

Doctoral Program in Economics



Academic year 2020/21

EXPERIMENTAL ECONOMICS

Period:

IV Term

Course hours:

20

Teachers:

Luigi Luini (8 hours – course coordinator) Domenico Colucci (6 hours) Vincenzo Valori (6 hours)

Exam method:

Students are requested to write an Assignment: select one of the topics covered in the 10 classes: you can either refer to the references without a star *, or (and) discover your own references.

Prerequisites:

Microeconomics (I, II), Institutional and Evolutionary Economics, Evolutionary Game Theory

Program

1. Lab and Field Methodology (Lecturer: Luigi Luini)

This lecture is designed to familiarize the student with experimental methodology and the range of application of experimental methods in economics, in order to investigate the merits (and limits) of experiments, the principles of conducting an experiment, and provide an overview for the different type of experiments. A major advantage of experiments is that exogenous treatment variations allow identifying causal relationships between treatment and observed behavior. At the same time experimental datasets often come with small sample size, variables might be discrete, and interaction between subjects in the laboratory or repeated measurements create violations of independency assumptions.

References

-Guala, F., 2005, *The Methodology of Experimental Economics*, Cambridge UP

*Plott, C., 1987, Dimensions of Parallelism: Some Policy Applications of Experimental Methods, in: Roth, A., *Experimental Economics: Six Points of View*, Cambridge UP

-Fréchette, G.R., and Schotter, A. (eds.), 2015, *Handbook of Experimental Economic Methodology*. Oxford UP

-Levitt, S. D. and List, J. A., 2009, Field experiments in economics: The past, the present, and the future, *European Economic Review*

-Ostrom, E., 2010, Revising theory in light of experimental findings, *Journal of Economic Behavior & Organization*

2. Playing games having Social Preferences: Ultimatum, Dictator and Trust (Lecturer: Domenico Colucci and Vincenzo Valori)

In this lecture we will introduce and discuss three relevant games whose experimental results are usually at odds with classical game theory predictions. Alternative possible explanations of these deviations between theory and empirical observations will be presented with a focus on the concept of Social Preferences.

References

- Camerer, C., Thaler, R., 1995. Anomalies: Ultimatums, Dictators and Manners. *The Journal of Economic Perspectives*, 9(2), 209-219.
- Thaler, R., 1988. Anomalies: The Ultimatum Game. *The Journal of Economic Perspectives*, 2(4), 195-206.
- * Güth, W., Schmittberger, R., Schwarze, B., 1982. An experimental analysis of ultimatum bargaining. *Journal of Economic Behavior & Organization*, 3(4), 367-388.
- Binmore, K., Shaked, A., Sutton, J., 1985. Testing Noncooperative Bargaining Theory: A Preliminary Study. *The American Economic Review*, 75(5), 1178-1180.
- Gueth, W., Tietz, R., 1986. Ultimatum Bargaining for a Shrinking Cake — An Experimental Analysis. In Tietz R., Albers W., Selten R. (eds) *Bounded Rational Behavior in Experimental Games and Markets*. Lecture Notes in Economics and Mathematical Systems. Vol. 314.
- Forsythe, R., Horowitz, J.L., Savin, N.E., Sefton, M., 1994. Fairness in Simple Bargaining Experiments. *Games and Economic Behavior*. 6(3), 347-369.
- * Berg, J., Dickhaut, J., McCabe, K., 1995. Trust, Reciprocity, and Social History. *Games and Economic Behavior*. 10(1), 122-142.
- Sutter, M., Kocher, M.G., 2007. Trust and trustworthiness across different age groups. *Games and Economic Behavior*. 59(2), 364-382.
- Fehr, E., Kirchsteiger, G., Riedl, A., 1993. Does Fairness Prevent Market Clearing? An Experimental Investigation. *The Quarterly Journal of Economics*, 108(2), 437-459.
- Fehr, E., Falk, A., 1999. Wage Rigidity in a Competitive Incomplete Contract Market. *Journal of Political Economy*, 107(1), 106-134.

3. Neighborhood effects and other-regarding preferences (Lecturer: Luigi Luini)

Individual choices are seldom completely self-determined. We review the main results of the experimental literature on social preferences with particular reference to neighborhood effects.

