

## **Syllabus: Behavioral and experimental economics (at MGSE)**

**Autumn/Winter 2007/08**

**Time and place: Mondays, 10:00-13:00**

**and Thursdays, 12:00-14:00**

### **Contents:**

The course focuses on how psychological insights and experimental methods have been influencing economic thinking. We will discuss several selected topics in microeconomics and public economics, most of which involve situations with strategic interaction.

**Course language:** English

**Literature:** Some books (or parts of them) and lots of papers and articles listed below where the contents of the course are expounded in greater detail.

**Aims:** The standard economic paradigm has been complemented over the last decades by important insights from psychological research, sociology, biology and other related fields. Concurrently, the methodological foundations of laboratory and field experiments in economic environments have been developed, and experimental methods have been applied to many basic and more applied research questions. Results from experiments provide feedback and input for the development of new models of economic behavior. This course aims to provide an exemplary overview of the interesting research programs from behavioral and experimental economics, to give a flavor of their importance and their extent as well as and, probably most importantly, to create a basis and interest for the use of the methods in one's own research.

**Methods:** We will not strictly distinguish between lectures and meetings that are organized in a seminar and reading group style. Most of the units will be held in a rather informal way. However, this means that all students do not only have to be present but also be prepared for discussing the relevant literature at each meeting.

### **Grading:**

- ☞ Presence and active participation in classes (necessary prerequisite for passing)
- ☞ Presentation including a written summary (40%)
- ☞ Co-presentation (10%)
- ☞ Final exam (written) (50%)

**Misc.:** Since on Thursday the class runs over lunch time, feel free to bring something to eat and drink but nonetheless please try to keep negative external effects on others in the class room as small as possible.

**Prerequisites:** Basic economic thinking (micro-economics) and standard game-theoretic concepts. In case you do not feel comfortable with concepts like Nash equilibrium, sub-game perfect

equilibrium, Bayesian equilibrium or perfect Bayesian equilibrium you should probably refresh your knowledge by reading a standard textbook on game theory (my recommendation would be: Gibbons, Robert (1992). *A Primer in Game Theory*, Prentice Hall).

## Preliminary lecture plan

<i>Date</i>	<i>Topic</i>
15.10., 10:00	(0) Introduction, Organizational issues, Plan for the semester, Division of work
18.10., 12:00	(1) Experimental example, Introduction to BE and EE, Methodological issues
22.10., 10:00	(2) Methodology round-tables, Bargaining games I
25.10., 12:00	(3) Bargaining games II
29.10., 10:00	(4) Bargaining games III
01.11.	Public holiday
05.11., 10:00	(5) Social preferences I
08.11., 12:00	(6) Social preferences II
12.11., 10:00	(7) Presentations and discussions on (1) – (6)
15.11.	Cancelled
19.11., 10:00	(8) Presentations and discussions on (1) – (6)
22.11., 12:00	(9) Cooperation I
26.11., 10:00	(10) Cooperation II
29.11., 12:00	Cancelled
03.12., 10:00	(11) Presentations and discussions on (9) – (10)
06.12., 12:00	(12) Presentations and discussions on (9) – (10)
10.12., 10:00	(13) Individual decision-making I
13.12.	Cancelled
17.12., 10:00	(14) Individual decision-making II
20.12., 12:00	(15) Presentations and discussions on (13) – (14)
07.01., 10:00	(16) ‘Excursion’ to the laboratory, Practical issues, Programming, Statistics
10.01.	Cancelled
14.01., 10:00	(17) Beauty-contest game and learning
17.01., 12:00	(18) Presentations and discussions on (17)
21.01., 10:00	(19) Auctions
24.01., 12:00	(20) Presentations and discussions on (19)
28.01., 10:00	(21) Team decision-making
31.01., 12:00	(22) Presentations and discussions on (21)
04.02., 10:00	(23) Self-control and neuro-economics
07.02., 12:00	(24) Presentations and discussions on (23)
11.02., 10:00	(25) Exam

As it is obvious from the overview some of the Thursday classes have to be cancelled. In order to compensate for the cancellations in terms of time, we will usually use the whole 3 resp. 2 hours whenever we meet.

