MIT 14.13: Psychology and Economics

Frank Schilbach and Dmitry Taubinsky

Syllabus Fall 2020

Instructors:
Frank Schilbach (fschilb@mit.edu)
Individual Zoom office hours by appointment – please sign up HERE.

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Individual Zoom office hours by appointment – please sign up HERE.

Lectures: Tuesdays and Thursdays 10:30 AM - 12 PM on Zoom (https://mit.zoom.us/j/98330225807)

Teaching assistants and office hours: https://mit.zoom.us/j/92418353703
Matthew Ridley (mridley@mit.edu)
Wednesdays 4:00 PM - 5:00 PM

Bumsoo Kim (bumsoo@mit.edu)
Mondays 5:30 PM - 6:30 PM

Fiona Chen (fionac@mit.edu)
Thursdays 4:00 PM - 5:00 PM

Recitations: https://mit.zoom.us/j/91727034890
Thursdays 1:00 PM - 2:00 PM
Fridays 11:00 AM - 12:00 PM
Fridays 2:00 PM - 3:00 PM

Course website:
https://canvas.mit.edu/courses/3612

Online forum (Piazza): https://piazza.com/mit/fall2020/1413/home

Course Overview. Behavioral Economics (aka ‘Psychology and Economics’) is a growing sub-field of economics that incorporates insights from psychology and other social sciences into economics. The broad goal of these efforts is to make economic models more realistic and to strengthen their predictive power by incorporating previously neglected features such as self-control issues, concern for others, or aversion to losses. This course covers recent advances in behavioral economics by reviewing some of the assumptions made in mainstream economic models, and by discussing how human behavior systematically departs from these assumptions. We draw on empirical evidence from psychology and related fields that sheds light on preferences, cognition, and behavior. Topics include deviations from the standard model in terms of (i) preferences (present bias, reference dependence, and social preferences), (ii) beliefs (overconfidence, projection bias, and attribution bias), and (iii) decision-making (cognition, attention, and framing), as well as (iv) market and policy reactions to such deviations. Applications will cover a wide range of fields, including labor and public
economics, industrial organization, health economics, finance, and development economics. Students participate in surveys and small experiments in class, review evidence from lab and field experiments, and examine how the results can be integrated into existing or novel models.

**Prerequisites.** As the class is considering deviations from mainstream models of economics, a solid grasp of these models is essential for mastering the material. Therefore, 14.01 or an equivalent introductory microeconomics course is a prerequisite for this class. If you have not taken 14.01, please talk to the instructors after the first lecture to discuss whether this class is suitable for you.

**Reading materials.** There is no textbook for this course. The fairly detailed lecture slides are meant to be self-explanatory, and they are complemented by recitation slides as well as by a set of readings for each class, as specified in the reading list. Starred readings will feature in lectures, exams, and problem sets. If a reading is starred, you are strongly encouraged to read the paper prior to class, which means reading the sections announced in class, usually abstract, introduction, and selected sections of the paper.

**Lectures.** Each lecture will be given on Zoom during the scheduled time of the class. Students are strongly encouraged to attend these lectures synchronously during this time. However, given difficulties for some students to attend online lectures live in different time zones, etc., a recording of this class will be uploaded to the course website as well. Recitations will also be recorded. Given that the class does not follow a textbook, most of the course materials will be based on academic papers from leading journals. While the lecture slides are fairly comprehensive, the course material will be difficult to master without attending lectures live or watching the recordings. However, attendance does not factor into grades (see below).

**Grading.** The class is not graded on a curve. It is possible that everyone will do very well, which will make us very happy. However, if you do not put effort into this class, you will likely not do well. If we think you are in danger of failing the class, we will try to warn you before the drop date. Here are the different components of your grade:

- **Exams (50%).** There will be two exams, which will both be administered online.
  
