



DEPARTMENT OF ECONOMICS

ECON318: Behavioural Economics (18 Points)

Semester 1 2024

1. COURSE DESCRIPTION

Economic models often presume (at least implicitly) that decision-makers are rational, self-interested, fully informed, and endowed with perfect foresight. It is not difficult to find violations of each of these precepts in real-world economic behaviour, and the study of the “limits to rationality” has become a vibrant and rapidly growing field within economics. In this paper we will investigate some of the more “psychological” phenomena observed in the marketplace. In the process we will review relevant theories from within economics, as well as evidence from other disciplines such as social psychology, anthropology, and neuroscience.

Prerequisites. 18 200-level ECON points; or consent of the instructor.

Lectures. Three hours per week: See eVision for meeting times and locations.

2. LEARNING AIMS AND OBJECTIVES

This course aims to introduce students to key theories, issues and problems in the area of behavioural economics. Particular emphasis will be placed upon considering evidence from a broad spectrum of the behavioural sciences, and incorporating this evidence into economic theory.

3. COURSE STAFF

**Course Coordinator
and Lecturer**

Associate Professor Trent Smith
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Office hours: Tuesday/Wednesday 12-1

Lecturer

Professor Nathan Berg
Room 610A, 6th Floor, Otago Business School
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Reception

Janet Bryant
Room 601A, 6th Floor, Otago Business School
Office hours: 11.00am – 12.00pm and 2.00 – 3.00pm daily, unless otherwise

If you are missing copies of handouts or other course materials, please download these from Blackboard.

4. NOTICES & BLACKBOARD

The Department of Economics is housed on the 6th Floor of the Otago Business School.

Administrative notices and assignments will be posted on Blackboard: <http://blackboard.otago.ac.nz> (enter your username & password). Slides will also be posted on Blackboard when available. Blackboard allows us to e-mail the whole class. As such, e-mails will be sent to your student e-mail address, so it is important that you check your student e-mail regularly. If you have any difficulties using Blackboard, contact the ITS Library Helpdesk on 479 8888 or e-mail helpdesk@otago.ac.nz.

5. CLASS REPRESENTATIVES

One or more Class Reps will be chosen from among the students enrolled in the class sometime during the 1st week of lectures. Class Reps are able to discuss problems with you and, if you wish, take them on your behalf to the lecturer or to the Head of Department.

6. WORKLOAD

You should plan to devote 12 hours per week to this course. This is based on the University's 'rule of thumb' for an 18 point Semester course. Three of these hours are spent in lectures each week—leaving nine hours per week for your own reading and study and revision.

7. MATHS IN THIS PAPER

While a good part of the content of this paper will be devoted to the study of empirical evidence across the behavioural sciences, we will also aim to develop formal (i.e., mathematical) economic models of the behavioural phenomena we study. Familiarity with

differential calculus is not required but the ability to solve simple systems of linear equations is likely to be advantageous for students. If you are unfamiliar with these concepts, there is time to catch up, but you will need to put in effort.

8. ACCESS TO LECTURE RECORDINGS

Students are strongly encouraged to attend—and participate actively in—lectures on a regular basis, as this is good learning practice and contributes to the learning environment for others. If you are ill or for some other reason are unable to attend a given lecture, recordings will be made available via Blackboard. You will find that these recordings are freely available on the Echo360 system, but usage is tracked. Guidance on appropriate usage of lecture recordings and penalties for diverging from specified limits will be provided in lecture and on Blackboard.

Assessments will assume that you have attended and understood every lecture. If you have a disability or other reason for being unable to either attend in person or watch lecture recordings (e.g., you are relying on written notes only), you *must* inform the Course Coordinator so that some accommodation can be made.

9. ASSESSMENT

Assessment will consist of two midterm tests (worth 25% each), six short essays (worth 30% in total), and two compulsory class discussion exercises, which will include both in-class and online (discussion board) components (worth 10% each).

Short Essays. Students will be expected to submit six short essays over the course of the semester. Maximum length will vary from 300 to 500 words, and specific prompts will be provided in each case. The use of writing aids (including both human editorial advice and software-based or artificial intelligence tools such as ChatGPT) in formulating your essays is encouraged but not required. Details on essay requirements and assessment criteria will be provided in lecture and made available on Blackboard.

