

**The Wharton School
University of Pennsylvania**

**OPIM 290: Introduction to Decision Processes
TR: 10:30-12:00, Spring 2008**

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Office Hours: Thursday: 3:00pm-4:00pm or by appointment.

Course Overview:

We make decisions every day of our lives. Sometimes we are happy with our decisions. Other times we are regretful and believe that, if we had the chance to do it again, we could make a better decision. On the other hand, many of us have the experience of making the same mistake repeatedly. In past decades psychologists, and more recently economists, have provided interesting insights regarding how people's decisions deviate from the optimal. This course is an introduction to the theory and empirical evidence on human decision processes. We will study how heuristics and biases affect individual decisions, and how individual decisions differ from those made at group level. The goal of this course is to develop an understanding of the nature and implications of human limitations in judgment and decision. This will help you to better predict decisions made by others, and will also assist in improving your own decisions.

Readings:

There is not a text book for this class. A bulk pack will be available from Reprographic containing all required readings. Students should complete the assigned readings before the class. The readings are typically related to, but will not directly overlap with class materials. Related papers that do overlap with class materials will be posted on Webcafe after each class.

Grading:

The course grade will be based on class participation (20%), a group project (20%), homework exercises (15%), Test 1 (20%) and Test 2 (25%). Students are expected to hand in their homework at the beginning of class on the day it is due. The two tests will consist of short answer questions about the readings. Detailed information about the group projects will be provided early in the semester. Group presentations will occur on April 17th and 22th during regular class time.

Lecture Schedule (Tentative, check Webcafe or class slides for updates)

	Date	Topic
1.	Jan. 17	Introduction
2.	Jan. 22	Context dependence (1)
3.	Jan. 24	Context dependence (2)
		Reference dependence and loss aversion (1)
4.	Jan. 29	Reference dependence and loss aversion (2)
5.	Jan. 31	Mental accounting (1)
6.	Feb. 5	Mental accounting (2) & Judgment of probability (1)
7.	Feb. 7	Judgment of probability (2)
8.	Feb. 12	Perception of randomness & Representativeness (1)
9.	Feb. 14	Representativeness (2) & Availability
10.	Feb. 19	Anchoring and adjustment & correlation and causality (1)
11.	Feb. 21	Correlation and causality (2) & Overconfidence and hindsight bias (1)
12.	Feb. 26	Overconfidence and hindsight bias (2) & Expected Utility theory (1)
13.	Feb. 28	Choice under uncertainty: Expected utility theory (risk aversion) (2)
14.	Mar. 4	Choice under uncertainty: Expected utility theory (risk aversion) (2) & Prospect theory
15.	Mar. 6	Review
		Spring Break
		Spring Break
16.	Mar.18	Test 1
17.	Mar.20	Intertemporal choice
18.	Mar.25	No class (idea for group meeting)
19.	Mar.27	Information and group thinking
20.	April. 1	Information and group thinking (II) & Bootstrapping and gut thinking
21.	April. 3	Introduction to game theory
22.	Apr. 8	Social dilemmas
23.	Apr. 10	Decision making and social norms
24.	Apr. 15	Emotion and decisions
25.	Apr. 17	Group presentation #1
26.	Apr. 22	Group presentation #2
27.	Apr. 24	Review
28.	April. 29	Test 2