  (1) The mid-term exam will count for 25% of your grade. It will be designed for 85 minutes but you will be given 120 minutes to complete it online to account for difficulties uploading your answers or any other issues that may arise. The mid-term exam will take place on October 20, 2020 (instead of class on that day). Starting at 8:01 am EDT, you will be given 12 hours (until 8:00 pm EDT) to pick a 120-minute window during which you can complete the exam.

  (2) The cumulative final exam (180 minutes) will count for 25% of your grade. Again, we will ensure you have time to upload your answers. If your grade on the final is higher than your grade on the midterm, both grades will be replaced with your grade on the final so that your final counts for 50% of your grade. The final exam will take place during the finals period (exact day to be determined by the registrar). Starting at 8:01 am EST, you will be given 12 hours (until 8:00 pm EST) to pick a 180-minute window during which you can complete the exam.

- **Problem sets (30%).** There will be five problem sets over the course of the semester, which will cover materials from lecture, readings, and class discussions. You must submit your problem sets in pdf-form using Gradescope (https://www.gradescope.com/). Late problem sets will not be accepted, and there won’t be any exceptions to this policy. To accommodate for unanticipated events, illness, conflicts in your schedule, or other rational or irrational reasons that may prevent you from submitting the problem set on time, we will automatically drop the problem set with your lowest score.

The tentative problem set schedule is as follows:

- PS1 is due on Sep 22 at 6 pm.
- PS2 is due on Oct 6 at 6 pm.
- PS3 is due on Oct 29 at 6 pm.
- PS4 is due on Nov 12 at 6 pm.
- PS5 is due on Dec 3 at 6 pm.
Note that problem sets are each due at 6 pm. Please make sure to submit your problem set a bit earlier to account for network issues or other unforeseen problems. Late problem sets will not be accepted for such reasons.

- **Weekly memos (20%).** Each week, you will be asked to write a brief memo (1 - 2 paragraphs) that relates the class content to issues that you experienced in your life. Memos will be due on **Sunday at 6 pm**, and should be at least 150 words (please do not send more than one page).
  
The goal of the memos is for you to reflect on the course material and think about how it is relevant to your life. In addition, the memos will help you stay up-to-date with the course materials each week. As such, we will not grade the memos harshly and expect to give most memos full marks. Your best 8 out of 10 memos will count toward your grade.

**Questions regarding grading.** You should direct any questions regarding grading first to your TA. Importantly, you must raise any issues no more than one week after the assignment has been handed back. To have your grading be reconsidered, take the following steps:

1) Email your TA along with a note describing specifically what you believe the problem to be.

2) The TA will schedule an in-person meeting to discuss the issue, likely during TA office hours.

**Getting help outside of class.** If you have questions regarding the class material or problem sets, there are four ways to get help:

(i) Use the online forum ([Link to Piazza](#)). We will have threaded discussions (monitored by the TAs and professor) for all problem sets and class-related topics, which should allow you to get a timely, high-quality answer to most of your questions.

(ii) Ask questions during recitation and lectures.

(iii) Ask questions during TA office hours (on Zoom, see above).

(iv) Ask questions during Prof. Schilbach’s office hours (on Zoom, see above)

Please avoid sending us your class-related questions by email (except for personal class-related matters). The discussion forum and office hours are more efficient ways for us to communicate with you, and your forum questions and responses will benefit many of your classmates.

**Academic integrity.** In this class, you will be held to the high standard of academic integrity expected of all students at MIT.

- We will follow MIT’s Academic Integrity Policy (see complete policy at [Integrity at MIT](#)).

- You may work jointly with other groups on problem sets but each of you must submit solutions individually. If you choose to work with other students, we expect that you work jointly on the solutions rather than simply copying solutions from another student. This will help you to learn the material and to prepare for exams.

- IMPORTANT: On the mid-term and final exam, you can consult your notes but you must work on your own, i.e. without the help of other students or anyone else in person or online.

