

Behavioral and Experimental Economics

This version: (First official draft)

Course instructors

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Further instructors will be asked to join the course, and may do so based on availability and interest

Application procedure

Goal and target audience

This course is aimed at all PhD students who (plan to) work experimentally and/or whose research focusses on understanding human behavior, from a variety of backgrounds (economics, management, psychology, etc.). Previous knowledge of economics, game theory and experimental methods will be helpful but not indispensable. Ideally you have already attended the Introduction in Experimental Economics course.

Application process

Email to m.kurschilgen@tum.de (before June 1). Please write *BehavExpEcon* as email subject. Applicants will be accepted on a FCFS basis.

Course objectives

The course pursues four main goals:

- (A) I will introduce you to the research frontier in behavioral and experimental economics. What are the main historical milestones? What have been the hot topics of recent years? In which direction is the literature currently moving?
- (B) You will learn to recognize some essential features of good (and not so good) behavioral/experimental papers and be able to apply that knowledge to your own work.
- (C) We will practice the essential skill of pitching one's own experimental/behavioral research effectively to others, be it at a conference, over lunch/dinner/coffee, in an interview slot with an invited seminar speaker, in a taxi, etc.
- (D) You will work in small research teams (2-3 people) with your fellow PhD students on developing your own (lab or field) experimental research idea, and submit it towards the end of the course as a 2-4-page research proposal.

Preliminary schedule

We will kick off the course on **June 17**. The other course dates are **July 5, 8, 12, 19, 22, 26, 29**. Each session will be from **9:00 to 12:00**.

Core readings

Cooperation

1. Fehr, E., & Gächter, S. (2000). Cooperation and Punishment in Public Goods Experiments. *American Economic Review*, 90(4), 980-994.
2. Herrmann, B., Thöni, C., & Gächter, S. (2008). Antisocial punishment across societies. *Science*, 319, 1362-1367.

Coordination

3. Crawford, V. P., Gneezy, U., & Rottenstreich, Y. (2008). The power of focal points is limited: Even minute payoff asymmetry may yield large coordination failures. *American Economic Review*, 1443-1458.
4. Isoni, A., Poulsen, A., Sugden, R., & Tsutsui, K. (2013). Focal points in tacit bargaining problems: Experimental evidence. *European Economic Review*, 59, 167-188.

Communication

5. Vanberg, C. (2008). Why do people keep their promises? An experimental test of two explanations. *Econometrica*, 76(6), 1467-1480.
6. Grolleau, G., Kocher, M. G., & Sutan, A. (2016). Cheating and loss aversion: Do people cheat more to avoid a loss? *Management Science*, 62(12), 3428-3438.

Distributional Preferences

7. Chen, Y., & Li, S. X. (2009). Group identity and social preferences. *American Economic Review*, 99(1), 431-57.
8. Fisman, R., Jakiela, P., Kariv, S., & Markovits, D. (2015). The distributional preferences of an elite. *Science*, 349(6254), aab0096.

Wiggle Room

9. Dana, J., Weber, R. A., & Kuang, J. X. (2007). Exploiting moral wiggle room: experiments demonstrating an illusory preference for fairness. *Economic Theory*, 33(1), 67-80.
10. Falk, A., & Szech, N. (2013). Morals and markets. *Science*, 340(6133), 707-711.
11. Di Tella, R., Perez-Truglia, R., Babino, A., & Sigman, M. (2015). Conveniently upset: Avoiding altruism by distorting beliefs about others' altruism. *American Economic Review*, 105(11), 3416-42.

Social Norms

12. Krupka, E. L., & Weber, R. A. (2013). Identifying social norms using coordination games: Why does dictator game sharing vary?. *Journal of the European Economic Association*, 11(3), 495-524.
13. Banerjee, R. (2016). On the interpretation of bribery in a laboratory corruption game: moral frames and social norms. *Experimental Economics*, 19(1), 240-267.

Gender

14. Gneezy, U., Niederle, M., & Rustichini, A. (2003). Performance in Competitive Environments: Gender Differences. *The Quarterly Journal of Economics*, 1049-1074.
15. Castillo, M., Petrie, R., Torero, M., & Vesterlund, L. (2013). Gender differences in bargaining outcomes: A field experiment on discrimination. *Journal of Public Economics*, 99, 35-48.

