

Psychology of Decision Making

01:830:534:01

Syllabus Spring 2009

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Gretchen Chapman is Professor of Psychology and Chair of the Psychology Department at Rutgers University, New Brunswick. Her research focuses on the cognitive mechanisms underlying decision making



Class time and location

Rutgers University Psychology 01:830:534:01

Spring 2009 semester

Mon 2:45 - 5:00 pm

Psychology Building room 307 (Busch Campus)

Course Description: How are decisions actually made and how do these processes differ from the best or optimal methods for decision making? This course will contrast normative and descriptive theories of reasoning, judgment, and decision making. We will explore judgments of risk and uncertainty, including research on calibration, hypothesis testing, and heuristics and biases. An analysis of decision making will include a comparison of expected utility theory with the psychological model Prospect Theory. Other topics include preference reversals, affect and decision making, self control, game theory, and moral decisions. Many of the examples and applications will come from health and medicine; other areas of application include business, law, and public policy.

Readings: are available on the eCompanion class website

Assignments

- 1. Act as resource person for one of the 14 sessions. This involves doing the readings especially carefully, and being prepared to answer questions about them or summarize points.
- 2. Three homework assignments (problem sets) listed in the syllabus.
- 3. Three take-home essays. These will be handed out on three dates during the course and are due two weeks later.
 - As a substitute for any one of these essays, you can attend a decision making talk and write a summary and critical review. Relevant talk schedules at [Rutgers](#), [Princeton](#), and [Penn](#) will be circulated in class. A few qualifying talks known at press time are the following:

Date & Time	Speaker & Topic	Location
2/02 4:00 pm	Glenn Shafer : The philosophical implications of game-theoretic probability	Fiber Optics Auditorium, Busch Campus
2/09 1:30 pm	Leda Cosmides : Evolutionary psychology and Darwin's dream	Busch Student Ctr MPR
2/10 1:00 pm	Leda Cosmides : The architecture of human motivation: An evolutionary and computational approach	Psychology 101
3/02 12:00 pm	Jennifer Lerner	U Penn, Philadelphia
3/16 12:00pm	Tom Gilovich	U Penn, Philadelphia

Grading

- Take-home essays (3): 25% each
- Resource person session and overall class participation: 10%
- Homework assignments (3): 5% each

Due Dates

Assignment	Handed Out	Due Date
Homework 1	Feb. 16	Feb. 23
Essay 1	Feb. 23	Mar. 13
Homework 2	Mar. 2	Mar. 9
Essay 2	Apr. 6	Apr. 20
Homework 3	Apr. 20	Apr. 27
Essay 3	May 4	May 11

List of Topics and Readings

Session	Topic	Readings
Jan.26	Intro	Sanfey et al. (2006)
Feb. 2	Hypothesis Testing	Klayman & Ha (1987) Gigerenzer & Hoffrage (1995)
Feb. 9	Evolutionary basis of DM <i>Note: attend 1:30 Cosmides talk, then come to class</i>	Cosmides & Tooby (1996) Ermer et al. (2008)
Feb. 16	Probability Theory & calibration	Gigerenzer & Goldstein (1996) Koehler et al. (2002)
Feb. 23	Heuristics and Biases	Tversky & Kahneman (1974) Kahneman (2003) Gigerenzer (2008) Song & Schwartz (2009) Stewart (2009)
Mar. 2	Normative decision theory	Baron (2007) Chapters 10 & 14
Mar. 9	Prospect Theory	Kahneman & Tversky (1984) DeMartino (2006) Schwartz et al. (2008) Gottlieb et al. (2006)
Mar. 16	NO CLASS – SPRING BREAK	
Mar. 23	Decision Biases	Dijksterhuis et al. (2006) Payne et al. (2009) Halpern et al. (2007) Larrick & Soll (2008) Janiszewski & Uy (2008)
Mar. 30	Emotions and Decision Making	Loewenstein (2005) Lerner et al. (2003, 2004) Slovic & Peters (2006)
Apr. 6	Happiness	Hsee et al. (2008) Gilbert & Wilson (2007) Kahneman et al. (2006) Morewedge et al. (2007) Smith et al. (2006).
Apr. 13	Self control	McClure, et al. (2004) Chapman (2005) Weber et al. (2007)
Apr. 20	Game Theory & Cooperation	Rasmusen, R. (1989). Chapter 1. Camerer & Fehr (2006) Dawes & Messick (2000) Dana, Cain, & Dawes (2006)
Apr. 27	Money & taboo trade-offs	Vohs et al. (2006) Ginges et al (2007) Heyman & Ariely (2004) Bartels & Medin (2007)