Reading List

- Jan. 17 **Introduction**
1. Buchanan, L. and O'Connell, A. "A Brief History of Decision Making", *Harvard Business Review*, January, 2006, pp 32-41.
 2. Hastie, Dawes, *Rationality in an Uncertain World*, Chapter 2, pp25-36.
- Jan. 22 **Context dependence**
3. Schwartz, B. (2005). "Missed Opportunities", Chapters 6 in *The Paradox of Choice: Why More is Less*, HarperCollins Publishers, Inc. New York
 4. Gladwell M. (2005). "The Warren Harding Error: Why We Fall For Tall, Dark, and Handsome Men", Chapter 3 in *Blink: the power of thinking without thinking*. Little, Brown and company, New York.
- Jan. 24-29 **Reference dependence and loss aversion**
5. Kahneman, Daniel, Knetsch, Jack L., and Thaler, Richard H., "Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias." *Journal of Economic Perspectives*, 1991, pp193-206.
 6. Johnson, E.J., and Goldstein, D.G. (2003). Do defaults save lives? *Science*, 302, 1338-1339.
- Jan. 31 **Mental accounting**
7. Thaler, "Mental Accounting and Consumer Choice", *Marketing Science*, 1985
- Feb. 5-7 **Judgment of probability**
8. Dawes, Robyn M. "Probabilistic Rationality and Irrationality", *Everyday Irrationality*, Westview Press, 2001, pp77-92.
- Feb. 12 **Perception of randomness**
9. Belkin, L. (2002). "The Odds of That." *The New York Times*. August 11th
 10. Gilovich, T. and Tversky, A. (1989). "The Cold Facts About the 'Hot Hand' In Basketball." *Chance*, 2(1), pp. 16-21.
- Feb. 12-14 **Representativeness**
11. Tversky, A. and Kahneman, D. "Judgement under uncertainty: Heuristics and biases", *Science*, 185, 1974, p.1124-31.
 12. Gawande, A. (1999). "The Cancer Cluster Myth." *The New Yorker*, February 8th, 1999. pp.34-37.
- Feb. 14 **Availability**
13. Gigerenzer, G. (2004). "Dread Risk, Sept. 11, and Fatal Traffic Accidents." *Psychological Science*. 15(4), pp. 286-7.
- Feb. 19 **Anchoring and adjustment**
14. Hastie R. and Dawes R. (2001). "Anchoring and Adjustment." Chapter 5 in *Rationality in an Uncertain World*.
- Feb. 19-21 **Causality and covariation**
15. Redelmeier, D. and Tversky, A. (1996). "On the Belief that Arthritis Pain is Related to the Weather" *Proceedings of the National Academy of Sciences of the United States of America*, Vol. 93, No. 7. pp. 2895-2896.

- Feb. 21 **Overconfidence and hindsight bias**
 16. Russo and Schoemaker, "Managing Overconfidence", *Sloan Management Review*, 1992, Vol. 33, No. 2, pp. 7-17
- Feb. 26-28 **Choice under Uncertainty: Expected Utility theory**
 17. Rabin, Matthew "Diminishing marginal utility of wealth cannot explain risk aversion", *Choices, Values and Frames*, 11.
- March. 4 **Choice under Uncertainty: Prospect Theory**
 18. Colin F. Camerer "Prospect Theory in the Wild: Evidence from the field",
- Mar. 6 Review
 19. John S. Hammond, Ralph L. Keeney, Howard Raiffa, "The Hidden Traps in Decision Making" *Harvard Business Review Article*, January 01, 2006, pp118-126.
- Spring Break**
 Spring Break
- Mar. 18 Test 1
- Mar.20 **Intertemporal choice**
 20. Loewenstein, G., & Thaler, R. H. (1989). Anomalies: Intertemporal choice. *Journal of Economic Perspectives*, 3, 197-201.
- Mar. 25 **No class**
- Mar.27 **Information and group thinking**
 21. Bazerman, Max H.; Chugh, Dolly. "Decisions without blinders", *Harvard Business Review*, 2006, Vol. 84 Issue 1, p88-97.
 22. Sunstein, Cass R. "When Crowds Aren't Wise." *Harvard Business Review*, Sep2006, Vol. 84 Issue 9, p20-21.
- April. 1 **Bootstrapping and gut thinking**
 23. Dawes, R.M. (1979). The Robust Beauty of Improper Linear Models in Decision Making. *American Psychologist*, Vol 34(7), pp571-582
 24. Gladwell M. (2005). "The locked door: The secret life of snap decisions", Chapter 2 in *Blink: the power of thinking without thinking*. Little, Brown and company, New York.
- April. 3 **Introduction to game theory**
 25. Camerer, Colin F. *Behavioral Game Theory. Experiments in Strategic Interaction* , Princeton University Press, Princeton, New Jersey, 2003, pp1-24
- April. 8 **Social dilemmas**
 26. Baron, John, "Social dilemmas: cooperation versus defection", *Thinking and Decision*, Cambridge University Press, 2000, Chapter18, pp 433-462
 27. Dubner and Levitt (2005) "Why Vote?", *New York Times Magazine*, November 6.

- Apr. 10 **Decision making and social norms**
- 28. Cialdini, Robert B.; Reno, Raymond R.; Kallgren, Carl A. "A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places." *Journal of Personality and Social Psychology*. 1990 Jun Vol 58(6) 1015-1026
 - 29. Fehr, E. and Fischbacher, U. "Social norms and human cooperation" *TRENDS in Cognitive Sciences* Vol.8 No.4, April 2004, 185-190
- Apr. 15 **Emotion and decision**
- 30. Morse, Gardiner, "Decisions and Desires" *Harvard Business Review*, 2006 Jan;84(1):42, 44-51
 - 31. Gladwell, M. "Big and bad: How the S.U.V. ran over automotive safety". *New Yorker*, January 12, 2004. 28-33.
- Apr. 17 Group presentation #1
- Apr. 22 Group presentation #2
- Apr. 24 Review
- Apr. 29 Test 2