Midterm Tests. The midterm tests will take place during lecture time. The tentative dates for 2024 are **Wednesday April 10** and **Wednesday May 29**). If you are unable to attend on either of these dates, please inform the Course Coordinator no later than the end of the first week of classes.

Class Discussions. Compulsory in-class discussions will take place (tentatively) on **Thursday April 18** and **Thursday May 23**). If you are unable to attend on either of these dates, please inform the Course Coordinator no later than the end of the first week of classes. Both in-class discussions will be followed by an online discussion board exercise. Further details will be provided in lecture and on Blackboard.

Final Examination. There will be no final examination.

10. A NOTE ON DISHONEST PRACTICE

Any student found responsible for dishonest practice (for example, copying, the use of unauthorised material in tests, etc.) in relation to any piece of work submitted for assessment shall be subject to the University's dishonest practice regulations and may result in various penalties, including forfeiture of marks for the piece of work submitted, a zero grade for the paper, or, in extreme cases, exclusion from the University.

11. TOPICS LIST

A tentative list of topics to be covered is given below. Actual topics covered may vary, owing to both student interest and time constraints.

- (1) Introduction: rational choice, behavioural economics, and philosophy of science
- (2) Uncertainty: expected utility theory (EU), EU anomalies, subjective probability, risk attitudes, theory and practice of experimental economics
- (3) Intertemporal Choice: hyperbolic discounting, addiction and habit formation, time inconsistency and self-control
- (4) Evolutionary Mismatch: search theory, learning models, applied to dietary choice and sales techniques
- (5) Neuroeconomics: what's going on inside the decision-maker's head
- (6) Economics of Obesity (if time allows): "rational overeating" in neoclassical and behavioural perspectives
- (7) Market Manipulation: private information, herding, propaganda

12. TEXTBOOKS AND OTHER READINGS

Though the lectures will not closely follow any single textbook, a good overview of many topics we will cover is provided by *An Introduction to Behavioral Economics, 2nd edition* by Nick Wilkinson and Matthias Klaes (2012). Other readings will be made available via Blackboard. The list of Selected Readings that follows should be taken as indicative of the breadth of scholarly knowledge students can expect to draw upon in this paper. Specific reading assignments will be given as the semester progresses.

13. SELECTED READINGS

- Angier, N. (2009). The biology behind the milk of human kindness. *New York Times*.
- Ashraf, N., Camerer, C. F., and Loewenstein, G. (2005). Adam Smith, Behavioral Economist. *The Journal of Economic Perspectives*, 19(3):131–145.
- Baron-Cohen, S., Leslie, A. M., and Frith, U. (1986). Mechanical, behavioural and intentional understanding of picture stories in autistic children. *British Journal of Developmental Psychology*, 4(2):113–125.
- Beauchamp, J. P., Cesarini, D., Johannesson, M., van der Loos, M., Koellinger, P., Groenen, P., Fowler, J. H., Rosenquist, J. N., Thurik, R., and Christakis, N. A. (2011). Molecular genetics and economics. *Journal of Economic Perspectives*, 25(4):57–82.
- Becker, G. S., Grossman, M., and Murphy, K. M. (1994). An empirical analysis of cigarette addiction. *American Economic Review*, 84:396–418.
- Becker, G. S. and Murphy, K. M. (1988). A theory of rational addiction. *Journal of Political Economy*, 96(4):675–700.
- Berg, N. (2014). The consistency and ecological rationality approaches to normative bounded rationality. *Journal of Economic Methodology*, 21(4):375–395.