16. Hernandez-Arenaz, I., & Iriberrri, N. (2018). Women ask for less (only from men): Evidence from bargaining in the field. *Journal of Economic Behavior & Organization*, 152, 192-214.

Additional Readings

Game Theory

1. Colman, A. M. (2013). *Game Theory and its Applications: In the Social and Biological Sciences*. Psychology Press.
2. Lambertini, L. (2011). *Game Theory in the Social Sciences: A Reader-Friendly Guide*. Taylor & Francis.
3. Osborne, M. J. (2004). *An Introduction to Game Theory*. New York: Oxford University Press.
4. Rasmusen, E., & Blackwell B. (1994). *Games and Information*. Cambridge, MA.

Experimental Economics

5. Brandts, J., & Charness, G. (2011). The strategy versus the direct-response method: a first survey of experimental comparisons. *Experimental Economics*, 14(3), 375-398.
6. Camerer, C. (2003). *Behavioral Game Theory: Experiments in Strategic Interaction*. Princeton, NJ: Princeton University Press.
7. Charness, G., Gneezy, U., & Kuhn, M. A. (2012). Experimental methods: Between-subject and within-subject design. *Journal of Economic Behavior & Organization*, 81(1), 1-8.
8. Falk, A., & Heckman, J. J. (2009). Lab Experiments are a Major Source of Knowledge in the Social Sciences. *Science*, 326(5952), 535-538.
9. Friedman, D., & Sunder, S. (1994). *Experimental Methods: A Primer for Economists*. Cambridge, UK: Cambridge University Press.
10. Harrison, G. W., & List, J. A. (2004). Field experiments. *Journal of Economic Literature*, 42(4), 1009-1055
11. Kagel, J. H., Roth, A. E., & Hey, J. D. (1995). *The Handbook of Experimental Economics*. Princeton, NJ: Princeton University Press.
12. Levitt, S. D., & List, J. A. (2009). Field experiments in economics: The past, the present, and the future. *European Economic Review*, 53(1), 1-18.
13. Zizzo, D. J. (2010). Experimenter demand effects in economic experiments. *Experimental Economics*, 13(1), 75-98.

Behavioral Economics

14. Camerer, C. F., Loewenstein, G., & Rabin, M. (Eds.). (2011). *Advances in Behavioral Economics*. Princeton university press.
15. Kahneman D. and A. Tversky (Eds.) (2000) *Choices, Values and Frames*. New York: Cambridge University Press and the Russell Sage Foundation.
16. Kahneman, D. (2003). Maps of bounded rationality: Psychology for behavioral economics. *American Economic Review*, 93(5), 1449-1475.
17. Rabin, M. (1998). Psychology and economics. *Journal of Economic Literature*, 36(1), 11-46.

Course procedures

(A) Extant Literature

We will be reading several influential papers of experimental/behavioral economics. For each group of papers, one student will have the role of the **author**, whose task is to present the paper(s) in a convincing fashion, as if it was his/her own. And another student will have the role of a **referee**, who finds the weak spots and suggests ways of improving the paper. In particular, try to tackle the following issues (some of which are, of course, more relevant to the author and others more to the referee):

- (1) **Motivation:**
 - a. What is the broad topic of the paper? Is there a real-world example to illustrate it? Does the example fit?
 - b. What have been important earlier findings which the authors build on?
 - c. What is the research question? Is the question new? Is it important? Is it not trivial?
- (2) **Experimental Design:**
 - a. How does the research question translate into the experimental design?
 - b. What is the experimental paradigm chosen? How does the paradigm fit to the research question?
 - i) field vs. lab¹
 - ii) subject pool characteristics
 - iii) strategic game or choice task
 - iv) time horizon (one-shot, repeated, etc.)
 - v) matching protocol (partner, stranger, etc.)
 - vi) elicitation method (direct response, strategy method, role uncertainty, etc.)
 - c. What are the experimental treatments? What exactly is varied between each of the treatments? Are the treatments, in principle, able to answer the research question?
 - i) between- or within-subjects design?
 - ii) order reversal?
 - d. Which type of data will be generated by the experiment?
 - i) What are the main outcome variables?
 - ii) Are they binary, discrete, continuous, censored?
 - iii) What is an independent observation in the experiment?
 - iv) What are supplementary variables that may give some additional information of interest, e.g. about differing treatment effects for certain subgroups (e.g. gender, age, etc.)?
 - e. Can you think of reasonable (maybe even superior) alternatives to the design chosen by the authors?
- (3) **Hypotheses:**
 - a. Which predictions do the authors formulate?²
 - b. How do they relate to the treatments?
 - c. What are the Nash equilibria?
 - d. Can you think of alternative theoretical predictions?
- (4) **Results:**
 - a. What are the main findings of the paper?
 - b. How do the results answer the research question?
 - c. Robustness checks?
 - d. Possible confounds?

