UK 040832

# Behavioral and Experimental Economics

Behavioral economics attempts to make economics a more relevant and powerful science of human behavior by integrating insights from psychology and the social sciences into economics. Experimental economics adapts methods developed in the natural sciences to study economic behavior. Experiments are valuable in testing to what extent the integration of insights from other disciplines into economics is necessary and fruitful.

Behavioral and Experimental Economics is a vibrant field of research in economics and sheds new light on many old and important issues in economics. While still young, the field has received wide recognition in recent years, for example by the award of the Nobel Prize in Economics 2002 to Daniel Kahneman and Vernon Smith (the Nobel Prize winners Reinhard Selten 1994, Elinor Ostrom in 2009, and Alvin Roth 2012 have also importantly contributed to experimental economics). The field is rapidly growing. This course can therefore not provide a comprehensive overview but concentrates on selected topics instead.

The course addresses the following questions:

What are the advantages and limitations of experimental economics?

How important are deviations from the assumptions of full rationality and strict self-interest in determining outcomes of economic interaction? It is argued that identifying individual-level "anomalies" is not sufficient to demonstrate their economic and social importance. Instead, it must be analyzed how institutions mitigate and multiply these anomalies. A broad range of institutions, including markets, bargaining and voting is discussed.

**Requirements**: A sound knowledge of microeconomics and game theory is required.

Successful completion of this course earns students 8 ECTS credits.

# **Grading:**

- a) Midterm exam (closed book, English, 50% of final grade). It reviews what has been discussed during the lecture so far.
- c) The final exam covers the content of the entire lecture but concentrates on what has been discussed in the second half of the course (closed book, English, 50% of final grade).
  - In line with the directives by the University administration, there will be NO general retake exam in this class. I may arrange individual make-up exams if you miss either the midterm or final for a good reason. Please send me an e-mail *before* the exam takes place to announce that you will miss it and provide appropriate documentation (e.g. medical attest) afterwards.

#### **Schedule**

The first lecture is held on Monday, October 2, 11:30. We meet on Mondays (Oct. 2 to Jan. 29): 11:30-13:00, **Hörsaal 12**, OMP1, 2<sup>nd</sup> floor 13:15-14:45, **Hörsaal 12**, OMP1, 2<sup>nd</sup> floor

Date 2.10. Introduction 180' 9.10. Introduction 120' / Markets 60' Markets 60' / Loss aversion 120' 16.10. 23.10. Biases in probability judgments 180' 30.10. No lecture Strategic complementarity 120' / Money illusion 60' 6.11. Money illusion 180' 13.11. 20.11. 11:30: **midterm exam** (HS 12 & HS 17) 27.11. Money illusion 30' / Fairness 150' Fairness 30' / Voting 150' 4.12. Voting 60' / Public goods 120' 11.12. Christmas No lecture Public goods 180' Reserve / O&A 15.1

8.1.

22.1. No lecture

Final exam (HS 6) 29.1.

## Readings

Papers marked with \* are required readings. These will be extensively discussed and can be covered in the final exam at the level discussed in my lectures. You are expected to read these papers but not to understand them in all details (except if discussed in class). However, I expect you to understand all concepts mentioned in class even if I do not explain them (again) in detail. For example, if I discuss an experiment on competitive markets and mention the 1st theorem of welfare economics, I expect you to know what this theorem says.

Papers marked with (\*) will be extensively discussed in the lecture but are unpublished papers, i.e. no materials beyond the lecture notes are available for exam preparation.

References marked with # are recommended reading. These references provide background information.

The remaining (non-marked) papers will only be mentioned or briefly discussed during the course (and are relevant for the exam only to the extent I discuss them) or may serve as "complementary reading" for those who want to delve more deeply into the literature.

Some readings will be made available at "Teaching Materials" on my homepage. Details will be provided in the first lecture.