- Berg, N. (2017). Smart people’s rational mistakes. *Handbook of Behavioral Economics and Smart Decision-Making: Rational Decision-Making Within the Bounds Of Reason*.
- Berg, N. and Hoffrage, U. (2008). Rational ignoring with unbounded cognitive capacity. *Journal of Economic Psychology*, 29(6):792–809.
- Bernays, E. L. (1928). *Propaganda*. Routledge.
- Boyd, R. and Silk, J. B. (2012). *How Humans Evolved, Sixth Edition*. W.W. Norton, New York.
- Camerer, C., Loewenstein, G., and Prelec, D. (2005). Neuroeconomics: How neuroscience can inform economics. *Journal of Economic Literature*, 43(1):9–64.
- Cameron, L. A. (1999). Raising the stakes in the ultimatum game: Experimental evidence from indonesia. *Economic Inquiry*, 37(1):47–59.
- Cartwright, E. (2011). *Behavioral Economics*. Routledge, New York.
- Chen, M., Lakshminarayanan, V., and Santos, L. (2006). How basic are behavioral biases? Evidence from capuchin monkey trading behavior. *Journal of Political Economy*, 114(3):517–537.
- Chiara, G. D. (1999). Drug addiction as a dopamine-dependent associative learning disorder. *European Journal of Pharmacology*, 375:13–30.
- Clark, C. W. and Ekman, J. (1995). Dominant and subordinate fattening strategies: a dynamic game. *Oikos*, 72:205–212.
- Cosmides, L. (1989). The logic of social exchange: Has natural selection shaped how humans reason? Studies with the Wason selection task. *Cognition*, 31(3):187–276.
- Darby, M. R. and Karni, E. (1973). Free competition and the optimal amount of fraud. *Journal of Law and Economics*, 16(1):67–88.
- Dasgupta, P. and Maskin, E. (2005). Uncertainty and hyperbolic discounting. *The American Economic Review*, 95(4):1290–1299.
- Dobzhansky, T. (1973). Nothing in biology makes sense except in the light of evolution. *The American Biology Teacher*, 35(3):125–129.
- Farooqi, I. S. and O’Rahilly, S. (2005). Monogenic obesity in humans. *Annual Review of Medicine*, 56(1):443–458. PMID: 15660521.
- Ferrie, J., Shipley, M., Marmot, M., Stansfeld, S., and Smith, G. (1998). An uncertain future: The health effects of threats to employment security in white-collar men and women. *American Journal of Public Health*, 88(7):1030–1036.
- Friedman, M. (1953). The methodology of positive economics. In Friedman, M., editor, *Essays in Positive Economics*, chapter 1. University of Chicago Press.
- Garcia, J. and Koelling, R. A. (1966). Relation of cue to consequence in avoidance learning. *Psychonomic Science*, 4(3):123–124.
- Gazzaniga, M. S. (1998). The split brain revisited. *Scientific American*, 279(1):50–55. PMID: 9648298.

- Gazzaniga, M. S. (2000). Cerebral specialization and interhemispheric communication: Does the corpus callosum enable the human condition? *Brain*, 123:1293–1326.
- Gigerenzer, G. (2005). I think, therefore i err. *Social Research: An International Quarterly*, 72(1):195–218.
- Gigerenzer, G. and Berg, N. (2010). As-if behavioral economics: Neoclassical economics in disguise? *As-If Behavioral Economics*, pages 1000–1033.
- Goodwin, M. (2012). *Economix: How Our Economy Works (and Doesn't Work)*, in *Words and Pictures*. Abrams.
- Grether, D. M. and Plott, C. R. (1979). Economic theory of choice and the preference reversal phenomenon. *American Economic Review*, 69(4):623–638.
- Gruber, J. and Köszegi, B. (2001). Is addiction ‘rational’? theory and evidence. *The Quarterly Journal of Economics*, 116(4):1261–1303.
- Hager, N. (2014). *Dirty politics: How attack politics is poisoning New Zealand's political environment*. Nelson: Craig Potton Publishing.
- Hanson, J. and Yosifon, D. (2004). The situational character: A critical realist perspective on the human animal. *Georgetown Law Journal*, 93(1):1–179.
- Harbaugh, R. (2005). Prospect theory or skill signaling? Working Paper 2005-06, Indiana University, Kelley School of Business, Department of Business Economics and Public Policy.
- Holt, C. A. (2007). *Markets, Games, & Strategic Behavior*. Pearson, Boston.
- Kahneman, D., Knetsch, J. L., and Thaler, R. H. (1990). Experimental tests of the endowment effect and the coase theorem. *Journal of Political Economy*, 98(6):1325–1348.
- Kahneman, D. and Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2):263–291.
- Kosfeld, M., Heinrichs, M., Zak, P. J., Fischbacher, U., and Fehr, E. (2005). Oxytocin increases trust in humans. *Nature*, 435(7042):673–676.
- Loewenstein, G. and Thaler, R. H. (1989). Anomalies: Intertemporal choice. *The Journal of Economic Perspectives*, 3(4):181–193.
- Loomes, G. and Sugden, R. (1982). Regret theory: An alternative theory of rational choice under uncertainty. *The Economic Journal*, 92(368):805–824.
- Lusk, J. (2013). The food police: A well-fed manifesto about the politics of your plate. Crown Forum.
- McDermott, R., Fowler, J. H., and Smirnov, O. (2008). On the evolutionary origin of prospect theory preferences. *The Journal of Politics*, 70(02):335–350.
- Nelson, R. J. (2011). *An Introduction to Behavioral Endocrinology, Fourth Edition*. Sinauer, Sunderland, MA.

