



USAID

ВІД АМЕРИКАНСЬКОГО НАРОДУ

ANTI-CORRUPTION STUDIES

THE MASTER'S PROGRAM

COURSE

**BEHAVIOURAL
ECONOMICS:
CORRUPTION RESEARCH
METHOD**

2020/21



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Room: 4-100

Course Description

This course introduces students to a growing field of behavioral economics with a view of (anti-)corruption, which uses insights from psychology and experimental data to improve economic models of behavior to develop effective anti-corruption policies. Our goal is to understand how predictions of economic models change when we incorporate phenomena such as altruism, loss aversion, and self-control problems in the context of (anti-)corruption. We will collect data from classroom experiments and will try to explain the observed behavior using both standard and behavioral models. Although we will question some assumptions of standard economic models, we will not cast away the fundamental tools and techniques of mainstream economics. We will continue to rely on individual-based, utility-driven models, mathematical formalization of assumptions, and theories that can be tested with data.

Course Objectives

At the completion of the course, you will:

learn to:

- ▷ (1) articulate the predictions of standard economic models;
- ▷ (2) write down and solve alternative models that explain actual behavior of real economic agents;
- ▷ (3) apply appropriate behavioral models to real world situations and discuss policy implications in the field of anti-corruption,
- ▷ (4) analyze individuals behavior and economic data in order to design more effective anti-corruption policies;
- ▷ (5) explain and interpret the principles underlying decision-making and compare the nudging approach to other methods of behavior change;
- ▷ (6) learn how to critique, design and interpret the results of experiments;
- ▷ (7) design nudges and decision-tools to help people make better decisions;
- ▷ (8) conduct experiments in the sphere of economics and (anti-)corruption.

SCHEDULE

Nº	Topic	Date	Time	Type of class	Notes
1	Introduction to Behavioral Economics	24.09.2020	18:00-18:30	Lecture	
2	Using Experiments in Economics	24.09.2020	18:30-19:20	Lecture	
3	Model of Utility Maximization	24.09.2020	19:30-20:50	Lecture	
4	Experiments 1, 2, 3	25.09.2020	18:00-19:20	Workshop	
5	Evidence of Other-Regarding Preferences	25.09.2020	19:30-20:50	Lecture	
6	Models of Other-Regarding Preferences	25.09.2020	19:30-20:50	Lecture	
7	Applications of Other-Regarding Preferences	26.09.2020	10:00-11:20	Lecture	
8	Experiments 4, 5, 6	26.09.2020	11:40-13:00	Workshop	
9	Model of Expected Utility	26.09.2020	13:30-14:50	Lecture	
10	Model of Prospect Theory	26.09.2020	13:30-14:50	Lecture	
11	Application of Prospect Theory	26.09.2020	15:00-16:20	Lecture	
12	Solving Problems using Prospect Theory	26.09.2020	15:00-16:20	Lecture	
13	Review for Exam 1	26.09.2020	16:30-17:50		
14	Exam 1	26.09.2020	16:30-17:50		
15	Experiments 7, 8, 9	02.10.2020	18:00-19:20	Workshop	
16	Model of Exponential Discounting	02.10.2020	18:00-19:20	Lecture	
17	Model of Hyperbolic Discounting	02.10.2020	19:30-20:50	Lecture	
18	Application of Hyperbolic Discounting	02.10.2020	19:30-20:50	Lecture	
19	Solving Problems using Hyperbolic Discounting	09.10.2020	18:00-19:20	Lecture	
20	Experiments 10, 11, 12	09.10.2020	18:00-19:20	Workshop	
21	Behavioral Game Theory	09.10.2020	19:30-20:50	Lecture	
22	Level-k Model	09.10.2020	19:30-20:50	Lecture	
23	Application of Level-k Model	16.10.2020	18:00-19:20	Lecture	
24	Cognitive Biases	16.10.2020	18:00-19:20	Lecture	
25	Review for exam 2	16.10.2020	19:30-20:50		
26	Exam 2	16.10.2020	19:30-20:50		

Course Format

The course will combine lectures and experiments. In lectures, you will learn how to analyze economic behavior using standard economic models, and how to incorporate behavioral insights into such models. In experiments, you will actually make economic decisions and play different economic games with other students.

