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## Course Syllabus

INSTRUCTOR	Professor Katy Milkman
CLASS MEETINGS	Tuesdays and Thursdays 1:30-2:50 PM (401) or 3:00-4:20 PM (402)
OFFICE HOURS	Email me, and we'll set up an appointment anytime.
OFFICE LOCATION	Jon M. Huntsman Hall 566
EMAIL	<a href="mailto:kmilkman@wharton.upenn.edu">kmilkman@wharton.upenn.edu</a>
PREREQUISITES	No advanced mathematical training is required for this course, although having taken an introductory probability/statistics course may be useful.
TEACHING ASSISTANT	Ph.D. Candidate Theresa Kelly ( <a href="mailto:thekelly@wharton.upenn.edu">thekelly@wharton.upenn.edu</a> )

### 1. Overview

#### 1.1 Background

Over the last 30 years, psychologists and economists have joined forces to study how people process information and actually make decisions, rather than how they would make decision if they were fully rational and selfish. This research program (dubbed behavioral economics) has provided an understanding of how people's decisions deviate from "optimal" choices as well as the consequences of such deviations. This course is devoted to understanding the nature, causes and implications of these limitations. The first two thirds of the course will focus on when individuals make decisions that deviate from the predictions of economics, and the final third of the course will focus on implications of these systematic decision biases for managers and policy makers.

#### 1.2 Objectives

The course has two main objectives. The first is improving the ability of the student (as a future manager) to influence the behavior of others, be they consumers, employees or people outside of a business relationship altogether. This will be accomplished by building on the toolbox that standard economics provides for influencing behavior (namely, incentives and information) with the insights from the aforementioned stream of research in behavioral economics.

The second objective is to improve the quality of students' own managerial decisions, primarily by enhancing the students' intuitive empirical abilities but also by improving their understanding of project evaluation. People are poor intuitive statisticians, meaning that when they 'just think' about situations for which some data or casual observations exist, they tend to make serious inferential errors, in turn leading to systematically biased decisions. We will study some errors that are particularly important for real world managerial settings and look for easy-to-implement solutions. We will also touch upon ways to evaluate the effectiveness of new ideas in the workplace.

### 1.3 Who Should Not Take This Class

- If you are seeking a quantitative course about decision making, you may not like this class.
- If you can't stand psychology, you may not like this class.
- If you took many courses about social psychology as an undergraduate, you may find some course content redundant with your past training.
- This course is focused on managerial decision making rather than consumer decision making, but the two topics have considerable overlap since understanding consumers and colleagues often requires similar insights. If you have already taken a course on consumer behavior, please look closely at this syllabus to ensure that the topics covered in OPIM 690 will be new enough to you for this course to be a good use of your time.

### 1.4 Instruction Format

The course is primarily lecture based, although it includes several cases and activities. Class discussion is strongly encouraged.

## 2. Logistics

### 2.1 Readings

Two books are required for class:

(1) Thaler, R.H. & Sunstein, C.R. (2008). Nudge: Improving Decisions about Health, Wealth, and Happiness. Yale University Press: New Haven, CT.

(2) Cialdini, R.B. (1984). Influence: The Psychology of Persuasion. Harper Collins Publishing: New York, NY.

Both are available for purchase at major online retailers and at the Penn book store. They are popular press books rather than textbooks.

Additional required readings are available in .pdf format from Canvas and through Study.net (readings only available through Study.net are subject to copyright restrictions).

### 2.2 Grading

Final grades will be determined by aggregating performance on the following:

(1) Midterm Exam	(30%)	(2) Homework	(20%)
(3) Class Participation	(15%)	(4) Final Group Project	(35%)

#### 2.2.1 Midterm Exam (Thursday, March 22<sup>nd</sup>)

The midterm will contain short-answer, essay and multiple choice questions and will take about an hour and fifteen minutes to complete. Sample midterms will be posted on Canvas.