Dates in shaded boxes mean that the main input during class comes from presentations of the students. Note however that I expect everybody to participate actively also during classes which are supposed to convey material through lectures.

**Presentation:** Presentations are possible in *two ways*:

(i) Presentation of an (experimental) research proposal: A proposal should contain a *motivation of the research question, related literature, a theoretic solution* of the interaction/situation, the *experimental design* (in detail), *hypotheses* to be tested and an account of the *expected results*.

(ii) Presentation of one or two articles concerning the according topics: You can choose those articles yourself or ask me for advice. In case you decide to present (an) article(s), I would expect a *detailed discussion of the main parts* of the article(s) and an account of the strengths and weaknesses of the article(s).

No matter what way of presentations you choose, presentations should be *informative and entertaining, clear and concise, accompanied with a few summary pages for your fellow students* and pose some *questions for discussion*. I also expect you to provide me with presentation slides in order to be able to put them on my website for all students. Whether collaboration is ok and the exact time guidance for the presentation depend on the number of students in the course. I will try to give individual feedback on presentations; please remind me if I forget.

**Co-present.:** As an incentive-compatible mechanism (for those who do not know what that means, it will become clear in the course of the experiment) students will be called as co-presenters. Co-presenters are determined randomly, and they can be called both during lectures and presentations of students. Their task would be to summarize important concepts and direct the class to a discussion. Papers marked with an asterisk are important for co-presentations and, therefore, recommended to read before class. You can decline a co-presentation once during the semester.

# Literature List

## (0) Book overviews and background reading:

1. Davis, Douglas and Holt, Charles (1993). *Experimental Economics*. Princeton Univ. Press.
2. Friedman, Dan and Sunder, Shyam (1994). *Experimental Methods – A Primer for Economists*. Cambridge Univ. Press.
3. Kagel, John and Roth, Al (1995). *The Handbook of Experimental Economics*. Princeton Univ. Press.
4. Camerer, Colin (2003). *Behavioral Game Theory. Experiments in Strategic Interaction*. Princeton Univ. Press.
5. Camerer, Colin, Loewenstein, George and Rabin, Matthew (2004, eds.). *Advances in Behavioral Economics*. Princeton Univ. Press.
6. Siegel, Sidney and Castellan, John (1988). *Nonparametric Statistics for Behavioral Sciences*. McGraw-Hill.

## (1) Methodological issues:

7. Smith, Vernon (1976). Experimental economics: induced value theory. *AER P&P* 66, 274-79.
8. Roth, Al (1988). Laboratory experimentation in economics: a methodological overview. *EJ* 98, 974-1031.\*
9. Rabin, Matthew (1998). Psychology and economics. *JEL* 36, 11-46.\*
10. Loewenstein, George (1999). Experimental economics from the vantage point of behavioural economics. *EJ* 109, F25-34.
11. Royal Swedish Academy of Science (2002). Foundations of behavioral and experimental economics: Daniel Kahnemann and Vernon Smith.  
[http://nobelprize.org/nobel\\_prizes/economics/laureates/2002/ecoadv02.pdf](http://nobelprize.org/nobel_prizes/economics/laureates/2002/ecoadv02.pdf)

## (2) Bargaining games I:

12. Güth, Werner, Schmittberger, Rolf and Schwarze, Bernd (1982). An experimental analysis of ultimatum bargaining. *JEBO* 3, 367-88.\*
13. Güth, Werner, Schmidt, Carsten and Sutter, Matthias (2003). Fairness in the mail and opportunism in the Internet – A newspaper experiment on ultimatum bargaining. *GER* 4, 243-65.
14. Bosman, Ronald and van Winden, Frans (2002). Emotional hazard in a power-to-take experiment. *EJ* 112, 146-69.\*
15. Camerer, Colin (2003). *Behavioral Game Theory. Experiments in Strategic Interaction*. Princeton Univ. Press, Chapter 2.