#### Introduction

- # Bardsley, N., Cubitt, R. Loomes, G. Moffatt, P., Starmer, C. and Sugden, R. (2010): *Experimental Economics: Rethinking the Rules*. Princeton University Press: Princeton, NJ.
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- \* Camerer, C.F. et al. (2016): Evaluating Replicability of Laboratory Experiments in Economics. *Science* 10.1126/science.aaf0918.
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  - Tversky, A. and Kahneman, D. (1974): Judgment under Uncertainty: Heuristics and Biases. *Science* 185(4157): 1124-31.
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## **Competitive Markets**

- # Davis, D.D and Holt, C.A. (1993): Experimental Economics. Princeton Univ. Press: Princeton, N.J.: Ch. 3: Double Auction Markets: 125-72, Ch. 4: Posted Offer Markets: 173-239.
  - Deck, C.A. and Porter, D. (2013): Prediction Markets in the Laboratory. *Journal of Economic Surveys* 27(3): 589-603.
- \* Smith, V.L. (1962): An Experimental Study of Competitive Market Behavior. *Journal of Political Economy* 70(2): 111-137.
- \* Wolfers, J. and Zitzewitz, E. (2004): Prediction Markets. *Journal of Economic Perspectives* 18(2): 107-26.
- \* Huck, S. Hans-Theo Normann, H.-T. and Oechssler, J. (2004): Two are few and four are many: Number Effects in Experimental Oligopolies. *Journal of Economic Behavior & Organization* 53(4): 435-46.
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# Prospect Theory, Loss Aversion, WTA/WTP-Disparity

- \* Andersson, O., Holm, H.J., Tyran, J.-R. and Wengström, E. (2016): Deciding for Others Reduces Loss Aversion. *Management Science* 62(1): 29-36.
- \* De Martino, B., Kumaran, D., Seymour, B. and Dolan, R.J. (2006): Frames, Biases, and Rational Decision-Making in the Human Brain. *Science* 313: 684-7.
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## **Biases in Probability Judgments**

- Bar-Eli, M., Avugos, S. und Raab, M. (2006): Twenty Years of "Hot Hand" Research: Review and Critique. *Psychology of Sport and Exercise* 7(6): 525-53.
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- \* Suetens, S., Jørgensen, C.B. and Tyran, J.-R. (2016): Predicting Lotto Numbers. *Journal of the European Economic Association* 14(3): 584-607.
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# Strategic Complementarity, Coordination and Expectations

Bosch-Domenech, A. Garcia-Montalvo, J. and Nagel, R. (2002): One, Two, (Three), Infinity...: Newspaper and Lab Beauty-Contest Experiments. *American Economic Review* 92(5): 1687-701.

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## The Economics of Money illusion

# Akerlof, G.A. (2002): Behavioral Macroeconomics and Macroeconomic Behavior. *American Economic Review* 92(3): 411-33.

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- \* Cooper, K., Schneider, H.S. and Waldman, M. (2016): Limited Rationality and the Strategic Environment: Further Theory and Experimental Evidence. Forthcoming *Games and Economic Behavior*.
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## Fairness, Trust and Institutions

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#### **Issues in Public Economics and Collective Choice**

- \* Höchtl, W., Sausgruber, R. and Tyran, J.-R. (2012): Inequality Aversion and Voting on Redistribution. *European Economic Review* 56(7): 1406-21.
- \* Mechtenberg, L. and Tyran, J.-R. (2016): Voter Motivation and the Quality of Democratic Choice. Working paper U Copenhagen.
- \* Morton, R., Piovesan, M. and Tyran, J.-R. (2012): The Dark Side of the Vote. An Experimental Examination of the Condorcet Jury Theorem. Harvard Business School Working Paper 13-017.
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## **Cooperation and the Provision of Public Goods**

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- \* Keizer, K., Lindenberg, S. and Steg, L. (2008): The Spreading Disorder. *Science* 322: 1681-5.
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