

EC 542: Experimental Methods in Economics

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1 Course Description

Experimental methods in economics have achieved prominence in the last twenty years and are well on their way to becoming important enough to have a strong influence on theory formulation, policy and the way empirical data is collected and analysed. In this course we trace the growth of this sub-field from its relatively humble origins that were concerned primarily with seeing if laboratory agents displayed equilibrium behaviour. Today the design of experiments has grown to incorporate wisdom from social and clinical psychology, sociology and anthropology and even evolutionary biology. The deviation of observed economic behaviour from the dominant neoclassical construct of the *homo-economicus* (a narrowly self interested, hyper rational optimizer) has opened the floodgates to a variety of models in the last couple of decades that explore various motivations behind economic behaviour that include altruism, reciprocity, boredom, spite, uncertainty and loss aversion. Furthermore theories pertaining to learning, dynamic choice behaviour, norm formation, and the voluntary contribution mechanism (to name a few) have been informed greatly from observation in laboratory settings. We start the course by studying the design of laboratory (also field/survey) experiments and reviewing the results from published experimental articles in scholarly journals. We then explore some new theoretical developments that aim to explain observed behaviour using models that either extend the standard Walrasian or Nash methodologies or those that diverge significantly from these dominant intellectual frameworks.

2 Evaluation Method

Open Book Examination (25%), Presentation (25%), Closed Book Examination (25%) and Term Paper (25%).

3 Main References

Friedman, D and Sunder, S. (1994) “Experimental Methods: A Primer for Economists”, Cambridge University Press

Bowles, S (2005) “Microeconomics: Behaviour, Institutions and Evolution,” Oxford University Press, New Delhi

Kagel, J and Roth, A (Ed.) (1995) “The Handbook of Experimental Economics,” Princeton University Press

Kahneman, D. and Tversky, A (2000) (Eds.) “Choices, Values and Frames,” Cambridge University Press

Gibbons, R (1992) "Game Theory for Applied Economists," Princeton University Press

4 Topics

Market and Game Theory Experiments

Andreoni, J. (1990) "Impure Altruism and Donations to Public Goods: A Theory of Warm-Glow Giving." *Economic Journal*, v. 100, June 1990, 464-477.

Andreoni, J. and John H. Miller (1993) "Rational Cooperation in the Finitely Repeated Prisoner's Dilemma: Experimental Evidence," *Economic Journal*, 103:418 (May), 570-585.

Andreoni, J. (1995) "Cooperation in Public Goods Experiments: Kindness or Confusion?" *American Economic Review*, v. 85, no. 4, September 1995, 891 - 904.

Berg, J., Dickhaut, J, and McCabe, K. (1995) "Trust, Reciprocity and Social History", *Games and Economic Behavior*, 10: 122-142

Cason, T.N. (1995), "Cheap Talk Price Signaling in Laboratory Markets," *Information Economics and Policy* 7 pp. 183-204

Cason, T. N (2003) "Testing Political Economy Models of Reform in the Laboratory" (with Vai-Lam Mui), *American Economic Review* 93 (Papers & Proceedings) (2003), pp. 208-212.

Cason, T. N and Tenorio, R (2002) "To Spin or Not to Spin? Natural Experiments from the Price is Right", *The Economic Journal*, 112:476 170 <http://www.blackwell-synergy.com/doi/full/10.1111/1468-0297.0j678>

Chakravarty, S. (2004), "Experimental Evidence on Product Adoption in the presence of Network Externalities", *Review of Industrial Organization*, 23(3_4): 233-254, 2003

Dufwenberg, M. and Gneezy, U. (2000), "Price Competition and Market Concentration: An Experimental Study." *International Journal of Industrial Organization*, 18: 7-22.

Güth, W. (1995) "On Ultimatum Bargaining Experiments-A Personal Review," *Journal of Economic Behavior and Organization*, 27:3 (August), 329-344

Kagel, J. and Levin, D. (1985) "Individual bidder behavior in first price, private value auctions", *Economics Letters*, 19: 125-128

Kagel, J. and Levin, D. (1986) The Winner's Curse and Public Information in Common Value Auctions *The American Economic Review*, Vol. 76, No. 5. (pp. 894-920

Kreps, D. M., Paul Milgrom, John Roberts, and Robert Wilson (1982), "Rational Cooperation in the Finitely Repeated Prisoners' Dilemma," *Journal of Economic Theory* 27, 245-52

Mehta, J, C. Starmer and R. Sugden (1994) "The Nature of Salience: An Experimental Investigation of Pure Coordination Games," *The American Economic Review*, Vol. 84, No. 3. (Jun., 1994), pp. 658-673

Mookerjee D and Sopher B (1994) Learning behavior in an experimental matching pennies game *Games Economic Behaviour* 7: 62-91

Ochs, J. (1995) "Games with Unique, Mixed Strategy Equilibria: An Experimental Study". *Games and Economic Behaviour*, 10, pp. 202 -217

Selten, R. and R. Stoecker (1986), "End behavior in sequences of finite repeated prisoner's dilemma supergames," *Journal of Economic Behavior and Organization*, 7, 47-70

Smith, V. L., (1989) "Theory, Experiment and Economics," *Journal of Economic Perspectives*, 3:1, 151-169.