- Violating the Academic Integrity policy in any way will result in official Institute sanction. Please review the Academic Integrity policy and related resources, and contact us if you have any questions related to the Academic Integrity of this course.

**Check.** Great, you are still reading! To confirm that you indeed read the syllabus, please send an email with a picture of a bear to Prof. Schilbach ([fschilb@mit.edu](mailto:fschilb@mit.edu)), with the subject line “14.13 confirmation”. Please send interesting pictures, not just the first one that shows up when googling ‘bear’.
Tentative Schedule and Reading List

General books of interest (not required). The following books are background readings in case you would like to learn more. They are by no means required!

- Kahneman and Tversky (2000): Choices, Values and Frames
- Kahneman (2011): Thinking, Fast and Slow
- Cialdini (1993): Influence, the Psychology of Persuasion
- Ariely (2009): Predictably Irrational: The Hidden Forces that Shape our Decisions
- Lewis (2017): The Undoing Project: A Friendship That Changed Our Minds

Tentative schedule. Below is a tentative schedule for the semester, along with the corresponding reading materials for each class.

- Class topics and readings are subject to revision, i.e. some topics might be revised or even dropped altogether if time runs short.
- Starred readings will be covered in lectures, problem sets and exams. Students are strongly encouraged to read these papers before coming to class.
- We will announce in each class which paper(s) to read for the subsequent class(es).
- Non-starred readings are not required, but they may help you understand the materials covered in lectures or problem sets. You might want to consult these papers in case you’d like to deepen your understanding of the material covered in class, but we will not test you on the content of these papers beyond the parts that are covered in class.

Introduction and Overview (FS, Sep 1, 3)

** Rabin (2002): A Perspective on Psychology and Economics (sections I and II)
- Carter et al. (2017): The Impact of Computer Usage on Academic Performance: Evidence from a Randomized Trial at the United States Military Academy
- Darley and Batson (1973): “From Jerusalem to Jericho”: A Study of Situational and Dispositional Variables in Helping Behavior
- Gabaix and Laibson (2008): The Seven Properties of Good Models
- Rabin (2013): Incorporating Limited Rationality into Economics

Time Preferences (FS, Sep 8, 10, 15, 17)

Introduction to Time Preferences

Quasi-Hyperbolic Discounting

** O’Donoghue and Rabin (1999): Doing it Now or Later
- Laibson (1997): Golden Eggs and Hyperbolic Discounting
- O’Donoghue and Rabin (2001): Choice and Procrastination

Empirical Applications

** Ariely and Wertenbroch (2002): Procrastination, Deadlines, and Performance
- Bryan et al. (2010): Commitment Devices
- DellaVigna and Malmendier (2006): Paying Not To Go To the Gym
- Kaur, Kremer and Mullainathan (2015): Self-Control at Work
- Milkman et al. (2014): Holding the Hunger Games Hostage at the Gym
- Schilbach (2017): Alcohol and Self-Control: A Field Experiment in India

Risk Preferences (DT, Sep 22, 24) and Reference Dependence (DT, Sep 29, Oct 1)

Introduction to Risk Preferences

** Sydnor (2010): (Over)insuring Modest Risk

Reference-Dependent Preferences

** Tversky and Kahneman (1979): Prospect Theory: An Analysis of Decision under Risk

Empirical Applications
- Allen et al. (2017): Reference-Dependent Preferences: Evidence from Marathon Runners
- Camerer et al. (1997): Labor Supply of New York City Cabdrivers: One Day at a Time
- Camerer (2001): Prospect Theory in the Wild: Evidence from the Field
- Carmon and Ariely (2000): Focusing on the Forgone: How Value Can Appear So Different to Buyers and Sellers

Social Preferences (FS, Oct 6, 8, 15, 22)

Experiments in Class (October 6)
- No readings. You will participate in simple in-class experiments. You can make some money while learning about the generosity of your classmates.