Course Materials

- 👁 Power-Point slides
- 👁 Handouts

Evaluation. Course rules and requirements. Grade for the course:

ESTS Grade	Scores (Points)	Signification
A	91-100	Excellent
B	81-90	Very Good
C	71-80	Good
D	66-70	Satisfactory
E	60-65	Sufficient
F	30-59	Insufficient
F	0-29	Failed

Your grade will be determined by your performance on homework assignments, experiments, one midterm exam, and one final exam. The breakdown of the grade calculation:

Homework Assignments 30%	Experiments 10%	Midterm Exam 30%	Final Exam 30%	Total 100%
1 to 30 points	1 to 10 points	1 to 30 points	1 to 30 points	max. 100 points

Problem sets will be given in the class. You will have to complete each problem set before the specified deadline. You are encouraged to work in groups, but each student must submit their own work and will be graded according to their own answers.

Throughout the semester, you will have an opportunity to play experimental games against other students. Participation in the experiments is mandatory, and thus failing to participate will reduce your grade. No preparation is required prior to the games.

This course will include a midterm and a final exam. Both exams are closed book and closed notes. Both exams will test knowledge based on class discussions and accompanying power-point handouts. The midterm exam will cover the material from the first half of the course, while the final exam will cover the material from the second half of the course (e.g., the final will not be cumulative).

Academic Integrity

All students in this course are expected to adhere to standards of academic integrity. Cheating, plagiarism, misrepresentation, and other forms of academic dishonesty will not be tolerated. This includes, but is not limited to: consulting with another person during an exam, turning in written work that was prepared by someone other than you, making minor modifications to the work of someone else and turning it in as your own, or engaging in misrepresentation in seeking a postponement or extension. Ignorance will not be permitted as an excuse. If you are not sure whether something you plan to submit would be considered either cheating or plagiarism, it is your responsibility to ask for clarification. When your name appears on a group product for a class, you are responsible for the integrity of the work, even if you did not personally write the offending material.

Course Topic Outline

The list of topics is tentative. The speed at which material is covered and to some extent content will be determined endogenously as the course progresses. Therefore, I reserve the right to make any changes to the course outline at any time. Announcements will be made in class for upcoming topics to be covered.

Course rules and requirements:

Lectures, workshops and case-study:

Active preparation, discussion and participation is required. During the course there can be some changes to course requirements and you will be informed via the group mailing list and oral announcement. Students are responsible for being aware of changes even if they are absent from the lessons. Please, turn off your phones during the lessons and don't be late. You can use a laptop during workshops.

Course e-mail:

Program, announcements and study materials will be available of the ACREC website: <https://acrec.org.ua/>

Group mailing list:

You will be informed by mailing list of curators. Students are responsible for being aware of all updates.

Rules of email communication:

Please, send emails only for:

- ▷ 1) an appointment for additional individual consultations;
- ▷ 2) a notice of absence from the lesson and reasons for it;
- ▷ 3) a request for sending announcements again, changes to the program, schedule or additional course materials.

Questions about course materials, lessons or credit procedure should be asked after the lessons or during individual consultation.

Getting extra points:

Extra points are not allowed in this course except the ones that are foreseen in the course.

Rules during the lesson:

Please, turn off your phones during the lectures and don't be late to the lessons. Discussions are to be lively and interesting, but express your comments politely. Please, respect others' point of view and express your disagreement with the arguments of others in a polite form.

Ethical rules for writing tasks:

All students must work on projects individually. Group work can only be conducted during the joint project. Students are required to make references in their work and cite all sources and publications. Research without references is considered to be plagiarism. Plagiarism is unacceptable and will lead to the loss of the right to receive credits for the course.

PLAN OF THE COURSE “BEHAVIOURAL ECONOMICS: CORRUPTION RESEARCH METHOD”



Course book (optional):

- 👁️ Dhimi, S. (2016). The Foundations of Behavioral Economic Analysis. Oxford University Press.



Recommended books:

- 👁️ Kahneman, D. (2011). Thinking, Fast and Slow. Macmillan.
- 👁️ Ariely, D. (2008). Predictably Irrational. New York: Harper Collins.
- 👁️ Thaler, R.H., & Sunstein, C.R. (2008). Nudge: Improving Decisions about Health, Wealth, and Happiness. Yale University Press.

