

Economía Experimental (21927)

Curso 2012-13

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"Taking a course in experimental economics is a little like going to dinner at a cannibal's house. Sometimes you will be the diner, sometimes you will be part of the dinner, sometimes both." Ted Bergstrom and John Miller.

Efectivamente, tomar un curso de economía experimental es un poco como estar invitado a comer a casa de un caníbal. A veces eres el comensal, a veces pasas a formar parte de los manjares que se sirven y, a menudo, acabas siendo las dos cosas a la vez.

Si tomáis un curso de laboratorio en ciencias de la naturaleza, os pedirán que hagáis rodar bolas, diseccionareis la proverbial rana, o acabareis cubiertos de productos químicos. En todos los casos seréis siempre el experimentador, nunca el objeto del experimento. Es difícil imaginarse a un químico ocupando el sitio de un átomo de nitrógeno, o a un biólogo que estudia los reflejos de la rana, poniéndose en su lugar durante un ratito. En cambio el estudiante que tome este curso, será afortunado. En los experimentos que se hagan en clase será tanto un participante como un observador.

En los experimentos de este curso estudiaremos el comportamiento y las interacciones de la gente en situaciones interesantes desde el punto de vista económico. Y al ser tu mismo uno de estos agentes económicos que toma decisiones, vivirás de primera mano los problemas a los que se enfrenta un agente económico. Nuestra idea es que aprenderás sobre los principios de la economía -y sobre cómo hacer experimentos- tanto por haber participado en los experimentos como por el análisis de los experimentos que deberás realizar en tu capacidad de observador científico.

El curso admite un número máximo de 24 estudiantes que forman seis equipos de laboratorio. Si el número de solicitudes excediera el de plazas, la selección de los estudiantes se realizaría por méritos académicos.

La mecánica del curso

Students in the Experimental Economics course will be instructed on the experimental method and its applications, and will have to design, perform and analyze two experiments, one of them original.

The course will be conceptually divided in two parts. During the first part we will show you how economists use the laboratory tools. For that purpose we will focus on some particular series of experiments in markets and industrial organization, bargaining, public goods, coordination, learning, neuroeconomics and individual decision-making. Students will be grouped in teams of four and every team will have to *replicate* and *analyze* in class one published experiment. The presentation of the experiment in class should include a motivation, a complete description of the related literature and a careful comparative analysis of the results obtained in class.

During the second part of the course, every team will chose, in coordination with the course instructor, a topic to be experimentally explored. The experiment, this time an *original* one, will again be run and discussed in class. A complete paper on the experiment, with a motivated introduction, a description of the literature, results and conclusions including an indication of further research, plus an appendix with instructions, will have to be handed in no later than June 21st.

We expect that this course will help you to think about economics as an experimental science and to provide you with a working knowledge of techniques for conducting laboratory experiments in economics. Your grade will be based on your performance as an experimentalist, which means on your class participation, on how you run your experiments, on your class presentations, and on the term paper. Notice that there will be a mid-term exam but no final exam in this course.

You should be aware that I assume that you are familiar with the contents of *Experimental Methods: A Primer for Economists*, by Friedman and Sunder (1994). This is a short and basic book, very informative and easy to read. Some copies of the book are available in the UPF library.

The following is a more detailed Program of the course lectures.

Programa y lecturas

Los artículos marcados con un * son de lectura obligada. Normalmente, podéis acceder a la versión electrónica del artículo a través de la biblioteca. Para un visión general, en castellano, de la investigación en economía experimental os recomiendo *Economía experimental y del comportamiento* (Pablo Brañas coordinador), 2011. Para una visión detallada de lo ocurrido antes de 1995 os convendría echar un vistazo a *The Handbook of Experimental Economics*. Por último os recomiendo que miréis el *Handbook of Experimental Economics Results*, porque en él encontrareis muchas ideas para hacer vuestros experimentos. Los tres libros se encuentran en la biblioteca y también en mi despacho.

Título: *Las reglas del juego*

*Binmore, Ken (1999) "Why experiment in economics", *Economic Journal* 109, F16-F24.