## (3) Bargaining games II:

16. Forsythe, Robert, Horowitz, Joel, Savin, N. E. and Sefton, Martin (1994). Fairness in simple bargaining games. *GEB* 6, 347-69.\*
17. Berg, Joyce, Dickhaut, John and McCabe, Kevin (1995). Trust, reciprocity, and social history. *GEB* 10, 121-42.\*
18. Fershtman, Chaim and Gneezy, Uri (2001). Discrimination in a segmented society: an experimental approach. *QJE* 116, 351-377.
19. Sutter, Matthias and Kocher, Martin (2007). Trust and trustworthiness across different age groups. *GEB* 59, 364-82.
20. Bohnet, Iris, Greig, Fiona, Herrmann, Benedikt and Zeckhauser, Richard (2007). Betrayal aversion. Evidence from Brazil, China, Switzerland, Turkey, the United Arab Emirates, and the United States. *AER*, forthcoming.

## (4) Bargaining games III:

21. Fehr, Ernst, Kirchsteiger, Georg and Riedl, Arno (1993). Does fairness prevent market clearing? An experimental investigation. *QJE* 108, 437-60.\*
22. Fehr, Ernst and Falk, Armin (1999). Wage rigidity in a competitive incomplete contract market. *JPE* 107, 106-34.
23. Brown, Martin, Falk, Armin and Fehr, Ernst (2004). Relational contracts and the nature of market interactions. *Econometrica* 72, 747-80.\*
24. Kocher, Martin, Luhan, Wolfgang and Sutter, Matthias (2007). Give every man his due? Relational contracts with individual and standardized wages. Working Paper, University of Innsbruck.

## (5) Social preferences I:

25. Fehr, Ernst and Schmidt, Klaus (1999). A theory of fairness, competition and cooperation. *QJE* 114, 817-68.\*
26. Bolton, Gary and Ockenfels, Axel (2000). ERC – A theory of equity, reciprocity and competition. *AER* 90, 166-93.
27. Charness, Gary and Rabin, Matthew (2002). Understanding social preferences with simple tests. *QJE* 117, 817-69.\*

## (6) Social preferences II:

28. Engelmann, Dirk and Strobel, Martin (2004). Inequality aversion, efficiency, and maximin preferences in simple distribution experiments. *AER* 94, 857-69.\*

29. Bolton, Gary and Ockenfels, Axel (2006). Inequality Aversion, efficiency, and maximin preferences in simple distribution experiments: comment. *AER* 96, 1906-11.
30. Fehr, Ernst, Näf, Michael, Schmidt, Klaus (2006). Inequality aversion, efficiency, and maximin preferences in simple distribution experiments: comment. *AER* 96, 1912-17.
31. Engelmann, Dirk and Strobel, Martin (2006). Inequality aversion, efficiency, and maximin preferences in simple distribution experiments: reply. *AER* 96, 1918-23.
32. Konow, James (2003). Which is the fairest one of all? A positive analysis of justice theories. *JEL* 41, 1188-1239.\*  
[Possible presentations: psychological game theory/reciprocity: Rabin, Matthew (1993), Geanakoplos, John et al. (1988), Sobel, Joel (2005), Segal, Uzi and Sobel, Joel (2007)]

### **(9) Cooperation I:**

33. Isaac, R. Marc, McCue, Kenneth and Plott, Charles (1985). Public goods provision in an experimental environment. *J Publ Econ* 26, 51-74.
34. Isaac, R. Marc and Walker, James (1988). Group size effects in public goods provision: the voluntary contributions mechanism. *QJE* 103, 179-99.\*
35. Fehr, Ernst and Gächter, Simon (2000). Cooperation and punishment in public goods experiments. *AER* 90, 980-94.\*
36. Masclet, David, Noussair, Charles, Tucker, Steven and Villeval, Marie-Claire (2003). Monetary and non-monetary punishment in the voluntary contributions mechanism. *AER* 93, 366-80.
37. Rege, Mari and Telle, Kjetil (2004). The impact of social approval and framing on cooperation in public good situations. *J Publ Econ* 88, 1625-44.
38. Falk, Armin, Fehr, Ernst and Fischbacher, Urs (2005). Driving forces behind informal sanctions. *Econometrica* 73, 2017-30.\*
39. Anderson, Christopher and Putterman, Louis (2006). Do non-strategic sanctions obey the law of demand? The demand for punishment in the voluntary contribution mechanism. *GEB* 54, 1-24.