#### 2.2.2 Homework

Six homework assignments will be due throughout the term. Five assignments are due on specific dates as indicated in the course schedule. The sixth assignment is to respond to one day's

discussion questions in a short memo due on the day of the relevant class. It is up to you when in the term to complete this assignment. Homework should be an individual exercise unless otherwise indicated. **Homework is always due by 12 noon on the day of class.**

### *2.2.3 Class Participation*

Students should come to class prepared to actively discuss the concepts in the readings. The goal is to make comments that significantly advance the class discussion, so quality is more important than quantity (but some quantity is necessary for quality to be judged). To contribute successfully to class discussion, attendance is of course necessary.

A subset of the questions that will be raised in class discussions will be posted along with reading assignments on Canvas. Please prepare for each class by reading and considering these questions carefully.

### *2.2.4 Final Group Project*

Everyone will take part in a group project (3-4 people per group) that will involve applying an idea from the first two thirds of this course to a managerial problem. Groups must choose one of the following two types of projects to work on:

#### **-Option 1: Design an Intervention to Solve a Managerial Problem**

Groups will develop a proposed behavioral intervention to solve a managerial problem at a particular organization and will develop an argument for why their proposal should be implemented by the organization in question. The idea is to apply one (or more) of the topics from this course to solve a real problem. For example, a managerial problem of interest might be high rates of worker absenteeism in a specific US manufacturing facility. A behavioral intervention to address the problem might involve mailings to workers emphasizing low absenteeism rates among their peers. Your group would put together a compelling proposal designed to convince management at the manufacturing company that they should implement your intervention and detailing both how to deploy it and how to measure its effectiveness. Groups must research their managerial setting in detail, define the problem to be addressed, describe their proposed intervention, provide a brief review of past research that gave rise to the proposed intervention, and describe the methods that are proposed for evaluating the effectiveness of the intervention.

#### **-Option 2: Study a Case of Biased Managerial Decision-Making and Propose a Solution**

Groups will identify and research a real, unwise managerial decision that was made due to one of the biased decision processes covered in this course. Groups will describe the managerial setting in detail, what errors in judgment were made as well as evidence that supports their interpretation. They will then summarize past research on the judgment error(s) in question and suggest a set of strategies that might have been used to prevent the error(s), supporting these suggestions with a review of relevant research on the topic. For example, a historical case of interest might be the decision by Norfolk Southern railroad to acquire Conrail at an enormous premium over the company's market value due to a bidding war with CSX Corporation that began in 1996, which arguably spurred unwise escalation of commitment. This decision later proved extremely unwise, and a final project could describe this unwise decision in detail, biases that contributed to it, and strategies that might have been adopted to prevent it. Students may use

their own work experiences as the topic of the study, in which case, they may choose to disguise the company name and people involved.

- **PRELIMINARY GROUP SELECTION** (*March 1<sup>st</sup>*): Please plan to sign-up with the group you plan to work with on your final project in class on March 1<sup>st</sup>.
- **OUTLINE** (*Due March 30<sup>th</sup>* – note this is not a class day): Each group must submit a 1-page, single-spaced summary of their planned project. I will provide feedback on these project outlines. Prior to submitting this assignment each group should plan on meeting with me to talk through several ideas and choose the best one to work on.
- **PRESENTATIONS** (*April 17<sup>th</sup> & 19<sup>th</sup>*): In the last two days of class, each group will have approximately 10 minutes to present their project to the class.
- **PAPERS** (*Due April 24<sup>th</sup>*): Each group must submit a 10 page, double-spaced paper providing a description of their project.

### **2.3 Class Policies**

Laptops and Cell Phones: Laptops and cell phones are not permitted in class.

Absences: When you are absent, the class can't benefit from your comments and insights on the material, and this will of course hurt your class participation grade. If you are absent, you should arrange beforehand with a classmate to take notes and pick up any assignments or handouts.

