

3rd EDITION OF

Behavioral and Experimental Economics Workshop
"Interactions, risk and markets"

BEE Workshop

Lyon | Toulouse LT3



November 29, 2012 | Toulouse, FRANCE

BEE Workshop - Preliminary Program

Presentations are in room MS001

- 9h-9h40 **A large scale experiment study of school choice mechanisms**
Min Zhu, Lyon
- 9h40-10h20 **Cooperating over losses and competing over gains**
Peter Schwardmann, Toulouse
- 10h20-11h **Intermittent sanctions and cooperation in a public good game**
Zhixin Dai, Lyon
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- 11h-11h30 Coffee Break
-
- 11h30-12h **Effort, selection and conflict of interests**
Valeria Maggian, Lyon
- 12h-12h30 **Gender stereotypes in the labor market and education track choice**
Marie Lalanne, Toulouse
-
- 12h30-14h Lunch
-
- 14h-14h40 **Adverse selection of borrowers prone to delusion**
Luc Bridet, Toulouse
- 14h40-15h20 **Neural underpinnings of dynamics social tie formation in a public good game**
Nadège Bault, Lyon
-
- 15h20-16h Coffee Break
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- 16h-16h30 **Incentives to obfuscate price versus product features by competing firms**
Anastasia Shchepetova, Toulouse
- 16h30-17h **Verbal feedback in a public good game experiment**
Benjamin Pelloux, Lyon

Abstracts

A Large Scale Experimental Study of School Choice Mechanisms (Min Zhu, Lyon)

The scale of experimental school choice studies is usually significantly smaller than its real world counterpart. In this study, we expand the scale of school choice experiment in the laboratory setting by pairing human subjects with many computer agents who either reveal their true preferences, or draw their strategies from those of the human subjects in similarly designed experiments. We find that the truth-telling property of both the Boston and the DA mechanisms holds when the scale becomes larger. In addition, the Boston mechanism is more efficient than the DA mechanism under larger scale. However, we do not observe that scale has significant effect on truth-telling behavior across both mechanisms.

Cooperating over losses and competing over gains (Peter Schwardmann, Toulouse)

We let experimental subjects play a social dilemma game and vary whether payoffs are framed as losses or gains. We find significantly more cooperation when subjects play over losses compared to gains. This is consistent with the game's quantal response equilibrium, a solution concept that allows for noisy behavior, if subjects are risk loving over losses and risk averse over gains, as proposed by prospect theory. Noisy equilibrium behavior injects uncertainty over outcomes into our game and risk preferences then determine how this uncertainty is felt by subjects and ultimately, which actions they choose. The quantal response equilibrium does not only replicate our qualitative findings, but also matches the distributions of subjects' actions. Our experimental results have important economic applications including imperfect price competition with sunk costs and effort provision in labour tournaments. Our emphasized explanation featuring noisy behavior and risk preferences may furthermore shed light on other puzzling results in the experimental literature.

Intermittent Sanctions and Cooperation in a Public Good Game (Zhixin Dai, Lyon)

How to improve the efficiency of punishment is of great interest for researchers as well as policymakers. We show that using an exogenous intermittent sanctioning schedule can improve cooperation and efficiency in the long run as opposed to a costly continuous scheme. A regime shift is implemented in each treatment to investigate the long-term efficiency. We also elicited Players' beliefs to study how their behavior is influenced by expectations. Additional manipulations of the frequency of audits and sanctions allow us to identify the minimum frequency for which the highest level of cooperation is sustained in the long run.

Effort, Selection and Conflict of interests (Valeria Maggian, Lyon)

We experimentally analyze the choice of a selector who has to hire, on the behalf of the principal, one agent out of two to perform a task for a fixed compensation. The two agents differ in their ex-ante ability and, once employed, the selected agent exerts a costly non-contractible effort in two activities: one benefits the organization (i.e. both the principal and the selector) while the other only benefits the selector and it is also less productive. Our research question is of particular interest when considering open competition in the public sector: if mediocre (i.e. with ex-ante low ability) candidates have the opportunity to provide direct benefits to the selector in order to be selected, then the subsequent effort exerted in the task which benefits the organization may be lower than in a standard selection process. Moreover, this effect may be even stronger when considering that only mediocre agents, which have lesser opportunities to

be hired, are prone to exert inefficient effort to be hired. As a result, society ends up with a public sector that is more and more characterized by mediocre and lazy agents.

Gender stereotypes in the labor market and education track choice (Marie Lalanne, Toulouse)

We want to study the impact of gender stereotypes in the labor market on individuals' education choices. We assume there exist two tasks/jobs that can be done in the labor market and in which individuals can train at in the first place. We create in the lab several different "stereotype situations" (no stereotype, stereotype revealed to workers only, stereotype revealed to workers and employers) in order to understand how individuals modify their choice of training/schooling and analyze the welfare of each situation.