*Loewenstein, George (1999) "Experimental economics from the vantage point of behavioral economics", *Economic Journal* 109, F25-F34.

Roth, Al. E. (1994) "Let's Keep the Con Out of Experimental Econ.: A Methodological Note" <http://kuznets.fas.harvard.edu/~aroth/methods.html>

Roth, A. E. (1995), "Introduction to experimental economics", in Kagel, J., A. E. Roth, *The Handbook of Experimental Economics*, Princeton, 1-98.

Smith, V. (1982), "Microeconomic Systems as an Experimental Science", *American Economic Review*, December, 923-955.

*Smith, V. (1992), *Experimental Methods in Economics*, UPF Working Paper, June. http://www.upf.edu/sites/upf/leex/web/_pdf/history/Inaugural_Lecture.pdf

Título: *Decisión individual*

Camerer, Colin (1995) "Individual decision making" in J. Kagel and A.E. Roth (editors), *Handbook of Experimental Economics*, Princeton University Press, 587-703.

Hey, John (2005) "Why We Should Not Be Silent About Noise", *Experimental Economics*, 8:325-345.

Kahneman, Daniel, and Amos Tversky (1979) "Prospect Theory: An analysis of decision under risk," *Econometrica* 47 (2), 263-291.

Kahneman, Knetsch, Thaler (1991), "Anomalies: the endowment effect, loss aversion and status quo bias", *Journal of Economic Perspectives* 5 (1), 193-206.

Wu, George, Jiao Zhang, and Richard Gonzalez (2004) "Decision under risk", *Blackwell Handbook of Judgment and Decision Making*, Nigel Harvey and Derek Koehler (Editor), Blackwell, Oxford.

Título: *Conflicto y cooperación; coordinación*

Selten, R and R. Stoecker (1986) End Behavior in Sequences of Finite Prisoner's Dilemma Supergames, *Journal of Economic Behavior and Organization* 7, 47-70.

Andreoni J. and J. H. Miller (1993), Rational Cooperation in the Finitely Repeated Prisoner's Dilemma: Experimental Evidence, *Economic Journal* 103, 570-85.

Axelrod, R. (1984) *The Evolution of Cooperation*, New York, Basic Books.

Van Huyck, J. B., R. C. Battalio, and R. O. Beil (1990), "Tacit Coordination Games, Strategic Uncertainty and Coordination Failure", *American Economic Review*, 80, 234-48.

Título: *Dictadores, ultimatus, altruismo y reciprocidad*

*Binmore, Ken (2007) Economic Man— or Straw Man? A Commentary on Henrich et al., Economics Department, University College London.

Gueth, W., R. Schmittberger, and B. Schwarz (1982), "An Experimental Analysis of Ultimatum Bargaining", *Journal of Economic Behavior and Organization*, 3, 367-388

Roth, Alvin et al. (1991), "Bargaining and Market Behavior in Jerusalem, Ljubljana, Pittsburgh, and Tokyo: Some Experimental Evidence". *American Economic Review* 81, 1068-1095.

Roth, A. E, J. K Murnighan and F. Schoumaker (1988), "The Deadline Effect in Bargaining: Some Experimental Evidence", *American Economic Review* 78, 806-823.

Prasnikar, V. and A. Roth (1992), "Considerations of Fairness and Strategy: Experimental Data from Sequential Games", *Quarterly Journal of Economics*, 865-888.

*Camerer, C. and Thaler, R. (1995) "Anomalies: Ultimatums, Dictators, and Manners", *Journal of Economic Perspectives* 9 (2), 209-219.

Charnes, Gary and Rabin, Matthew (2002) "Understanding Social preferences with Simple Games", *Quarterly Journal of Economics* 26, 51-74.

Título: Bienes públicos

*Isaac, R. M., K. McCue and C. Plott (1985), Public Goods Provision in an Experimental Environment, *Journal of Public Economics* 26, 51-74.

Ledyard, John O. (1995) "Public Goods: A Survey of Experimental Research" in Kagel, J., A. E. Roth, *The Handbook of Experimental Economics*, Princeton, 111-181.