LECTURE 1: INTRODUCTION TO BEHAVIORAL ECONOMICS IN CONTEXT OF (ANTI-) CORRUPTION STUDIES

Plan:

- 🕒 What is economics?
- 🕒 What are the methods of economic research?
- 🕒 What is behavioral economics?
- 🕒 What kind of research tools do behavioral economists use?
- 🕒 How to learn (anti-)corruption through the prism of behavioural economics



Required literature

- 🕒 Dhami, S. (2016). The Foundations of Behavioral Economic Analysis. Oxford University Press.
- 🕒 Gneezy, A., Gneezy, U., & Lauga, D.O. (2014). A reference-dependent model of the price-quality heuristic. *Journal of Marketing Research*, 51(2), 153-164.
- 🕒 Rao, A.R., & Monroe, K.B. (1989). The effect of price, brand name, and store name on buyers' perceptions of product quality: An integrative review. *Journal of Marketing Research*, 351-357.



Additional literature

- 🕒 Thomas A. Rietz a, Roman M. Sheremeta b,*
Timothy W. Shields b, Vernon L. Smith. (2013). Transparency, efficiency and the distribution of economic welfare in pass-through investment trust games. *Journal of Economic Behavior & Organization* 94 (2013) 257-267
- 🕒 Jared Rubin, Roman Sheremeta (2016) Principal-Agent Settings with Random Shocks. *Management Science* 62(4):985-999. <http://dx.doi.org/10.1287/mnsc.2015.2177>

LECTURE 2: USING EXPERIMENTS IN ECONOMICS WITH A VIEW OF (ANTI-)CORRUPTION

Plan:

- ▶ What are the common problems when inferring causality?
- ▶ How to infer causality?
- ▶ Why do we use experiments in economics?
- ▶ What are the principles of running economic experiments?
- ▶ What is the difference between laboratory and field experiments?
- ▶ How to know if the study is internally valid?
- ▶ How to know if the study is externally valid?



Required literature

- ▶ Dhami, S. (2016). The Foundations of Behavioral Economic Analysis. Oxford University Press.
- ▶ Fehr, E., & Gächter, S. (2000). Cooperation and punishment in public goods experiments. *American Economic Review*, 90(4), 980-994.
- ▶ Hertwig, R., & Ortmann, A. (2001) Experimental practices in economics: A methodological challenge for psychologists? *Behavioral and Brain Sciences*, 24, 383-451.
- ▶ Samek, A., & Sheremeta, R. M. (2017). Selective recognition: How to recognize donors to increase charitable giving. *Economic Inquiry*, 55(3), 1489-1496.
- ▶ Smith, V.L. (1994). Economics in the laboratory. *Journal of Economic Perspectives*, 8, 113-131.



Additional literature

- ▶ Thomas A. Rietz, Eric Schniter, Roman M. Sheremeta and Timothy W. Shields. 2017. Trust, reciprocity, and rules. *Western Economic Association International*
- ▶ Sheremeta, Roman and Smith, Vernon. 2017. The Impact of the Reformation on the Economic Development of Western Europe. *MPRA Paper No. 87220*
- ▶ Pedro Rey-Biel, Roman Sheremeta, Neslihan Uler. 2018. When Income Depends on Performance and Luck: The Effects of Culture and Information on Giving

LECTURE 3. MODEL OF UTILITY MAXIMIZATION

Plan:

- 👁 Controlled economic experiments
- 👁 Principles of economic experiments
- 👁 Internal versus external validity
- 👁 The concept of utility
- 👁 Foundation of the utility function



Required literature

- 👁 Debreu, G. (1954). Representation of a preference ordering by a numerical function. *Decision Processes*, 3, 159-165.
- 👁 Huber, J., Payne, J. W., & Puto, C. (1982). Adding asymmetrically dominated alternatives: Violations of regularity and the similarity hypothesis. *Journal of Consumer Research*, 9(1), 90-98.
- 👁 Iyengar, S.S., & Lepper, M.R. (2000). When choice is demotivating: Can one desire too much of a good thing? *Journal of Personality and Social Psychology*, 79(6), 995-1006.