Late Assignments: Late assignments will result in a grade deduction of 1 point per day. For example, a homework assignment worth 4 points out of your total course grade of 100 points could receive a maximum score of 3 points (instead of 4) if turned in one day late.

Late Arrivals: Please arrive on time to avoid disrupting the class.

Email Correspondence: I am often, but not always, on email. Therefore, to make sure that you get any information you need well before deadlines, please email me at least *24 hours* before you need an answer, want to set up a meeting, etc.

### 3. Course Outline

#	CLASS	TOPIC	ASSIGNMENT/ READINGS DUE
1	January 12 <sup>th</sup>	Introduction	<b>Reading:</b> Brooks (2011)
2	January 17 <sup>th</sup>	Normative Models of Behavior and Standard Incentives	<b>Reading:</b> Becker (1976); Levitt & Dubner (2005) <b>Due:</b> Homework #1
3	January 19 <sup>th</sup>	Heuristics and Biases	<b>Reading:</b> Gladwell (2003); Gawande (1999)
4	January 24 <sup>th</sup>	Prospect Theory	<b>Reading:</b> Thaler & Sunstein (2008)
5	January 26 <sup>th</sup>	Fairness	<b>Prepare:</b> The Kidney Case <b>Due:</b> Homework #2
6	January 31 <sup>st</sup>	Fairness and Cooperation	<b>Reading:</b> Brafman and Brafman (2008)
7	February 2 <sup>nd</sup>	Social Norms and Conformity	<b>Prepare:</b> OPower Case
8	February 7 <sup>th</sup>	Intertemporal Choice and <i>Want/Should</i> Conflict	<b>Reading:</b> Cassidy (2006)
9	February 9 <sup>th</sup>	<i>Optional In-Class Office Hours/Q&amp;A</i>	
10	February 14 <sup>th</sup>	Commitment Devices and Mental Accounting	<b>Reading:</b> Lieber (2010)
11	February 16 <sup>th</sup>	Selling Commitment Devices ( <i>Guest Lecture: Jordan Goldberg, CEO StickK</i> )	<b>Prepare:</b> Visit and familiarize yourself with <a href="http://www.stickk.com">www.stickk.com</a> <b>Due:</b> Homework #3
12	February 21 <sup>st</sup>	Evaluating Behavioral Interventions	<b>Prepare:</b> Green Bank of the Philippines Case
13	February 23 <sup>rd</sup>	Cognitive Dissonance, Confirmation Bias and Escalation of Commitment	<b>Reading:</b> Tavris and Aronson (2007)
14	February 28 <sup>th</sup>	The Challenger Launch Decision	<b>Prepare:</b> Challenger Case
15	March 1 <sup>st</sup>	Bounded Awareness, Overconfidence, and Bounded Ethicality	<b>Reading:</b> Gladwell (2009) <b>Due:</b> Homework #4
16	March 13 <sup>th</sup>	Warped Beliefs	<b>Reading:</b> Gertner (2003) <b>Due:</b> List of final project group teammates
17	March 15 <sup>th</sup>	Behavioral Finance at JP Morgan	<b>Prepare:</b> Behavioral Finance Case
18	March 20 <sup>th</sup>	Midterm Review	
19	March 22 <sup>nd</sup>	Midterm Exam	
20	March 27 <sup>th</sup>	Libertarian Paternalism and Choice Architecture	<b>Reading:</b> Thaler & Sunstein (2008)
21	March 29 <sup>th</sup>	<i>In Class Group Project Work</i>	<b>Reading:</b> Cialdini (1984) <b>Due on March 30<sup>th</sup>:</b> Final Project Outline
22	April 3 <sup>rd</sup>	Influence I ( <i>Guest Lecture at 3 pm: Allan Domb, CEO of Allan Domb Real Estate</i> )	<b>Reading:</b> Cialdini (1984) <b>Prepare:</b> Visit and familiarize yourself with <a href="http://www.allandomb.com">www.allandomb.com</a>
23	April 5 <sup>th</sup>	Influence II	<b>Reading:</b> Cialdini (1984)
24	April 10 <sup>th</sup>	Applying Behavioral Economics I ( <i>Guest Lecture: Regina Schwartz, Deputy Director of the Analyst Institute</i> )	<b>Reading:</b> Issenberg (2010) <b>Prepare:</b> Visit and familiarize yourself with <a href="http://www.analystinstitute.org">www.analystinstitute.org</a>
25	April 12 <sup>th</sup>	Applying Behavioral Economics II ( <i>Guest Lecture: Dr. Prashant Srivastava, CEO Evive Health</i> )	<b>Prepare:</b> Visit and familiarize yourself with <a href="http://www.evivehealth.com">www.evivehealth.com</a> <b>Due:</b> Homework #5
26	April 17 <sup>th</sup>	Final Project Presentations	
27	April 19 <sup>th</sup>	Final Project Presentations	
28	April 24 <sup>th</sup>	Conclusion	<b>Due:</b> Final Project Paper