Título: Organización de mercados

*Smith, V. (1982) "Markets as Economizers of Information: Experimental Examination of the Hayek Hypothesis", *Economic Inquiry*, April, 165-179.

Holt, Charles A. (1995), "Industrial Organization: A Survey of Laboratory Research", in Kagel, J., A. E. Roth, *The Handbook of Experimental Economics*, Princeton, 349-435.

*Holt, Charles A., L. Langan y Anne P. Villamil (1986) "Market Power in Oral Double Auctions", *Economic Enquiry*, January 1986, 107-123.

Gode, D. and S. Sunder (1993) "Allocative Efficiency of Markets with ZI Traders, *Journal of Political Economy*, 119-37.

Título: Mercados de activos: burbujas

Sunder, Shyam (1995) "Experimental Asset Markets: A Survey", in Kagel, J., A. E. Roth, *The Handbook of Experimental Economics*, Princeton, 445-495.

Plott, Charles R. (2000) "Markets as Information Gathering Tools", *Southern Economic Journal*, 67 (1), 1-15

*Smith, Vernon L., Gerry L. Suhanek and Arlington W. Williams (1988), "Bubbles, Crashes, and Endogeneous expectations in Experimental Spot Asset Markets", *Econometrica* 56(6), 1119-52.

Lei, Vivian, Charles N. Noussair and Charles R. Plott (2001), "Non-speculative Bubbles in Experimental Asset Markets: Lack of Common Knowledge of Rationality vs. Actual Irrationality", *Econometrica*, Vol 69, No. 4, 831-859.

Título: Mercado de trabajo, incentivos, salarios, contratos

Fehr Ernst, Simon Gächter and Georg Kirchsteiger (1997) "Reciprocity as a Contract Enforcement Device", *Econometrica*, 65:4, 833-60.

Fehr Ernst and Armin Falk (1999) "Wage Rigidity in a Competitive Incomplete Contract Market" *Journal of Political Economy* 107, 106-34.

*Fehr, Ernst and Simon Gächter (2000), "Fairness and Retaliation: The Economics of Reciprocity", *Journal of Economic Perspectives* 14 (3): 159-181.

Título: Subastas

*Kagel, John H. and Dan Levin (1986) "The Winner's Curse and Public Information in Common Value Auctions", *American Economic Review*, December, 894-920.

Kagel, J. H. (1995) "Auctions: A Survey of Experimental Research" in Kagel, J., A. E. Roth, *The Handbook of Experimental Economics*, Princeton, 501-557.

Cox, J., V. Smith and J. Walker (1988) "Theory and Individual Behavior of First Price Auctions", *Journal of Risk and Uncertainty* March, 61-99.

Harrison, G. (1989) "Theory and Misbehavior in First Price Auctions", *American Economic Review*, September, 749-762.

Título: Experimentos de campo

*Harrison, Glenn W.; List, John A., Field Experiments, *Journal of Economic Literature*, Volume 42, Number 4, December 2004 , pp. 1009-1055

Francisco Alpízar y Juan Camilo Cárdenas (2011), Experimentos de campo y economía del desarrollo.

Banerjee, Abhijit V. y Esther Duflo. 2009. "The Experimental Approach to Development Economics." *Annual Review of Economics*, 1:151-178.

Título: Experimentos en macroeconomía

Lian, P. and Plott, C. R. (1998) General equilibrium markets, macroeconomics and Money in a laboratory experimental environment, *Economic Theory*, 12, 21-15.

Bosch-Domènech, Antoni and J. Silvestre (1997) Credit constraints in general equilibrium: Experimental results, *Economic Journal*, 107, 444, 1445-1464.

Hey, John and DiCagno, D. (1998) Sequential markets: An experimental investigation of Clower's dual-decision hypothesis, *Experimental Economics*, 1, 63-85.

Noussair, C, Plott, C., Riezman, R. (1995) An experimental investigation of the patterns of international trade, *American Economic Review*, 85-3, 462-491.