Additional literature

- 👁 Lichtenstein, S., & Slovic, P. (1971). Reversals of preference between bids and choices in gambling decisions. *Journal of Experimental Psychology*, 89(1), 46-55.
- 👁 Lecture-workshop 4. Lecture-workshop 4. Interdisciplinary experiments in the sphere of economics and (anti-)corruption 1, 2, 3

LECTURE-WORKSHOP 4. EXPERIMENTS 1,2,3

LECTURE 5: OTHER-REGARDING PREFERENCES (EVIDENCE)

Plan:

- 👁 How would you characterize a homo economicus individual?
- 👁 Ultimatum game: standard theory versus actual data
- 👁 Dictator game: standard theory versus actual data
- 👁 Trust game: standard theory versus actual data
- 👁 Public goods game: standard theory versus actual data



Required literature

- 👁 Berg, J., Dickhaut, J., & McCabe, K. (1995). Trust, reciprocity, and social history. *Games and Economic Behavior*, 10(1), 122-142.
- 👁 Dhami, S. (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.
- 👁 Fehr, E., & Gächter, S. (2000). Cooperation and punishment in public goods experiments. *American Economic Review*, 90(4), 980-994.



Additional literature

- 👁 Güth, W., Schmittberger, R., & Schwarze, B. (1982). An experimental analysis of ultimatum bargaining. *Journal of Economic Behavior & Organization*, 3(4), 367-388.
- 👁 Hertwig, R., & Ortmann, A. (2001) Experimental practices in economics: A methodological challenge for psychologists? *Behavioral and Brain Sciences*, 24, 383-451.

LECTURE 6: OTHER-REGARDING PREFERENCES (MODELS)

Plan:

- ▶ What are the axioms required for preferences to be represented by a utility function $u(x)$?
- ▶ Inequity aversion model of Fehr and Schmidt
- ▶ Equity, reciprocity and competition (ERC) model
- ▶ Efficiency concern model
- ▶ Impure altruism model
- ▶ Intention-based model
- ▶ What are the axioms required for other-regarding preferences to be represented by a utility function $u(n_i, n_j, x_i, x_j)$?

Required literature

- 👁 Andreoni, J. (1989). Giving with impure altruism: Applications to charity and Ricardian equivalence. *Journal of Political Economy*, 97(6), 1447-1458.
- 👁 Bolton, G.E., & Ockenfels, A. (2000). ERC: A theory of equity, reciprocity, and competition. *American Economic Review*, 90(1), 166-193.
- 👁 Charness, G., & Rabin, M. (2002). Understanding social preferences with simple tests. *Quarterly Journal of Economics*, 117(3), 817-869.
- 👁 Chowdhury, S.M., & Jeon, J.Y. (2014). Impure altruism or inequality aversion?: An experimental investigation based on income effects. *Journal of Public Economics*, 118, 143-150.
- 👁 Cox, J.C. (2004). How to identify trust and reciprocity. *Games and Economic Behavior*, 46(2), 260-281.
- 👁 Engelmann, D., & Strobel, M. (2004). Inequality aversion, efficiency, and maximin preferences in simple distribution experiments. *American Economic Review*, 94(4), 857-869.

Additional literature

- 👁 Fehr, E., & Schmidt, K. M. (1999). A theory of fairness, competition, and cooperation. *Quarterly Journal of Economics*, 114(3), 817-868.
- 👁 Neilson, W. S. (2006). Axiomatic reference-dependence in behavior toward others and toward risk. *Economic Theory*, 28(3), 681-692.
- 👁 Rabin, M. (1993). Incorporating fairness into game theory and economics. *American Economic Review*, 83(5), 1281-1302.
- 👁 Segal, U., & Sobel, J. (2007). Tit for tat: Foundations of preferences for reciprocity in strategic settings. *Journal of Economic Theory*, 136(1), 197-216.

LECTURE 7: OTHER-REGARDING PREFERENCES (APPLICATION)

LECTURE-WORKSHOP 8.

EXPERIMENTS 4, 5, 6

Plan:

- ▶ Why do people give to charities?
- ▶ What motivates people at the workplace?



Required literature

- 👁 Card, D., Mas, A., Moretti, E., & Saez, E. (2012). Inequality at work: The effect of peer salaries on job satisfaction. *American Economic Review*, 102(6), 2981-3003.
- 👁 DellaVigna, S., List, J A., & Malmendier, U. (2012). Testing for altruism and social pressure in charitable giving. *Quarterly Journal of Economics*, 127(1), 1-56.
- 👁 Dhami, S. (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.
- 👁 Fehr, E., Klein, A., & Schmidt, K. M. (2007). Fairness and contract design. *Econometrica*, 75(1), 121-154.