### **(10) Cooperation II:**

40. Sefton, Martin, Shupp, Robert and Walker, James (2007). The effect of rewards and sanctions in provision of public goods. *Econ Inquiry* 45, 671-90.
41. Gürrer, Özgür, Irlenbusch, Bernd and Rockenbach, Bettina (2006). The competitive advantage of sanctioning institutions. *Science* 312 (7 April 2006), 108-11.\*
42. Sutter, Matthias, Haigner, Stefan and Kocher, Martin (2005). Choosing the stick or the carrot? – Endogenous institutional choice in social dilemma situations. Working Paper, University of Innsbruck.
43. Potters, Jan, Sefton, Martin and Vesterlund, Lisa (2005). After you – Endogenous sequencing in voluntary contribution games. *J Publ Econ* 89: 1399-1419.\*
44. Güth, Werner, Levati, Vittoria, Sutter, Matthias and van der Heijden, Eline (2007). Leading by example with and without exclusion power in voluntary contribution experiments. *J Publ Econ* 91, 1023-42.

### **(13) Individual decision-making I:**

45. Kahnemann, Daniel and Tversky, Amos (1979). Prospect theory: an analysis of decision under risk. *Econometrica* 47, 263-91.\*
46. Starmer, Chris (2000). Developments in non-expected utility theory: the hunt for a descriptive theory of choice under risk. *JEL* 38, 332-82.\*
47. Rabin, Matthew (2000). Risk aversion and expected utility theory: A calibration theorem. *Econometrica* 68, 1281-92.
48. Selected papers from Richard Thaler's anomalies series in the *JEPersp*

### **(14) Individual decision-making II:**

49. Sutter, Matthias and Kocher, Martin (2004). Favoritism of agents – The case of referees' home bias. *J Econ Psych* 25, 461-69.\*
50. Kocher, Martin and Trautmann, Stefan (2007). Strategic bidding for risky and ambiguous lotteries. Working Paper, University of Munich.
51. Trautmann, Stefan and Kocher, Martin (2007). Tempus fugit: Time pressure and information in risky decisions. Working Paper, University of Munich.  
[Possible presentations: loss aversion, overconfidence, endowment effect, mental accounting, preference reversal and so on]

### **(15) Guessing game and learning:**

52. Nagel, Rosemarie (1995). Unraveling in guessing games: an experimental study. *AER* 85, 1313-26.\*
53. Bosch-Domènech, Antonio, García-Montalvo, Jose, Nagel, Rosemarie and Satorra, Albert (2002). One, two, (three), infinity, ...: Newspaper and lab beauty-contest experiments. *AER* 91, 1687-1701.
54. Duffy, John and Nagel, Rosemarie (1997). On the robustness of behaviour in experimental "beauty contest" games. *EJ* 107, 1684-1700.
55. Weber, Roberto (2003). "Learning" with no feedback in a competitive guessing game. *GEB* 44, 134-44.
56. Kocher, Martin, Sutter, Matthias and Wakolbinger, Florian (2007). The impact of naive advice and observational learning in beauty-contest games. University of Innsbruck. Working Papers in Economics and Statistics 2007-01.

57. Kocher, Martin and Sutter, Matthias (2006). Time is money – Time pressure, incentives, and the quality of decision making. *JEBO* 61, 375-392.  
[Possible presentations: EWA and other learning models; k-level reasoning: Costa-Gomez, Miguel and Crawford, Vincent (2006)]