## 4. Reading Assignments

*Note: This schedule is subject to change based upon actual progress in class. New versions of the schedule, if any, will be posted on Canvas.*

Where to Find Readings: (C) = Canvas, (S) = Study.net, and (B) = Book (Nudge or Influence)

### **CLASS 1: INTRODUCTION**

*January 12, 2011*

(C) Brooks, D. (2011). "Who You Are," *The New York Times*, October 20, 2011.

### **CLASS 2: NORMATIVE MODELS OF BEHAVIOR AND STANDARD INCENTIVES**

*January 17, 2011*

(S) Becker, G. (1976). The Economic Approach to Human Behavior. Chicago: University of Chicago Press. *Introduction*.

(S) Levitt, S.D. & Dubner, S.J.(2005). Freakonomics: A Rogue Economist Explores the Hidden Side of Everything. Harper Perrenial: New York. *Introduction*.

### **CLASS 3: HEURISTICS AND BIASES**

*January 19, 2011*

(S) Gladwell, M. (2003). "Connecting the Dots: The Paradoxes of Intelligence Reform," *The New Yorker*, March 10, 2003.

(S) Gawande, A. (1999). "The Cancer Cluster Myth." *The New Yorker*, February 8, 1999.

### **CLASS 4: PROSPECT THEORY**

*January 24, 2011*

(B) Thaler, R.H. & Sunstein, C.R. (2008). Nudge: Improving Decisions about Health, Wealth, and Happiness. Yale University Press: New Haven, CT. *Chapter 11: How to Increase Organ Donations*.

### **CLASS 5: FAIRNESS**

*January 26, 2011*

(S) Austin-Smith, D., Feddersen, Galinsky, A. & Liljenquist, K. (2010). The Kidney Case. Dispute Resolution Research Center, Northwestern University: Evanston, IL.

### **CLASS 6: FAIRNESS AND COOPERATION**

*January 31, 2011*

(S) Brafman, O. & Brafman, R. (2008). Sway: The Irresistible Pull of Irrational Behavior. Broadway Books: New York, NY. *Chapter 6: In France, the Sun Revolves around the Earth*.

**CLASS 7: SOCIAL NORMS AND CONFORMITY***February 2, 2011*

(S) Cuddy, A.C. & Doherty, K.T. (2010). OPOWER: Increasing Energy Efficiency through Normative Influence. Harvard Business School Press: Cambridge, MA.

**CLASS 8: INTERTEMPORAL CHOICE AND WANT/SHOULD CONFLICT***February 7, 2011*

(S) Cassidy, J. (2006). "Mind Games: What Neuroeconomics Tells Us about Money and the Brain." *The New Yorker*, September 18, 2006.

**CLASS 9: OPTIONAL IN-CLASS OFFICE HOURS/Q&A***February 9, 2011*

This class time will be an opportunity to ask questions about any topics covered early in the term that students would like to explore/discuss further. Coffee and snacks will be provided.