References

- Cooper D, J H Kagel, 2013, Other-Regarding Preferences: A selective Survey of Experimental Results, in: *The Handbook of Experimental Economics*, Kagel, JH, A. Roth, Eds, Princeton UP;
- *Luini, L., A.M. Nese, P. Sbriglia 2014, Social influence in trustors' neighborhood, *Journal of Behavioral and Experimental Economics*
- Slonim, R.; A.E. Roth, 1998, Learning in High Stakes Ultimatum Games: An Experiment in the Slovak Republic, *Econometrica*
- Camerer, C.F., E. Fehr, 2006, When Does 'Economic Man' Dominate Social Behavior?, *Science*, 311, 6

4. Cooperation (Lecturers: Luigi Luini and Vincenzo Valori)

Introduction to public good games among peers, with and without punishment.

References

-Andreoni, J., J.H. Miller, 1993, Rational cooperation in the finitely repeated prisoner's dilemma: Experimental evidence, *Economic Journal*

*Casari, M; L. Luini, 2012, Peer Punishment in Teams: Expressive or Instrumental Choice, *Experimental Economics*, 241–259

*Fehr, E., Gächter, S., 2002. Altruistic punishment in humans, *Nature*, 415, 137–140.

-Fehr, E., Gächter, S., 2000. Cooperation and punishment in public goods experiments, *American Economic Review*, 980–994.

5. Team decision: Financial and symbolic incentives (Lecturers: Luigi Luini)

Discussion of how (different styles of) leadership and (different types of) incentives interact in teams.

References

-Camerer, C., R. Hogarth, 1999, The Effects of Financial Incentives in Experiments, *Journal of Risk and Uncertainty*

-Duersch, P., J Oechssler, B.C. Schipper, 2009, Incentives for subjects in internet experiments, *Economics Letters*

-Akerlof, G.A., R.E Kranton, 2005, Identity and the economics of organizations, *Journal of Economic Perspectives*

*Farolfi, F., L. Luini, 2019, The impact of transactional and charismatic leadership on cooperation: An experimental study, *wp*

6. Oligopoly: Learning to intensify and relax competition (Lecturer: Luigi Luini)

Experimental games under different information structures reveal that the level of competition is strongly influenced by the number of oligopolists, by the type of interaction (one-shot versus repeated), and by communication (compulsory versus voluntary). Presentation of experiments in which the level of competition increases/decreases.

References

-Normann, S.H., H.T. Oechssler, 2004, Two are few and four are many: Number effects in experimental oligopolies. *Journal of Economic Behavior and Organization*

*Altavilla, C., L. Luini, P. Sbriglia, 2006, Social learning in market games, *Journal of Economic Behavior and Organization*

-Fonseca, M.A., H.T. Normann, 2012, Explicit vs. tacit collusion: The impact of communication in oligopoly experiments, *European Economic Review*

-Engel, C. (2007). How much collusion? A meta-analysis of oligopoly experiments, *Journal of Competition Law and Economics*

-Abbink, K., J. Brandts, (2009) Collusion in growing and shrinking markets: Empirical evidence from experimental duopolies, WP

7. Rationality in Games (Lecturer: Domenico Colucci and Vincenzo Valori)

A way to account for subjects making unpredictable choices in experimental games is to invoke a lack of rationality. Is this a viable explanation of observed behavior (at least under certain circumstances)?

References

- * Nagel, R., 1995. Unraveling in Guessing Games: An Experimental Study. *American Economic Review*, 85(5), 1313-1326.
- Duffy, J., Nagel, R. 1997. On the robustness of behaviour in experimental 'beauty contest' games. *Economic Journal*, 107, 1684-1700.
- Ho, T., Camerer, C., Weigelt, K., 1998. Iterated Dominance and Iterated Best Response in Experimental "p-Beauty Contests". *The American Economic Review*, 88(4), 947-969.
- Bosch-Domènech, A., Montalvo, J., Nagel, R., Satorra, A., 2002. One, Two, (Three), Infinity, Newspaper and Lab Beauty-Contest Experiments. *The American Economic Review*, 92(5), 1687-1701.
- Grosskopf, B., Nagel, R., 2008. The two-person beauty contest. *Games and Economic Behavior*, 62, 93-99.
- Grehl S., Tutić A., 2015. Experimental Evidence on Iterated Reasoning in Games. *PLoS ONE*, 10(8).
- * Goeree, J., & Holt, C., 2001. Ten Little Treasures of Game Theory and Ten Intuitive Contradictions. *The American Economic Review*, 91(5), 1402-1422.

8. Rationality: Risk and Time (Lecturer: Luigi Luini)

Risk and time play different roles in economic choices: we discuss how they interact in the lab with particular reference to individual impatience and risk attitude.