Smith, V. L., (1994) "Economics in the laboratory," *Journal of Economic Perspectives*, 8:1, 151-169.

Van Huyck, J.B, Raymond C. Battalio, and R. O. Beil (1990) "Tacit Coordination Games, Strategic Uncertainty, and Coordination Failure," *The American Economic Review* 80(1), March 1990, 234-248.

Decision Theory Experiments

Chakravarty Sujoy, Harrison Glenn W, Haruvy Ernan E & Rutstrom Elisabet E, (2011) "Are You Risk Averse Over Other People's Money?" *Southern Economic Journal*, 77(4):901-913

Chakravarty, S. and Roy, J. (2009) "Recursive expected utility and the separation of attitudes towards risk and ambiguity: an experimental study," *Theory and Decision*, Springer, vol. 66(3): 199-228.

Holt, Charles A., and Laury, Susan K., "Risk Aversion and Incentive Effects," *American Economic Review*, 92(5), December 2002, 1644-1655.

Holt, C and Laury, S (2005) "Further Reflections on Prospect Theory," Experimental Economics Center Working Paper Series 2006-23, Experimental Economics Center, Andrew Young School of Policy Studies, Georgia State University.

Gigerenzer, G., and Brighton, H. (2009) "[Homo heuristicus: Why biased minds make better inferences.](#)" *Topics in Cognitive Science*, 1, 107–143.

Kahneman, Daniel, and Amos Tversky (1979) "Prospect Theory: An Analysis of Decision Under Risk," *Econometrica*, 47:2 (March), 263-291

Tversky, A. and Kahneman, D, 1992. "Advances in Prospect Theory: Cumulative Representation of Uncertainty," *Journal of Risk and Uncertainty*, Springer, vol. 5(4), pages 297-323, October.

Tversky, A and Kahneman, D (1979) "Prospect Theory: An Analysis of Decision under Risk", *Econometrica*, 47(2), 263–292

Field and Survey Experiments

Banerjee, A, S. Cole, Duflo, E., Linden, L (2007) "Remedying Education: Evidence from Two Randomized Experiments in India," Poverty Action Lab Working Paper.

Bertrand, Marianne and Sendhil Mullainathan (2004) "Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination," *American Economic Review*, 2004, 94, (4), 991-1013

Binswanger, Hans P. (1981) Attitudes Toward Risk: Experimental Measurement in Rural India, *American Journal of Agricultural Economics* 62:3, pp. 395–407

Carpenter, Jeffrey P., Glenn W. Harrison and John A. List (2005) List Field Experiments in Economics: An Introduction, In J. Carpenter, G.W. Harrison and J.A. List (eds.), *Field Experiments in Economics* (Greenwich, CT: JAI Press, Research in Experimental Economics, Volume 10, 2005).

Sujoy Chakravarty, Carine Sebi, E. Somanathan, and Emmanuel Theophilus (2009) "The Demographics of cooperation: Evidence from a field experiment in the Gori-Ganga Basin" CSH Occasional paper No. 29.

Fershtman, C. and Uri Gneezy (2001) "Discrimination In A Segmented Society: An Experimental Approach" *The Quarterly Journal of Economics* 116(1), 351-377

Glenn W. Harrison and John A. List (2004) "Field Experiments," *Journal of Economic Literature*, 42(4), December 2004, 1013-1059.

Henrich, Joseph; Robert Boyd, Samuel Bowles, Colin Camerer, Herbert Gintis, Richard McElreath and Ernst Fehr (2001) "In Search of Homo Economicus: Experiments in 15 Small-Scale Societies," *American Economic Review* 91:2, pp. 73–79.

Lucking-Reiley, D. (1999) "Using Field Experiments to Test Equivalence Between Auction Formats: Magic on the Internet." *American Economic Review*, December 1999, vol. 89, no. 5, pp.1063-1080.

Richard Sosis and Bradley Ruffle (2003) "Religious Ritual and Cooperation: Testing for a Relationship on Israeli Religious and Secular Kibbutzim," *Current Anthropology*, 44:5, 713-722.

Review Papers

Chakravarty, S. (2012) "Experimental Study of Behaviour in Economics: Origins and Current Directions" *Contemporary Issues and Ideas in Social Sciences*, 7: 2012.

Chakravarty, S., Friedman, D., Gupta, G., Mitra, S. and Sunder, S. (2011) "Experimental

Economics: A Survey,” *Economic and Political Weekly*, August 27, 2011, *xlv*: 35

Internet Archives

Charles Holt’s bibliography at Virginia: <http://people.virginia.edu/~cah2k/y2k.htm>

Dean Karlan’s field experiment bibliography at Yale:
<http://karlan.yale.edu/fieldexperiments/index.php>