**CLASS 10: COMMITMENT DEVICES AND MENTAL ACCOUNTING***February 14, 2011*

(C) Leiber, R. (2010). "Your Card Has Been Declined, Just as You Wanted." *New York Times*, August 13, 2010.

**CLASS 11: SELLING COMMITMENT DEVICES***February 16, 2011*

Visit and familiarize yourself with [www.stickk.com](http://www.stickk.com)

**CLASS 12: EVALUATING BEHAVIORAL INTERVENTIONS***February 21, 2011*

(S) Ashraf, Nava, Dean Karlan, and Wesley Yin. Evaluating Microsavings Programs: Green Bank of the Philippines (A). Harvard Business School Publishing: Cambridge, MA.

**CLASS 13: COGNITIVE DISSONANCE, CONFIRMATION BIAS AND ESCALATION OF COMMITMENT***February 23, 2011*

(S) Tavis, C. and Aronson, E. (2007). Mistakes Were Made (but not by me): Why We Justify Foolish Beliefs, Bad Decisions, and Hurtful Acts. Harcourt Books: USA. *Introduction & Chapter 1*.

**CLASS 14: THE CHALLENGER LAUNCH DECISION***February 28, 2011*

(S) Edmondson, A.C. & Feldman, L.R. (2002). Group Process in the Challenger Launch Decision (A). Harvard Business School Press: Cambridge, MA.

**CLASS 15: BOUNDED AWARENESS, OVERCONFIDENCE, AND BOUNDED ETHICALITY***March 1, 2011*

(S) Gladwell, M. (2009). "Cocksure: Banks, Battles, and the Psychology of Overconfidence." *The New Yorker*. July 27, 2009.

**CLASS 16: WARPED BELIEFS***March 13, 2011*

(C) Gertner, J. (2003). "The Futile Pursuit of Happiness," *The New York Times*, September 7, 2003.

**CLASS 17: BEHAVIORAL FINANCE AT JP MORGAN***March 15, 2011*

(S) Baker, M.P. & Sesia, A. (2007). Behavioral Finance at JP Morgan. Harvard Business School Publishing: Cambridge, MA.

**CLASS 18: MIDTERM REVIEW***March 20, 2011*

No reading assigned.

**CLASS 19: MIDTERM EXAM***March 22, 2011*

No reading assigned.

**CLASS 20: LIBERTARIAN PATERNALISM AND CHOICE ARCHITECTURE***March 27, 2011*

(B) Thaler, R.H. & Sunstein, C.R. (2008). Nudge: Improving Decisions about Health, Wealth, and Happiness. Yale University Press: New Haven, CT. *Introduction, Chapter 4: When Do We Need a Nudge?, Chapter 5: Choice Architecture, & Chapter 17: Objections.*

**CLASS 21: IN CLASS GROUP PROJECT WORK***March 29, 2011*

(B) Cialdini, R. (1984). Influence: The Psychology of Persuasion. Harper Collins Publishing: New York, NY. *Begin reading.*



**CLASS 22: INFLUENCE I***April 3, 2011*

(B) Cialdini, R. (1984). Influence: The Psychology of Persuasion. Harper Collins Publishing: New York, NY. *Continue reading.*

Visit and familiarize yourself with [www.allandomb.com](http://www.allandomb.com)

**CLASS 23: INFLUENCE II***April 5, 2011*

(B) Cialdini, R. (1984). Influence: The Psychology of Persuasion. Harper Collins Publishing: New York, NY. *Finish reading.*

**CLASS 24: APPLYING BEHAVIORAL ECONOMICS I***April 10, 2011*

(C) Issenberg, S. (2010). "Nudge the Vote." *The New York Times*, October 29, 2010.