- Offer, A., Pechey, R., and Ulijaszek, S. (2010). Obesity under affluence varies by welfare regimes: The effect of fast food, insecurity, and inequality. *Economics and Human Biology*, 8:297–308.
- Plott, C. R. and Zeiler, K. (2005). The willingness to pay-willingness to accept gap, the ‘endowment effect,’ subject misconceptions, and experimental procedures for eliciting valuations. *American Economic Review*, 95(3):530–545.
- Rabin, M. (1998). Psychology and economics. *Journal of Economic Literature*, 36(1):pp. 11–46.
- Rodrigues, S. M., Saslow, L. R., Garcia, N., John, O. P., and Keltner, D. (2009). Oxytocin receptor genetic variation relates to empathy and stress reactivity in humans. *Proceedings of the National Academy of Sciences*, 106(50):21437–21441. PMID: 19934046.
- Sanfey, A. G., Rilling, J. K., Aronson, J. A., Nystrom, L. E., and Cohen, J. D. (2003). The neural basis of economic decision-making in the ultimatum game. *Science*, 300(5626):1755–1758. PMID: 12805551.
- Sapolsky, R. M. (1990). Stress in the wild. *Scientific american*, 262(1):116–123.
- Smith, A., Bernheim, B. D., Camerer, C. F., and Rangel, A. (2014). Neural activity reveals preferences without choices. *American Economic Journal: Microeconomics*, 6(2):1–36.
- Smith, T. G. (2004). The McDonald’s equilibrium: Advertising, empty calories, and the endogenous determination of dietary preferences. *Social Choice and Welfare*, 23(3):383–413.
- Smith, T. G. (2009). Reconciling psychology with economics: Obesity, behavioral biology, and rational overeating. *Journal of Bioeconomics*, 11(3):249–282.
- Smith, T. G. and Tasnádi, A. (2007). A theory of natural addiction. *Games and Economic Behavior*, 59:316–344.
- Smith, T. G. and Tasnádi, A. (2014). The economics of information, deep capture, and the obesity debate. *American Journal of Agricultural Economics*, 96(2):533–541.
- Sozou, P. (1998). On hyperbolic discounting and uncertain hazard rates. *Proceedings of the Royal Society of London B: Biological Sciences*, 265(1409):2015–2020.
- Stigler, G. J. (1971). The theory of economic regulation. *The Bell Journal of Economics and Management Science*, 2(1):3–21.
- Stigler, G. J. and Becker, G. S. (1977). De gustibus non est disputandum. *American Economic Review*, 67(2):76–90.
- Strotz, R. H. (1956). Myopia and inconsistency in dynamic utility maximization. *Review of Economic Studies*, 23:165–180.
- Tung, J., Barreiro, L. B., Johnson, Z. P., Hansen, K. D., Michopoulos, V., Toufexis, D., Michelini, K., Wilson, M. E., and Gilad, Y. (2012). Social environment is associated with gene regulatory variation in the rhesus macaque immune system. *Proceedings of the National Academy of Sciences*, 109(17):6490–6495.

- Wilkinson, N. and Klaes, M. (2012). *An introduction to behavioral economics*. Palgrave Macmillan.
- Wisman, J. D. and Capehart, K. W. (2010). Creative destruction, economic insecurity, stress, and epidemic obesity. *American Journal of Economics and Sociology*, 69(3):936–982.