Modeling and Measuring Social Preferences

** Camerer and Fehr (2004)

Empirical Applications
** Bandiera et al. (2005): Social Preferences and the Response to Incentives: Evidence from Personnel Data


- Henrich (2012): Hunter-Gatherer Cooperation
- Lazear et al. (2006): Sorting, Prices, and Social Preferences
- Andreoni and Bernheim (2007): Social Image and the 50-50 Norm: A Theoretical and Experimental Analysis of Audience Effects
- Dana et al. (2007): Exploiting Moral Wiggle Room: Experiments Demonstrating an Illusory Preference for Fairness
- Ellingsen and Johannesson (2007): Paying Respect

Oct 13: No class (Monday schedule)

Oct 20: Mid-term exam

Beliefs and Learning (DT, Oct 27)

** Oster et al. (2013): Optimal Expectations and Limited Medical Testing: Evidence from Huntington’s Disease
- Chen et al. (2016): Decision-making under the Gambler’s Fallacy: Evidence from Asylum Judges, Loan Officers, and Baseball Umpires
- Gilovich et al. (1985): The Hot Hand in Basketball: On the Misperception of Random Sequences
- Gold and Hester (1987): The gambler’s fallacy and the coin’s memory
- Loewenstein (1987): Anticipation and the Valuation of Delayed Consumption
- Malmendier and Tate (2008): Who makes acquisitions? CEO overconfidence and the market’s reaction

Limited Attention (DT, Oct 29)

** Chetty et al. (2009): Salience and Taxation: Theory and Evidence
- Huberman and Regev (2001): Contagious Speculation and a Cure for Cancer: A Nonevent That Made Stock Prices Soar

Heuristic Choice (DT, Nov 3, 5)

Anchoring
- Ariely et al. (2003): ‘Coherent Arbitrariness’: Stable Demand Curves Without Stable Preferences
- Bruner and Potter (1964): Interference in Visual Recognition
- Lord and Lepper (1979): Biased Assimilation and Attitude Polarization: The Effects of Prior Theories on Subsequently Considered Evidence

Bracketing

Ironing and Spotlighting

- Ito (2014): *Do Consumers Respond to Marginal or Average Price? Evidence from Nonlinear Electricity Pricing*

- Liebman and Zeckhauser (2004): *Schmeduling*


Mental Accounting and Applications

- Thaler (1990): *Saving, Fungibility, and Mental Accounts*

- Milkman and Beshears (2009): *Mental accounting and small windfalls: Evidence from an online grocer*


- Thaler (1981): *An Economic Theory of Self-Control*


- Almond et al. (2011): *Inside the War on Poverty: The Impact of Food Stamps on Birth Outcomes*

- Shapiro and Slemrod (2001): *Consumer Response to Tax Rebates*

- Feldman (2010): *Mental Accounting Effects of Income Tax Shifting*

- Fogel et al. (2004): *Loss Aversion for Quality in Consumer Choice*

**Behavioral Agents in Markets (DT, Nov 10)**

Market Forces

- Friedman (1953): *Essays in Positive Economics*

- Grossman and Miller (1988): *Grossman, Sanford and Miller, Merton*

- De Long et al. (1990): *Noise Trader Risk in Financial Markets*

- Shleifer and Vishny (1997): *The Limits of Arbitrage*


Shrouded Attributes


- Agarwal et al. (2008): *Learning in the Credit Card Market*

- Alexander et al. (1998): *Mutual fund shareholders: characteristics, investor knowledge, and sources of information*

- Barber et al. (2005): *Out of Sight, Out of Mind: The Effects of Expenses on Mutual Fund Flows*

- Hall (2003): *The Inkjet Aftermarket: An Economic Analysis*

- Hossain and Morgan (2006): *Shrouded attributes and information suppression: Evidence from field experiments*

- Brown et al. (2010): *Shrouded Attributes and Information Suppression: Evidence from the Field*