**(19) Auctions:**

58. Roth, Al and Ockenfels, Axel (2002). Last-minute bidding and the rules for ending second-price auctions: Evidence from eBay and Amazon auctions on the Internet. *AER* 92, 1093-1103.\*  
59. Ariely, Dan, Ockenfels, Axel and Roth, Al (2005). An experimental analysis of ending rules in Internet auctions. *RAND* 36, 891-908.\*  
60. Bolton, Gary, Katok, Elena and Ockenfels, Axel (2004). How effective are electronic reputation mechanisms? An experimental investigation. *Management Science* 50, 1587-1602.  
61. Abbink, Klaus, Irlenbusch, Bernd, Pezanis-Christou, Paul, Rockenbach, Bettina, Sadrieh, Abdolkarim and Selten, Reinhard (2005). An experimental test of design alternatives for the British 3G/UMTS auction. *EER* 49, 503-30.  
62. Sutter, Matthias, Kocher, Martin, Strauß, Sabine (2007). Individuals and teams in UMTS-licence auctions. University of Innsbruck, Working Paper.

**(21) Team decision-making:**

63. Kocher, Martin and Sutter, Matthias (2005). The decision maker matters: Individual versus group behavior in experimental beauty-contest games. *EJ* 115, 200-23.\*  
64. Cooper, David and Kagel, John (2005). Are two heads better than one? Team versus individual play in signaling games. *AER* 95, 477-509.  
65. Bornstein, Gary and Yaniv, Ilan (1998). Individual and group behavior in the ultimatum game: Are groups more “rational” players? *Exp Econ* 1, 101-08.\*  
66. Bornstein, Gary, Kugler, Tamar and Ziegelmeyer, Anthony (2004). Individual and group decisions in the centipede game: Are groups more “rational” players? *J of Exp Social Psych* 40, 599-605.  
67. Bornstein, Gary and Gneezy, Uri (2002). Price competition between teams. *Exp Econ* 5, 29-38.  
68. Irlenbusch, Bernd and Sutter, Matthias (2007). Coordination across teams and across individuals. Working Paper, University of Innsbruck.

**(23) Self-control I:**

69. Thaler, Richard and Sherfin, Hersh (1981). An economic theory of self-control. *JPE* 89, 392-406.  
70. O'Donoghue, Ted and Rabin, Matthew (2001). Choice and procrastination. *QJE* 116, 121-60.  
71. Fudenberg, Drew and Levine, David (2006). A dual self model of impulse control. *AER* 96, 1449-76.\*  
72. Malmendier, Ulrike and DellaVigna, Stefano (2006). Paying not to go to the gym. *AER* 96, 694-719.\*

**(24) Self-control II and neuro-economics:**

73. Laibson, David (1997). Golden eggs and hyperbolic discounting. *QJE* 112, 443-77.\*  
74. Camerer, Colin, Loewenstein, George and Prelec, Drazen (2005). Neuroeconomics: how neuroscience can inform economics. *JEL* 43, 9-64.  
75. Gul, Faruk and Pesendorfer, Wolfgang (2005). The case for mindless economics. Working Paper, Princeton University.  
76. Kosfeld, Michael, Heinrichs, Markus, Zak, Paul, Fischbacher, Urs and Fehr, Ernst (2005). Oxytocin increases trust in humans. *Nature* 435, 673-76.\*  
[Possible presentations: O'Donoghue, Ted and Rabin, Matthew (2007), Bernheim, Douglas and Rangel, Antonio (2007), addiction]

## Preliminary list of presentations

<i>Date</i>	<i>Topic</i>
12.11., 10:00	(7) Presentations and discussions on (1) – (6): Till Stowasser (GPS, Rabin)
19.11., 10:00	(8) Presentations and discussions on (1) – (6)
03.12., 10:00	(12) Presentations and discussions on (9) – (10)
06.12., 12:00	(13) Presentations and discussions on (9) – (10): Louise Madsen
20.12., 12:00	(15) Presentations and discussions on (13) – (14): Johannes Maier (Rabin, Drazen, Cox and Sadiraj); Caspar Siegert (endowment effect or overconfidence)
17.01., 12:00	(18) Presentations and discussions on (17): Fredrik Øvlisen (learning in the BCG)
24.01., 12:00	(20) Presentations and discussions on (19): Chris Nielsen, René Cyranek
31.01., 12:00	(22) Presentations and discussions on (21): Sebastian Strasser
07.02., 10:00	(24) Presentations and discussions on (23): Elmar Nubbemeyer