Visit and familiarize yourself with [www.analystinstitute.org](http://www.analystinstitute.org)

**CLASS 25: APPLYING BEHAVIORAL ECONOMICS II***April 12, 2011*

Visit and familiarize yourself with [www.evivehealth.com](http://www.evivehealth.com)

**CLASS 26: FINAL PROJECT PRESENTATIONS***April 17, 2011*

No reading assigned.

**CLASS 27: FINAL PROJECT PRESENTATIONS***April 19, 2011*

No reading assigned.

**CLASS 28: CONCLUSION***April 24, 2011*

No reading assigned.

## 5. Additional Reading on Selected Course Topics

*Note that much of the material from these readings will be covered during class. These readings may be helpful if you would like a refresher on a given lecture topic. However, they are not required and are likely to be most useful after attending a lecture on a given topic rather than before.*

### HEURISTICS AND BIASES

Bazerman, M.H. (2006). Judgement in Managerial Decision Making. John Wiley & Sons: USA. Chapter 2: *Common Biases (Pages 13-33, skip Q12)*.

### PROSPECT THEORY

Thaler, R.H. (1992). The Winner's Curse: Paradoxes and Anomalies of Economic Life. Princeton University Press: Princeton, NJ. Chapter 6: *The Endowment Effect, Loss Aversion, and Status Quo Bias*.

Camerer, Colin F. (2000). "Prospect Theory in the Wild: Evidence from the Field." In D. Kahneman and A. Tversky (eds.), Choices, Values, and Frames. Cambridge University Press: Cambridge, UK.

### FAIRNESS AND COOPERATION

Kahneman, D., Knetsch J.L., and Thaler R. (1986) "Fairness as a Constraint on Profit Seeking: Entitlements in the Market," *The American Economic Review*, 76(4), p.728-741.

Thaler, R.H. (1992). The Winner's Curse: Paradoxes and Anomalies of Economic Life. Princeton University Press: Princeton, NJ. Chapter 2: *Cooperation*.

### SOCIAL NORMS

Thaler, R.H. & Sunstein, C.R. (2008). Nudge: Improving Decisions about Health, Wealth, and Happiness. Yale University Press: New Haven, CT. Chapter 3: *Following the Herd*.

### INTERTEMPORAL CHOICE AND WANT/SHOULD CONFLICT

Thaler, R.H. (1992). The Winner's Curse: Paradoxes and Anomalies of Economic Life. Princeton University Press: Princeton, NJ. Chapter 8: *Intertemporal Choice*.

Milkman, K.L., Rogers, T., & Bazerman, M.H. (2008). "Harnessing Our Inner Angels and Demons: What We Have Learned about *Want/Should* Conflicts and How that Knowledge Can Help Us Reduce Short-Sighted Decision Making," *Perspectives on Psychological Science*, Vol. 3, 324-338.

### COMMITMENT DEVICES AND MENTAL ACCOUNTING

Thaler, R.H. & Sunstein, C.R. (2008). Nudge: Improving Decisions about Health, Wealth, and Happiness. Yale University Press: New Haven, CT. Chapter 2: *Resisting Temptation*

**BOUNDED AWARENESS, OVERCONFIDENCE, AND BOUNDED ETHICALITY**

Russo, E.J. & Shoemaker, P.J.H. (2002). Winning Decisions: Getting it Right the First Time. Doubleday: New York. Pages 74-89.

Bazerman, M., & Chugh, D. (2006). Decisions without Blinders, *Harvard Business Review*. January 2006.

Banaji, M., Bazerman, M., & Chugh, D. (2003). How (Un)Ethical Are You? *Harvard Business Review*, 81(12), 56-64.

**EVALUATING BEHAVIORAL INTERVENTIONS**

Ayres, I. (2007). Super Crunchers. Bantam Books: New York, NY. *Chapter 2: Creating Your Own Data with the Flip of a Coin*.

**CONCLUSION**

Milkman, K.L., Chugh, D., & Bazerman, M. (2008). "How Can Decision Making Be Improved?" *Perspectives on Psychological Science*, 4(4): 379-383.