Adverse selection of borrowers prone to delusion (Luc Bridet, Toulouse)

We set out to study how unrealistic optimism on behalf of borrowers may arise in a model of financial contracting under adverse selection, and how lenders adjust their behaviour to respond strategically to this possibility. We consider borrowers who derive anticipatory utility from future payoffs and are free to choose their beliefs (as in Brunnermeier and Parker (2005)): borrowers receive higher current utility if they are free from worrying about the future, but distorted beliefs can also lead to distorted actions, with negative material consequences. We show that when borrowers with private information are prone to engage in wishful thinking, a lender may offer a menu of contracts that is markedly different from the standard second-best allocation without the possibility of delusion. Our framework provides a new interpretation of concepts such as over-lending, over-collateralisation, and a certain form of predatory lending. And instead of being assumed at the outset, systematic over-optimism emerges as a result.

Neural Underpinnings of Dynamic Social Tie Formation in a Public Good Game (Nadège Bault, Lyon)

In models of other-regarding preferences, formalized through interdependent utility functions, a weight is attached to the utility or welfare of other individuals. These models generally assume this weight to be stable, regardless of the interaction history with the interaction partner. Here we test a model of choice where this weight is related to the dynamic formation of a social tie. A social tie refers to a caring about the interests of a specific other person, based on feelings experienced while interacting with that other person. We tested the hypothesis that brain regions known to process social information might keep track of the tie strength. Twenty five pairs of subjects repeatedly played a public good game (PGG). During the outcome phase they were presented with the contribution of the other and both players' payoff. We measured the BOLD signal of one participant in each pair using fMRI. Behavioral data were used to estimate the tie building up between participants during the game. The social tie was then used as a regressor in fMRI analyses. Our model performed well in predicting the behavior of participants. At the moment of choice, activity in the bilateral posterior temporal sulcus (pSTS), and temporo-parietal junction (TPJ) correlated with the dynamically estimated tie parameter, supporting a role of these regions in social tie formation. In addition, activity of the mPFC correlated with contributions in the PGG. We also found functional connectivity between the STS and the mPFC, suggesting that the representation of social ties is integrated in the decision process. Regions typically activated in tasks involving social interaction encode both the kindness of the other's choice and the dynamic formation of social ties. These results provide a

new insight in modeling other-regarding preferences in economic choices and in understanding the underlying neural mechanisms.

Incentives to obfuscate price versus product features by competing firms (Anastasia Shchepetova, Toulouse)

In this paper we study market outcomes in the setting where competing firms can influence searching behavior of consumers. When shopping for the best deals consumers look for the best combination of price and product features. We allow for the possibility to separate price information from product feature information and study the incentives of firms to obfuscate each dimension separately. In equilibrium firms randomize in their price choice over some interval. We characterize several outcomes depending on the assumptions as to consumer purchasing behavior. In general, the firms that charge higher prices are more likely to limit consumers' ability to price shop but at the same time encourage product comparison, by making their product features transparent and keeping their niche customers. By contrast firms that compete by choosing low prices tend to make it easier for consumers to compare prices, but would choose to increase their demand beyond their niche consumers by making their product features more difficult to compare across the firms. Increasing competition, via more competitors in the market, forces firms to choose more often the strategy of high and hardly comparable prices with transparent products. We then aim to test these theoretical predictions as to equilibrium market outcomes in the laboratory setting.

Verbal Feedback in a Public Good Experiment (Benjamin Pelloux, Lyon)

Few experiments have been interested in the role of ex post verbal communication in simple 1-shot games. Xiao and Houser (2009) and Ellingsen and Johannesson (2008) found that donations in Dictator Games were significantly higher when the receiver had the possibility to write a message once he got to know the donation. This was interpreted as dictators trying to "avoid the sharp tongue" of the potentially angry receiver. On the other hand, Xiao and Houser (2005) found that unfair offers were accepted more often by responders when verbal feedback was available in the Ultimatum Game, suggesting substitutability between monetary and verbal punishment mechanisms. Our paper will try to address experimentally the ability of such a verbal feedback mechanism to maintain a certain level of cooperation in a Public Good Game, compared to a monetary punishment scheme and a control treatment. Results show that, at the aggregate level, verbal feedback generates lower contributions to the public good than the financial punishment device but higher than the control treatment. At the individual level, we find that less cooperative players are more likely to receive messages. Importantly, the more messages they will receive, the more they will increase their contribution in the next round. Underlying this effect, two emotions seem to play opposite roles: while "guilt-provoking" messages have a positive effect on contributions, "anger-provoking" messages appear counter-productive.

Workshop Venue

Toulouse School of Economics (TSE) - Manufacture des Tabacs - Building S
1 rue des Amidonniers, 31000 Toulouse, France