Additional literature

- 👁 Kosfeld, M., & Neckermann, S. (2011). Getting more work for nothing? Symbolic awards and worker performance. *American Economic Journal: Microeconomics*, 3(3), 86-99.
- 👁 Ottoni-Wilhelm, M., Vesterlund, L., & Xie, H. (2017). Why do people give? Testing pure and impure altruism. *American Economic Review*, 107(11), 3617-33.
- 👁 Samek, A., & Sheremeta, R. M. (2017). Selective recognition: How to recognize donors to increase charitable giving. *Economic Inquiry*, 55(3), 1489-1496.
- 👁 Lecture-workshop 8. Interdisciplinary experiments in the sphere of economics and (anti-)corruption 4, 5, 6

LECTURE 9: EXPECTED UTILITY (MODEL)

Plan:

- 👁 How to calculate the expected value?
- 👁 How to calculate the expected utility?
- 👁 What are the axioms required for preferences to be represented by an expected utility function $E(u(x))$?
- 👁 What is risk?
- 👁 How to measure risk aversion?
- 👁 How to calculate Absolute Risk Aversion?
- 👁 How to calculate Relative Risk Aversion?



Required literature

- 👁 Bassi, A., Colacito, R., & Fulghieri, P. (2013). 'O sole mio: an experimental analysis of weather and risk attitudes in financial decisions. *Review of Financial Studies*, 26(7), 1824-1852.
- 👁 Cain, M.D., & McKeon, S.B. (2016). CEO personal risk-taking and corporate policies. *Journal of Financial and Quantitative Analysis*, 51(1), 139-164.
- 👁 Charness, G., & Gneezy, U. (2012). Strong evidence for gender differences in risk taking. *Journal of Economic Behavior & Organization*, 83(1), 50-58.
- 👁 Dhami, S. (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.
- 👁 Dohmen, T., Falk, A., Huffman, D., Sunde, U., Schupp, J., & Wagner, G. G. (2011). Individual risk attitudes: Measurement, determinants, and behavioral consequences. *Journal of the European Economic Association*, 9(3), 522-550.



Additional literature

- 👁 Holt, C.A., & Laury, S.K. (2002). Risk aversion and incentive effects. *American Economic Review*, 92(5), 1644-1655.
- 👁 Morgenstern, O., & Von Neumann, J. (1953). *Theory of games and economic behavior*. Princeton University Press.
- 👁 Pratt, J.W. (1964). Risk Aversion in the Small and in the Large. *Econometrica*. 32 (1-2): 122-136.
- 👁 Sheremeta, R.M. (2011). Contest design: An experimental investigation. *Economic Inquiry*, 49(2), 573-590.

LECTURE 10: PROSPECT THEORY (MODEL)

Plan:

- ▶ Reference dependence
- ▶ Loss aversion
- ▶ Diminishing sensitivity
- ▶ Probability weighting
- ▶ What are the axioms required for preferences to be represented by the prospect theory utility function $E(u(x|r, \lambda, \alpha, \delta))$?



Required literature

- ▶ Barberis, N.C. (2013). Thirty years of prospect theory in economics: A review and assessment. *Journal of Economic Perspectives*, 27(1), 173-96.
- ▶ Barberis, N., Huang, M., & Thaler, R.H. (2006). Individual preferences, monetary gambles, and stock market participation: A case for narrow framing. *American Economic Review*, 96, 1069-1090.
- ▶ Carmon, Z., & Ariely, D. (2000). Focusing on the forgone: How value can appear so different to buyers and sellers. *Journal of Consumer Research*, 27(3), 360-370.
- ▶ Chateauneuf, A., & Wakker, P. (1999). An axiomatization of cumulative prospect theory for decision under risk. *Journal of Risk and Uncertainty*, 18(2), 137-145.