**Default Effects, Nudges, and Policy (DT, Nov 12)**
- Beshears et al. (2005): The importance of default options for retirement saving outcomes: evidence from the United States
- Carroll et al. (2009): Optimal Defaults and Active Decisions
- Chetty et al. (2014): Active vs. Passive Decisions and Crowd-Out in Retirement Savings Accounts: Evidence from Denmark
- Thaler and Benartzi (2004): Save More Tomorrow™: Using Behavioral Economics to Increase Employee Saving
- Bhargava et al. (2017): Choose to Lose: Health Plan Choices from a Menu with Dominated Option
- Handel (2013): Adverse Selection and Inertia in Health Insurance Markets: When Nudging Hurts
- Johnson and Goldstein (2003): Do Defaults Save Lives?
- Bettinger et al. (2009): The Role of Simplification and Information in College Decisions: Results from the HR Block FAFSA Experiment
- Allcott et al. (2019): Regressive Sin Taxes, with an Application to the Optimal Soda Tax

Optimal Public Policy with Behavioral Agents (DT, Nov 17, 19)
- Allcott et al. (2019): Regressive Sin Taxes, with an Application to the Optimal Soda Tax

Nov 24, 26: No class (Thanksgiving)

Poverty Through the Lens of Psychology (FS, Dec 1)

** Mani et al. (2013): Poverty Impedes Cognitive Function
- Schilbach et al. (2016): The Psychological Lives of the Poor
- Haushofer and Fehr (2014): On the Psychology of Poverty
- Shah et al. (2015): Scarcity Frames Value

Happiness and Mental Health (FS, Dec 3)

** Stevenson and Wolfers (2008): Economic Growth and Subjective Well-Being: Reassessing the Easterlin Paradox
- Koszegi and Rabin (2008): Choices, Situations and Happiness

Gender, Discrimination, and Identity (FS, Dec 8)
Sarsons (2019): Interpreting Signals in the Labor Market: Evidence from Medical Referrals
- Bertrand et al. (2015): Gender Identity and Relative Income within Households
- Vesterlund et al. (2015): Breaking the Glass Ceiling with "No"
- Niederle and Vesterlund (2011): Gender and Competition

Final exam during exam period (TBD)
References


Other MIT Resources

The Department of Economics values an inclusive environment. If you need a disability accommodation to access this course, please communicate with us early in the semester. If you have your accommodation letter, please meet with the faculty so that we can understand your needs and implement your approved accommodations. If you have not yet been approved for accommodations, please contact Student Disability Services at uaap-sds@mit.edu to learn about their procedures. We encourage you to do so early in the term to allow sufficient time for implementation of services/accommodations that you may need.

The WCC at MIT (Writing and Communication Center) offers free one-on-one professional advice from communication experts. The WCC is staffed completely by MIT lecturers. All have advanced degrees. All are experienced college classroom teachers of communication. All are published scholars and writers. Not counting the WCC’s director’s years (he started the WCC in 1982), the WCC lecturers have a combined 133 years’ worth of teaching here at MIT (ranging from 4 to 24 years). The WCC works with undergraduate, graduate students, post-docs, faculty, staff, alums, and spouses.

The WCC helps you strategize about all types of academic and professional writing as well as about all aspects of oral presentations (including practicing classroom presentations & conference talks as well as designing slides). No matter what department or discipline you are in, the WCC helps you think your way more deeply into your topic, and helps you see new implications in your data, research, and ideas.

The WCC also helps with all English as Second Language issues, from writing and grammar to pronunciation and conversation practice. The WCC is located in E18-233, 50 Ames Street. To guarantee yourself a time, make an appointment. To register with our online scheduler and to make appointments, go to https://mit.mywconline.com/.

To access the WCC’s many pages of advice about writing and oral presentations, go to http://cmsw.mit.edu/writing-and-communication-center/. Check the online scheduler for up-to-date hours and available appointments.