

Doctoral Program in Economics



Academic year 2023/24

EXPERIMENTAL ECONOMICS

Period:

III Term

Course hours: 20

Teachers:

Luigi Luini (10) Vincenzo Valori (8) Matteo M. Marini (2)

Aims of the Course:

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, Intertemporal choice, and Meta-analysis.

Exam method:

As a final assignment, each student will have to select their own specific topic within the broad areas covered in the ten classes and thereby develop a well-grounded research proposal.

Program

1. Lab and Field Methodology

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

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

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

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

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

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

2. Neighborhood effects and other-regarding preferences

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

3. Playing games having Social Preferences: Ultimatum, Dictator and Trust

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.

4. Cooperation: Experiments on voluntary contributions to public goods

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.
- *Isaac, M., Walker, J., 1988. Group Size Effects in Public Goods Provision: The Voluntary Contributions Mechanism, *Quarterly Journal of Economics*, 179-199.
- Andreoni, J., 1995. Cooperation in Public-Goods Experiments: Kindness or Confusion? *American Economic Review*, 891-904
- Houser, D., Kurzban, R., 2002. Revisiting Kindness and Confusion in Public Goods Experiments, *Am. Econ. Rev.*, 1062-69
- Palfrey, B., Prisbrey, J., 1997. Anomalous Behavior in Public Goods Experiments: How Much and Why? *Am. Econ. Rev.*, 829-846

5. Team decision: Financial and symbolic incentives

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, 2020, The impact of transactional and charismatic leadership on cooperation: An experimental study, wp

6. Oligopoly: Learning to intensify and relax competition

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-

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. Cheating in the Lab

An introduction to experiments on "cheating" which are studied to understand the prevalence of antisocial behavior and the extent to which the ethics of individuals can be manipulated.

References

- Cohn, A., Fehr, E., Maréchal, M., 2014. Business culture and dishonesty in the banking industry. *Nature*, 516, 86-89.
- Cohn, A., Marechal, M., Tannenbaum, D., Zuend, C.L., 2019. Civic honesty around the globe. *Science*, 365, 70-73.
- * Fischbacher, U., Foellmi-Heusi, F., 2013. Lies in disguise: an experimental study on cheating. *Journal of the European Economic Association*, 11(3), 525-547.
- Gächter, S., Schulz, J., 2016. Intrinsic honesty and the prevalence of rule violations across societies. *Nature*, 531, 496-499.
- Kroher, M., Wolbring, T., 2015. Social control, social learning, and cheating: Evidence from lab and online experiments on dishonesty. *Social Science Research*, 53, 311-324.
- * Mazar, N., Amir, O., Ariely, D., 2008. The Dishonesty of Honest People. *Journal of Marketing Research*, 15, 633-644.

9. Intertemporal choice: models and experiments

Exponential, Hyperbolic and Quasi-hyperbolic discounting; Temptation and commitment; Sequences; Preference reversal; Borrowing and saving; Time inconsistency and commitment.

References

- Hershfield, Hal. 2011. "Future Self-continuity: How Conceptions of the Future Self Transform Intertemporal Choice." *Annals of the New York Academy of Sciences*.
- *Ericson, K.M., and D. Laibson. 2019. "Intertemporal choice." In *Handbook of Behavioral Economics: Applications and Foundations* 1. North-Holland.
- Halevy, Y., 2008, Strotz meets Allais: Diminishing impatience and the certainty effect, *American Economic Review*
- Strack, Philipp, and Dmitry Taubinsky. 2021. "Dynamic Preference "Reversals" and Time Inconsistency." Working Paper.
- O'Donoghue, Ted and Matthew Rabin. 2001. "Choice and Procrastination." *Quarterly Journal of Economics*.
- Carrera, Mariana, Heather Royer, Mark Stehr, Justin Sydnor, and Dmitry Taubinsky. 2021. "Who Chooses Commitment? Evidence and Welfare Implications." Working Paper.
- Toussaert, S. 2018. "Eliciting Temptation and Self-Control Through Menu Choices: A Lab Experiment." *Econometrica*

10. Meta-analysis: What is it and how to conduct one

This 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, which will be made available prior to the lecture. To replicate the analyses performed in class, it will be necessary to have Stata 16 or Stata 17 installed on your laptop. For any query, please do not hesitate to contact the lecturer (matteom.marini@gmail.com).

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.
- Alm, J., and Malézieux, A., 2021. 40 years of tax evasion games: A meta-analysis. *Experimental Economics*, 24: 699-750.

Bibliography

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*