Additional literature

- ▶ Dhami, S. (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.
- ▶ Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47(2), 263-292.
- ▶ Kahneman, D., Knetsch, J.L., & Thaler, R.H. (1991). Anomalies: The endowment effect, loss aversion, and status quo bias. *Journal of Economic Perspectives*, 5(1), 193-206.
- ▶ Medvec, V.H., Madey, S.F., & Gilovich, T. (1995). When less is more: counterfactual thinking and satisfaction among Olympic medalists. *Journal of Personality and Social Psychology*, 69, 603-610.
- ▶ Rabin, M. (2000). Risk Aversion and Expected-Utility Theory: A Calibration Theorem. *Econometrica*, 68(5), 1281-1292.
- ▶ Tversky, A., & Kahneman, D. (1992). Advances in prospect theory: Cumulative representation of uncertainty. *Journal of Risk and uncertainty*, 5(4), 297-323.

LECTURE 11: PROSPECT THEORY (APPLICATION)

Plan:

- ▶ Insurance
- ▶ Lotteries
- ▶ Labor supply
- ▶ Marketing
- ▶ Stock market
- ▶ Endowment effect

Required literature

- 👁 Benartzi, S., & Thaler, R. H. (1995). Myopic loss aversion and the equity premium puzzle. *Quarterly Journal of Economics*, 110(1), 73-92.
- 👁 Camerer, C., Babcock, L., Loewenstein, G., & Thaler, R. (1997). Labor supply of New York City cabdrivers: One day at a time. *Quarterly Journal of Economics*, 112(2), 407-441.
- 👁 Dhami, S. (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.
- 👁 Dimmock, S.G., & Kouwenberg, R. (2010). Loss-aversion and household portfolio choice. *Journal of Empirical Finance*, 17(3), 441-459.
- 👁 Gneezy, A., Gneezy, U., & Lauga, D.O. (2014). A reference-dependent model of the price-quality heuristic. *Journal of Marketing Research*, 51(2), 153-164.
- 👁 Kőszegi, B., & Rabin, M. (2006). A model of reference-dependent preferences. *Quarterly Journal of Economics*, 121(4), 1133-1165.

Additional literature

- 👁 List, J.A. (2003). Does market experience eliminate market anomalies? *Quarterly Journal of Economics*, 118(1), 41-71.
- 👁 Shefrin, H., & Statman, M. (1985). The disposition to sell winners too early and ride losers too long: Theory and evidence. *Journal of Finance*, 40(3), 777-790.
- 👁 Sydnor, J. (2010). (Over) insuring modest risks. *American Economic Journal: Applied Economics*, 2(4), 177-99.

LECTURE 12: PROSPECT THEORY (SOLVING PROBLEMS)

Plan:

- ▶ Paying for insurance
- ▶ Double-or-nothing
- ▶ The “mug” experiment



Required literature

- 👁 Dhami, S. (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.
- 👁 Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47(2), 263-292.



Additional literature

- 👁 Kahneman, D., Knetsch, J.L., & Thaler, R.H. (1991). Anomalies: The endowment effect, loss aversion, and status quo bias. *Journal of Economic Perspectives*, 5(1), 193-206.

LECTURE 13. REVIEW FOR EXAM 1

LECTURE 14.

EXAM 1

LECTURE-WORKSHOP 15.

EXPERIMENTS 7, 8, 9

LECTURE 16: EXPONENTIAL DISCOUNTING (MODEL)

Plan:

- ▶ What is intertemporal decision-making?
- ▶ Exponential discounted utility
- ▶ What are the axioms required for preferences to be represented by an exponential discounted utility function?
- ▶ What are the properties of the exponential discounting model?

Required literature

- 👁 Dhami, S. (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.
- 👁 Frederick, S., Loewenstein, G., & O'donoghue, T. (2002). Time discounting and time preference: A critical review. *Journal of Economic Literature*, 40, 351-401.

Additional literature

- 👁 Koopmans, T.C. (1960). Stationary ordinal utility and impatience. *Econometrica*, 28, 287-309.
- 👁 Thaler, R. (1981). Some empirical evidence on dynamic inconsistency. *Economics letters*, 8, 201-207.

LECTURE 17: HYPERBOLIC DISCOUNTING (MODEL)

Plan:

- ▶ Hyperbolic discounting utility
- ▶ What are the axioms required for preferences to be represented by a hyperbolic discounted utility function?
- ▶ What is the difference between naïve and sophisticated decision makers?
- ▶ What is a commitment device and who is the most likely to use it?

Required literature

- 👁 Dhami, S. (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.
- 👁 Lee, D.S., & McCrary, J. (2017). The deterrence effect of prison: Dynamic theory and evidence. In *Regression Discontinuity Designs: Theory and Applications*, pp. 73-146.