Título: Razonamiento iterativo y neuroeconomía

Bosch-Domènech, Antoni, José G. Montalvo, Rosemarie Nagel and Albert Satorra (2002) "One, Two, (Three), Infinity, ...: Newspaper and Lab Beauty-Contest Experiments", *American Economic Review* 92 No. 5, 1687-1701.

*Alan G. Sanfey, James K. Rilling, Jessica A. Aronson, Leigh E. Nystrom, Jonathan D. Cohen (2003) "The Neural Basis of Economic Decision-Making in the Ultimatum Game", *Science* vol. 300, 13 June, 1755-1758.

*Camerer, Colin F.; George Loewenstein; and Drazen Prelec (2005) "Neuroscience can inform economics", *Journal of Economic Literature* Vol. 43, No. 1, March.

Ming Hsu, Meghana Bhatt, Ralph Adolphs, Daniel Tranel, and Colin F. Camerer (2005) 'Neural Systems Responding to Degrees of Uncertainty in Human Decision- Making' *Science* : Vol. 310. no. 5754, 1680 – 1683.

Ernst Fehr, Urs Fischbacher and Michael Kosfeld “Neuroeconomic Foundations of Trust and Social Preferences”, *American Economic Review - Papers & Proceedings* 95 (2005), 346-351.

calendario economía experimental 2013

| fecha | 17:10 a 17:50 (miercoles 14:40 a 15:20) | 17:50 a 18:30 (miercoles 15:20 a 16:00) |
|------------|---|---|
| 08/04/2013 | Las reglas del juego | Un experimento en el lab |
| 09/04/2013 | Análisis del experimento | Un poco de método |
| 10/04/2013 | Decisión individual 1 | Decisión individual 2 |
| 15/04/2013 | Decisión individual 3 | Prospect Theory |
| 16/04/2013 | Teorema de Bayes | Cooperacion y conflicto 1 |
| 17/04/2013 | Cooperacion y conflicto 2 | Bienes publicos |
| 22/04/2013 | Experimento 1a | Dictadores y ultimatum |
| 24/04/2013 | Coordinacion | Experimento 2a |
| 29/04/2013 | Lectura: Marketing | Presentacion Exp 1a y 2a |
| 30/04/2013 | Negociacion bilateral: altruismo | Experimento 3a |
| 06/05/2013 | Lectura: Psicología y economía | Lectura: Psicología y economía |
| 07/05/2013 | Negociacion bilateral: reciprocidad | Experimento 4a |
| 08/05/2013 | Experimento 5a | Presentacion Exp 3a y 4a |
| 13/05/2013 | Lectura: Causalidad | Lectura: Test de hipótesis |
| 14/05/2013 | Experimento 6a | Negociacion bilateral: reciprocidad |
| 15/05/2013 | Mercados competitivos | Mercados oligopolio y ZI |
| 21/05/2013 | Mercado trabajo | Mercado trabajo |
| 22/05/2013 | Subastas | Presentacion Exp 5a y 6a |
| 27/05/2013 | Lectura: Experimentos de campo 1 | Lectura: Experimentos de campo 2 |
| 28/05/2013 | subastas | Neuroeconomía |
| 29/05/2013 | Examen parcial | Examen parcial |

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| 03/06/2013 | CRT | Experimento 1b |
| 04/06/2013 | Experimento 2b | Experimento 3b |
| 05/06/2013 | Experimento 4b | Experimento 5b |
| 10/06/2013 | Experimento 6b | Presentacion Exp 1b y 2b |
| 11/06/2013 | Presentacion Exp 3b y 4b | video presentacions |
| 12/06/2013 | Presentación Exp 5b y 6b | video presentacions |
| 21/06/2013 | Ultimo día para entregar el trabajo escrito | |

Course Requirements

Experimental Economics 2013

Antoni Bosch-Domènech

Experimental economics is a grown, yet growing, field in economics and business. It provides a method to test theoretical predictions, to explore human behavior in specific economic environments, to help design institutions, to advise on policy and to search for patterns and regularities in economic wheeling and dealing.

