Low-types earn more than their High-type counterparts. These results can partially be explained through high joy of winning and/or spitefulness for Low-type males, and high spitefulness for Low-type females. This investigation sheds light on the importance of biological aspects in the ex-ante determinants of conflict, and on contest design.

### **How Stable is In-Group Favouritism?**

Research has found that people - on average - tend to treat members of their in-group more positively than member-of their out-group. But how stable is in-group favouritism at the individual level over time? Previous research cannot answer this question as past studies employ exclusively experiments with only one session. We report two three-wave studies that measured the stability of in-group favouritism within participants, over time in the classical context of resource allocation. In both our studies the correlation between levels of in-group favouritism in any two waves was about 0.50 which is lower than the test re-test correlation on Big 5 personality dimensions, but is higher than documented correlations between attitudes and behaviour. At first sight, it suggests stability of in-group favouritism over time but we find evidence of a high level of heterogeneity in terms of the stability of in-group favouritism: a minority of participants had very stable behaviour from wave to wave whereas the majority of participants behaved in a much less consistent way. Our results suggest that a minority of people show a strong and stable level of in-group favouritism. This indicates the possibility of ex-ante predictors of this behaviour. Surprisingly, the most reliable predictor of the stability of in-group favouritism was the score on the 'openness to experience' dimension of the Big 5 personality test.

## Session 4

### **People-centric solutions for organizations: no behavioral intervention without behavioral assessment”**

Public and private organizations are increasingly applying behavioral economics methods to a variety of issues such as mechanism design and incentive architecture. Most of them working on market and customer issues. However, there are very few that offer solutions in the world of human resources and even fewer that have focused on providing solutions to existing problems in the field of employee selection and promotion. It is even more difficult when the measures involve group work and not just individual characteristics. Applying experimental tools used in behavioral economics can help companies learn more about their (current or prospective) workforce and, more specifically, about their employees' tastes and inclinations. This has important implications for broader organizational performance since some designs/incentives are likely to affect only individuals with a particular disposition (e.g. risk averse or fairness oriented) but not others or can even have opposite effects on individuals with different sets of preferences. In this talk, we point out a number of promising avenues for the application of a behavioral economics lens to understand and manage people within organizations.

### **Mental workload impairs the pass precision in soccer players.**

Soccer players must make both mental and physical efforts simultaneously during the competition. Athletes who do not have automated skills that require accuracy will impair their performance in this dual-task situation. However, there has been a low control over the nature and magnitude of the mental load that athletes experience during play actions, and to what extent such a load is detrimental to athletic performance. In order to advance this knowledge, a counter-balanced intrasubject study was designed with repeated post-condition measures on two conditions: (1) a specific physical and coordinating task of soccer; (2) and a dual-task in which the previous task was similar adding cognitive control requirements. Twenty-eight male semi-professional players participated [middle age = 20.07 years ( $\pm 0.23$ )]. The presence of physical charge simultaneous to the mental load had a negative effect on accuracy. In turn, the emotional states aroused in the double task predicted performance in the motor task. Forcing the player to have to use their attentional resources in the mental task seems not to allow an adequate use of the available information necessary for an efficient adjustment of the action.

### **The Priceless Entrepreneur?**

Prior research suggests that entrepreneurs are rewarded for bearing ambiguity. Evidence, however, reports no difference in risk/ambiguity attitudes between entrepreneurs and non-entrepreneurs. We reconcile this inconsistency through two prospect theory experiments and a population study of entrepreneurs. Experimental results show that entrepreneurs are more ambiguity tolerant than non-entrepreneurs, and demand higher wage equivalents. In the population study of equilibrium wages of entrepreneurs who return to employment, we both corroborate the experimental findings and disentangle skill premia, the price of strategic human capital, from ambiguity premia, the price of entrepreneur's freedom. Findings support unique and substantial ambiguity premia. We argue that entrepreneur's ambiguity tolerance may influence strategic decision making and drive impactful exploratory strategies in uncharted terrains, within and outside the firm.