Additional literature

- 👁 Montiel Olea, J.L., & Strzalecki, T. (2014). Axiomatization and measurement of quasi-hyperbolic discounting. *Quarterly Journal of Economics*, 129, 1449-1499.
- 👁 Gruber, J. (2001). Youth smoking in the 1990's: Why did it rise and what are the long-run implications? *American Economic Review*, 91, 85-90.

LECTURE 18: HYPERBOLIC DISCOUNTING (APPLICATION)

Plan:

- 👁 Why people don't save?
- 👁 How does "Save More Tomorrow" work?
- 👁 Why do people buy monthly membership to the gym, while pay per visit would be more cost efficient?
- 👁 What deadlines are the most effective at dealing with present bias and procrastination?



Required literature

- 👁 Dhami, S. (2016). The Foundations of Behavioral Economic Analysis. Oxford University Press.
- 👁 Thaler, R.H., & Benartzi, S. (2004). Save more tomorrow™: Using behavioral economics to increase employee saving. *Journal of Political Economy*, 112, 164-187.



Additional literature

- 👁 Ausubel, L.M. (1999). Adverse selection in the credit card market. Unpublished.
- 👁 Mazar, N., Mochon, D., & Ariely, D. (2018). If You Are Going to Pay Within the Next 24 Hours, Press 1: Automatic Planning Prompt Reduces Credit Card Delinquency. *Journal of Consumer Psychology*, 28, 466-476.
- 👁 Ariely, D., & Wertenbroch, K. (2002). Procrastination, deadlines, and performance: Self-control by precommitment. *Psychological Science*, 13, 219-224.
- 👁 DellaVigna, S., & Malmendier, U. (2006). Paying not to go to the gym. *American Economic Review*, 96, 694-719.

LECTURE 19: HYPERBOLIC DISCOUNTING (SOLVING PROBLEMS)

Plan:

- 👁 Estimate β, δ
- 👁 Calculate the optimal plan of action for a naïve and sophisticated decision maker
- 👁 Solve a two period model of utility maximization



Required literature

- 👁 Dhami, S. (2016). The Foundations of Behavioral Economic Analysis. Oxford University Press.

LECTURE-WORKSHOP 20.

EXPERIMENTS 10, 11, 12

LECTURE 21: BEHAVIORAL GAME THEORY



Plan:

- What are the essential elements of a game?
- What is a dominated strategy?
- How to solve the game using IEDS?
- How to solve the game using SPNE?
- What are the limitations of IEDS and SPNE?



Required literature

- 👁 Dhami, S. (2016). The Foundations of Behavioral Economic Analysis. Oxford University Press.
- 👁 Camerer, C.F. (2003). Behavioral Game Theory: Experiments in Strategic Interaction. Princeton: Princeton University Press.
- 👁 Nash, J.F. (1950). Equilibrium points in n-person games. Proceedings of the National Academy of Sciences, 36, 48-49.



Additional literature

- 👁 Rosenthal, R.W. (1981). Games of perfect information, predatory pricing and the chain-store paradox. Journal of Economic Theory, 25, 92-100.

LECTURE 22: LEVEL-K (MODEL)

Plan:

- 👁 Level-k model
- 👁 How to solve the game using level-k thinking?
- 👁 What are the limitations of level-k model?

Required literature

- 👁 Dhami, S. (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.
- 👁 Nagel, R. (1995). Unraveling in guessing games: An experimental study. *American Economic Review*, 85, 1313-1326.
- 👁 Kawagoe, T., & Takizawa, H. (2012). Level-k analysis of experimental centipede games. *Journal of Economic Behavior & Organization*, 82, 548-566.
- 👁 Crawford, V.P., Costa-Gomes, M.A., & Iriberri, N. (2013). Structural models of nonequilibrium strategic thinking: Theory, evidence, and applications. *Journal of Economic Literature*, 51, 5-62.

Additional literature

- 👁 Levitt, S.D., & List, J.A., & Sadoff, S. (2011). Checkmate: Exploring Backward. Induction among Chess Players. *American Economic Review*, 101, 975-990.
- 👁 Palacios-Huerta, I., & Volij, O. (2009). Field centipedes. *American Economic Review*, 99, 1619-1635.
- 👁 Georganas, S., Healy, P. J., & Weber, R. A. (2015). On the persistence of strategic sophistication. *Journal of Economic Theory*, 159, 369-400.