(B) Research Pitch

Be prepared to give (1) a 30-second **elevator pitch**, (2) a 3-minute **cocktail party pitch**, and (3) a 10-minute **job market pitch** of one of your own papers (or research proposal). Note, that you cannot use any media for this type of pitch (i.e. no Powerpoint!). The only permitted "media" are on-the-spot drawings on a board, a flip-chart, a tablet, or a Bierdeckel. The guidelines from (A) are useful to identify the important aspects to be covered in your pitch.

¹ See the taxonomy of Harrison and List (2004).

² Some papers have a more formal theory section than others. Do not despair if you struggle with the math. Try to understand the intuition and convey that to your fellow PhD colleagues.

(C) Beyond Topics

In addition to discussing important papers in Behavioral and Experimental Economics, practicing your research pitches, and starting your first (and hopefully not last) experimental project, we will look into two essential elements of life as a young academic: (i) the **job market paper**, and (ii) the **peer review process**. To have a fruitful discussion on those “beyond topics”, I kindly ask all of you to prepare the related readings posted on Moodle.

(D) Research Proposal

1. Introduction:

- Start broad and become increasingly more specific, essentially boiling down the broad topic to a specific question this research proposal may be able to answer. Start by introducing the reader into the broad topic of your proposed research. Convince the reader that this is both interesting and important. Give some good real world examples.
- What do we know and what do we not know? Which is the specific open question you want to tackle (= research question)?
- Give a brief preview of the method (experimental design) you will use to tackle the research question, and explain why it is a good approach for your specific research question.
- How does your question/setting/design relate to existing research? What have other studies found about related questions/settings? What is new about your question or about the method you use to tackle the question?

2. Experimental Design:

- Describe how you plan to test your research question. Which type of experiment do you propose, and why? See the taxonomy of Harrison and List (2004).

2.1 Paradigm

- Formalize your situation. When you boil it down to its essential features, and abstract from not so relevant details, what type of strategic game is it (i.e. a principal-agent game, a social dilemma, a coordination game, a contest game, etc.)? Who are the relevant players? What are their action spaces? What is the order of play (sequential, simultaneous)? Which information do the players have when taking an action?
- For lab experiments: explain in detail the paradigm/game that you use (e.g. payoffs, information, framing, group size, matching, repetitions, information). For field experiments: explain in detail your setting and discuss potential problems (e.g. spillover effects, imperfect measurements, selection bias). This basic paradigm/game/setting is usually called baseline.

2.2 Treatments

- Only after clearly explaining the baseline in 2.1, you should start describing your systematic and deliberate variations of the baseline aimed at answering your research question, i.e. your treatments.
- Which are the different treatments? How exactly do they differ from the baseline and from each other? If you have several treatments, show them in a small table or matrix. Give intuitive names to the treatments reflecting their key distinctive feature.
- Explain how you plan to conduct the randomization over treatments. What is an independent observation in your experiment?
- What are the main outcome variables that you will measure? Which types of variables do you measure (e.g. binary, discrete, continuous, censored)? What are supplementary variables that may give you some additional information of interest, e.g. about differing treatment effects for certain subgroups (e.g. gender, age, etc.).
- How will observed differences between your experimental treatments help you answer your research question?

Assessment

You will be expected to actively contribute to the course, in particular to the presentation and critical discussion of literature, the research pitches, and the experimental research proposal.