This course will link issues of applied game theory, decision theory, industrial organization, markets, institutional design and macroeconomics with behavioral and experimental economics and with hybrids like neuroeconomics.

We expect that this course will help students to think that economics can be an experimental science and provide the students with a working knowledge of techniques for conducting laboratory experiments. Therefore students will be guided through a selection of experimental and behavioral economics literature with the aim that students search for interesting economic, psychological and behavioral research questions, which they address with a feasible and original experiment. The experiments will be run in class. The motivation, design, results and analysis of the experiments will be presented orally in class and in writing as in a professional paper. Students will also participate as subjects in various replications of experiments from the literature, as in the proverbial cannibal dinner.

The course will be informally divided in two parts:

I. In the first part, I, the instructor, will present selected topics on experimental economics while, you, the student will discuss and criticize my presentations as well as read the recommended reading material. In this first part, we will discuss questions like:

Do people exploit their bargaining power?
Should we graft fairness into game theory?

Yes, people seem to free ride. A lot?

"I think that you think that I think etc." Is this how people reason?

How does actual decision making deviate from utility maximization?

How can we model learning to describe observed behavior?

What market arrangements facilitate market power?

Does competitive theory predict well in double-auction markets?

Is irrational exuberance in asset markets an experimental regularity?

Is coordination easily efficient?

Does the winner's curse disappear with experience?

What can those PET scans do for Economics?

II. During the second part of the course, every student (in a group of four) will participate in designing, running and analyzing two experiments. One will be a replication of a well known experiment. The second one will be a novel experiment.

Your obligations in the course are:

- 1) Participate in the class discussion: attending the lectures and debating their contents
 - 2) Read and understand the papers from the reading list
 - 3) Answer the mid-term exam
 - 4) Replicate a classical experiment
- Choose an interesting experiment (you will have to coordinate with your fellow students so that most areas of the Program are covered with the replications)
 - Make the necessary changes in the original experiment, keeping in mind your time constraint of 40 minutes, that the number of players that will be participating may be different, that you may not use computers to run the experiment, etc.
 - Think of the incentives that you are going to be using to motivate your experimental subjects (be careful with prizes!). Your instructor will not help you with cash, unless you are very very persuasive.
 - Write the instructions extremely carefully. Do it in a neutral language and make sure that you are not pushing the subjects in any direction. Imprecise, sloppy or tendentious instructions will screw up your experiment and your grade.
 - Organize well your experiment. You have to plan and rehearse in advance all the moves, as in show biz. Make sure that you know where to seat each one of the subjects, whether you seat them at random or not, how you pick up and hand back decision sheets, what information you are going to provide during the experiment, how are you going to manage that subjects do not communicate, or how do you want them to communicate, what emergency measures are you going to take if some subjects do not show up, etc.

5) Present orally the experiment and its results

- Start with the motivation, which means the why and the how. Compare the experiment with the related literature. Describe what went well and what went wrong in your experiment. Present the results. Compare them with the original results. Explain similarities and differences.
- Take care of the presentation of your data. You want to be clear and convincing. Select the main results to be presented graphically, and present them well; the figures and tables should be readable (large font), and clearly labeled; use colors. But beware of being too fancy; you do not want your audience to be too distracted.

6) Design, run, analyze an original experiment

- The same advice as above plus THINK HARD. Don't be too ambitious, ... or too meek. It is not easy to think of a new and interesting experiment, that can be run in class, and which leads to some insights. Again, then, THINK HARD or you may bungle it. And especially, consider the following questions:
- 1. What is the causal relationship that interests me?
- 2. What is the experiment that IDEALLY I could run to capture this causal relationship?
- 3. What is your mode of statistical inference?

7) Write a paper

Of about 10-15 pages, as they are written in the professional journals that you read for this course. The paper should contain:

- Background literature
- Motivation
- Theoretic solution
- Design of experiment
- Results of experiments (summary statistic).
- Descriptive analysis of your data (model). The model can be verbal.
- Conclusion
- References
- Appendix with instructions and raw data
- Tables and Figures

The course has no final exam. Your grade will depend on how well you do all the above.