LECTURE 23: LEVEL-K (APPLICATION)

Plan:

- 👁 Why people overbid in auctions?
- 👁 Why studios choose to cold-open their movies?
- 👁 Why investors follow recommendations of biased financial advisers?

Required literature

- 👁 Dhami, S. (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.
- 👁 Crawford, V.P., & Iriberri, N. (2007). Level-k auctions: Can a nonequilibrium model of strategic thinking explain the winner's curse and overbidding in private-value auctions? *Econometrica*, 75(6), 1721-1770.
- 👁 Hendricks, K., & Porter, R.H. (1988). An empirical study of an auction with asymmetric information. *American Economic Review*, 78, 865-883.

Additional literature

- 👁 Kagel, J.H., & Levin, D. (1986). The winner's curse and public information in common value auctions. *American Economic Review*, 76, 894-920.
- 👁 Brown, A.L., Camerer, C.F., & Lovallo, D. (2012). To review or not to review? Limited strategic thinking at the movie box office. *American Economic Journal: Microeconomics*, 4, 1-26.
- 👁 Malmendier, U., & Shanthikumar, D. (2007). Are small investors naive about incentives? *Journal of Financial Economics*, 85, 457-489.

LECTURE 24: COGNITIVE BIASES

Plan:

- 👁️ What is the “standard” model?
- 👁️ Other-regarding preferences
- 👁️ Prospect theory
- 👁️ Hyperbolic discounting
- 👁️ Level-k thinking
- 👁️ Cognitive Biases
- 👁️ Ambiguity aversion

Required literature

- 👁️ Augenblick, N. (2015). The sunk-cost fallacy in penny auctions. *The Review of Economic Studies*, 83(1), 58-86.
- 👁️ Berger, L., Bleichrodt, H., & Eeckhoudt, L. (2013). Treatment decisions under ambiguity. *Journal of Health Economics*, 32, 559-569.
- 👁️ Chapman, G. B., Li, M., Colby, H., & Yoon, H. (2010). Opting in vs opting out of influenza vaccination. *JAMA*, 304(1), 43-44.
- 👁️ Easley, D., & O'Hara, M. (2009). Ambiguity and nonparticipation: the role of regulation. *The Review of Financial Studies*, 22(5), 1817-1843.
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- 👁️ Moore, D. A., & Healy, P. J. (2008). The trouble with overconfidence. *Psychological Review*, 115(2), 502-517.
- 👁️ Odean, T. (1998). Volume, volatility, price, and profit when all traders are above average. *Journal of Finance*, 53(6), 1887-1934.
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- 👁️ Rabin, M., & Schrag, J. L. (1999). First impressions matter: A model of confirmatory bias. *Quarterly Journal of Economics*, 114(1), 37-82.
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**LECTURE 25.
REVIEW FOR EXAM 2**

LECTURE 26.

EXAM 2



LECTURER

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Ph.D., is an associate professor of economics at the Weatherhead School of Management at Case Western Reserve University and a research affiliate at the Economic Science Institute at Chapman University. He holds a Ph.D. in economics from Purdue University and is a recipient of many research and teaching awards, including the 2018 Smith Ascending Scholar Prize, as well as multiple grants, including the National Science Foundation and the Max Planck Institute grants. Sheremeta was listed as a Top Economic Thinker of Ukrainian descent by Forbes in 2015, a top-rated young economist in the world according to the IDEAS ranking in 2018, and recognized as the Best 40 Under 40 Professors by Poets and Quants in 2019.

His research has been published in more than 60 leading scholarly journals in economics, business, psychology, and political science, and featured in a variety of popular media outlets, including the Wall Street Journal, Forbes, NBC News, NPR, and Science Daily. The focus of his research is in experimental economics and game theory, with applications to behavioral economics, conflict resolution, industrial organization, labor economics, and public economics. Sheremeta has served on the editorial boards of the Journal of Economic Psychology, Games, and the Journal of Economic Behavior and Organization.

Since his appointment at the Weatherhead School of Management in 2013, Sheremeta has taught courses on negotiation, managerial economics, behavioral economics, game theory, and microeconomics. He received a mentoring award from the Wolstein Society in 2015 and the Weatherhead Emerging Impact Award in 2015 and 2019.

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