References

- *Andreoni, J., P. Feldman, C. Sprenger, 2017, A stream of prospects or a prospect of streams: On the evaluation of intertemporal risks, WP
- Anderhub, V., W. Guth, U. Gneezy, D. Sonsino, 2001, On the interaction of risk and time preferences: An experimental study, *German Economic Review*
- Andersen, S., G. Harrison, M. Lau, E. Rutström, 2008, Eliciting Risk and Time Preferences, *Econometrica*
- Dohmen, T., A. Falk, D. Huffman, U. Sunde, 2010, Are Risk Aversion and Impatience Related to Cognitive Ability? *American Economic Review*
- Halevy, Y., 2008, Strotz meets Allais: Diminishing impatience and the certainty effect, *American Economic Review*

9. The Experimentics of Treatment Testing (Lecturer: Matteo M. Marini)

This lecture is conceived as an introduction to the analysis of experimental data and, in particular, to a very basic class of techniques known as treatment tests, which are designed to compare outcomes with and without a treatment (or before and after a treatment). Such techniques will be shown using Stata: datasets and programming files will be made available prior to the lecture, and for the sake of interaction it will be necessary to have Stata pre-installed on your laptop (any Stata version from 12 to 16 is ok). For any query, please do not hesitate to contact the lecturer (matteom.marini@gmail.com).

Help for new Stata users

It is highly recommended for new Stata users to join [this official free webinar](#) by StataCorp, which takes place on October 1, 2020 at 3 pm GMT (registration deadline: September 29, 2020). The organizers usually send slides and recordings to participants after the webinars, therefore registration is recommended even in case you cannot attend.

Reference

*Moffatt, P.G., 2015. *Experimetrics: Econometrics for Experimental Economics*. Chapter 3. London: Palgrave Macmillan.

10. Meta-analysis: What is it and how to conduct one (Lecturer: Matteo M. Marini)

The lecture illustrates techniques of meta-analysis and the relative advantages of conducting meta-analyses as compared with narrative literature reviews. The various steps to perform a meta-analysis will be presented in combination with Stata commands and datasets from the experimental literature.

References

*Stanley, T.D., 2001. Wheat from chaff: Meta-analysis as quantitative literature review. *Journal of Economic Perspectives*, 15(3): 131-150.

- Engel, C., 2011. Dictator games: A meta study. *Experimental Economics*, 14(4): 583-610.

- Johnson, N.D., and Mislin, A.A., 2011. Trust games: A meta-analysis. *Journal of Economic Psychology*, 32(5): 865-889.

- Lane, T., 2016. Discrimination in the laboratory: A meta-analysis of economics experiments. *European Economic Review*, 90: 375-402.

Educational objectives:

Economists' typical interests in strategic and market-based interactions raise particular methodological challenges and opportunities that are uniquely well-suited for testing economic theories with experiments. The aims are: to provide and discuss the foundations of experimental economics; theory, design and running of Lab-Field experiments; to introduce a methodology for doing experimental research and achieving high internal and external validity. To present important empirical findings in substantive areas of application: Games with social preferences, Neighborhood effects and other-regarding preferences, Public goods, Team decision, Oligopoly and learning, Rationality, Risk and time, Experimetrics, and Meta-analysis.

Bibliographical references

The reading list should be regarded as a reference list and most of the attention will be devoted to readings with a star *, which are recommended readings.

General references:

- Bardsley, N., R. Cubitt, G. Loomes, P. Moffatt, C. Starmer, R. Sugden, 2010, *Experimental Economics: Rethinking the Rules*, Princeton University Press
- Camerer, C. ,2003, *Behavioral Game Theory. Experiments in Strategic Interaction*, Princeton University Press
- Kagel, J. H. and Roth, A. E., eds, 1995, *The Handbook of Experimental Economics*, Princeton University Press
- Plott, C. R., V. L., Smith, eds., 2008, *Handbook of Experimental Economics Result in Economics*, Elsevier, North-Holland
- Friedman, D., S. Sunder, 1994, *Experimental Methods: A Primer for Economists*, Cambridge University Press
- Guala, F., 2005, *The Methodology of Experimental Economics*, Cambridge University Press
- Fréchette, G.R., and Schotter, A. (eds.), 2015, *Handbook of Experimental Economic Methodology*, Oxford UP
- Holland, P. W., 1986, Statistics and causal inference, *Journal of the American Statistical Association*

Introduction to experiments:

- Smith, V.,1962, An Experimental Study of Competitive Market Behavior, *Journal of Political Economy*
- Smith, V., 1982, Microeconomic Systems as an Experimental Science, *American Economic Review*
- Mullainathan, S., R. Thaler, 2000, *Behavioral Economics*, International Encyclopedia of the Social and Behavioral Sciences