May. 4	Morality	Mazar, Ariely et al. 2008 Sunstein (2005) Kahneman et al. 1986
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Assigned Readings

Date	Readings
Jan. 26 9 pp.	Sanfey, A.G., Loewenstein, G., McClure, S.M., Cohen, J.D. (2006). Neuroeconomics: Cross-currents in research on decision making. <i>Trends in Cognitive Sciences</i> , 10, 108-116.
Feb. 2 39 pp.	Gigerenzer, G. & Hoffrage, U. (1995). How to improve Bayesian reasoning without instruction: Frequency formats. <i>Psychological Review</i> , 102(4), 684-704. Klayman, J. and Ha, Y-W. (1987). Confirmation, disconfirmation, and information in hypothesis testing. <i>Psychological Review</i> , 94, 211-228.
Feb. 9 86 pp.	Cosmides, L. & Tooby, J. (1996). Are humans good intuitive statisticians after all? Rethinking some conclusions from the literature on judgment under uncertainty. <i>Cognition</i> , 58(1), 1-73. Ermer, E., Cosmides, L. & Tooby, J. (2008). Relative status regulates risky decision-making about resources in men: Evidence for the co-evolution of motivation and cognition. <i>Evolution and Human Behavior</i> , 29, 106-118.
Feb. 16 50 pp.	Gigerenzer, G. & Goldstein, D.G. (1996). Reasoning the fast and frugal way: Models of bounded rationality. <i>Psychological Review</i> , 103(4), 650-669. Koehler, D.J., Brenner, L., Griffin, D. (2002). The calibration of expert judgment: Heuristics and biases beyond the laboratory. In T. Gilovich, D. Griffin, & D. Kahneman (Eds), <i>Heuristics and biases: The psychology of intuitive judgment</i> . (pp. 686-715). New York, NY: Cambridge University Press.
Feb. 23 49 pp.	Tversky, A. & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. <i>Science</i> , 185, 1124-1131. Gigerenzer, G. (2008). Why heuristics work. <i>Perspectives on Psychological Science</i> , 3, 20-29. Kahneman, D. (2003). A perspective on judgment and choice: Mapping bounded rationality. <i>American Psychologist</i> , 58, 697-720. Song, H. & Schwarz, N. (2009). If it's difficult to pronounce, it must be risky:

	<p>Fluency, familiarity, and risk perception. <i>Psychological Science</i>.</p> <p>Stewart, N. (2009). The cost of anchoring on credit card minimum repayments. <i>Psychological Science</i>, 20(1), 39-41.</p>
Mar. 2 42 pp.	<p>Baron, J. (2007). <i>Thinking and Deciding</i> 4th Ed. New York: Cambridge University Press. Chapters 10 & 14.</p>
Mar. 9 28 pp.	<p>Kahneman, D. & Tversky, A. (1984). Choices, values, and frames. <i>American Psychologist</i>, 39(4), 341-350.</p> <p>DeMartino, B., Kumaran, D., Seymour, B., Dolan, R.J. (2006). Frames, biases, and rational decision making in the human brain. <i>Science</i>, 13, 684-687.</p> <p>Gottlieb, D.A., Weiss, T., & Chapman, G.B. (2007, March). Presentation of uncertainty information affects decision biases. <i>Psychological Science</i>, 18(3), 240-246.</p> <p>Schwartz, A., Goldberg, J., Hazen, G. (2008). Prospect theory, reference points, and health decisions. <i>Judgment and Decision Making</i>, 3(2), 174-180.</p>
Mar. 23 23 pp.	<p>Dijksterhuis, A. Bos., M.W., Nordgren, L.F., & van Baaren, R.B. (2006). On making the right choice: The deliberation-without-attention effect. <i>Science</i>, 311, 1005-1007.</p> <p>Payne, J.W., Samper, A., Bettman, J.R. & Luce, M.F. (2008). Boundary conditions on unconscious thought in complex decision making. <i>Psychological Science</i>, 19(11), 1118-1123.</p> <p>Halpern, S.D., Ubel, P.A. & Asch, D.A. (2007). Harnessing the power of defaults to improve healthcare. <i>NEJM</i>, 357, 1340-1344.</p> <p>Larrick, R.P. & Soll, J.B. (2008). The MPG illusion. <i>Science</i>, 320, 1593-1594.</p> <p>Janiszewski, C. & Uy, D. (2008). Precision of the anchor influences the amount of adjustment. <i>Psychological Science</i>, 19(2), 121-127.</p>
Mar. 30 24 pp.	<p>Loewenstein, G. (2005). Hot-cold empathy gaps and medical decision making. <i>Health Psychology</i>, 24, S49-S56.</p> <p>Lerner, J.S., Gonzalez, R.M., Small, D.A., & Fischhoff, B.(2003). Effects of fear and anger on perceived risk of terrorism. <i>Psychological Science</i>, 14, 144-150.</p> <p>Lerner, J.S., Small, D.A., & Loewenstein, G. (2004). Heart strings and purse strings: Carryover effects of emotions on economic decisions. <i>Psychological Science</i>, 15, 337-341.</p> <p>Slovic, P. & Peters, E. (2006). Risk perception and affect. <i>Current Directions in Psychological Science</i>, 15, 322-325.</p>

<p>Apr. 6 36 pp.</p>	<p>Hsee, C.K., Hastie, R., Chen, J. (2008). Hedonomics: Bridging decision research with happiness research. <i>Perspectives on Psychological Science</i>, 3, 224-243.</p> <p>Gilbert, D.T. & Wilson, T.D. (2007). Propection: Experiencing the future. <i>Science</i>, 317, 1351-1354.</p> <p>Kahneman, D., Krueger, A.B., Schkade, D., Schwarz, N., & Stone, A.A. (2006). Would you be happier if you were richer? A focusing illusion. <i>Science</i>, 312(5782), 1908-1910.</p> <p>Morewedge, C.K., Gilbert, D.T., Keysar, B., Berkovits, M.J., & Wilson, T.D. (2007). Mispredicting the hedonic benefits of segregated gains. <i>Journal of Experimental Psychology: General</i>, 136(4), 700-709.</p> <p>Smith, D.M., Sherriff, R.L., Damschroder, L., Loewenstein, G., & Ubel, P.A. (2006). Misremembering colostomies? Former patients give lower utility ratings than do current patients. <i>Health Psychology</i>, 25(6), 688-695.</p>
<p>Apr. 13 41 pp.</p>	<p>McClure, S.M. et al. (2004). Seperate neural systems value immediate and delayed monetary rewards. <i>Science</i>, 306, 503-507.</p> <p>Chapman, G.B. (2005). Short-term cost for long-term benefit: Time preference and cancer control. <i>Health Psychology</i>, 24, S41-S48.</p> <p>Read, D. (2004). Intertemporal choice. In D.J. Koehler & N. Harvey (Eds.) <i>Blackwell Handbook of Judgment and Decision Making</i>. Malden MA: Blackwell Publishing, pp. 424-443.</p> <p>Weber, E.U., Johnson, E.J., Milch, K.F., Chang, H., Brodscholl, J.C. & Goldstein, D.G. (2007). Asymmetric discounting in intertemporal choice: A query-theory account. <i>Psychological Science</i>, 18(6), 516-523.</p>
<p>Apr. 20 42 pp.</p>	<p>Rasmusen, R. (1989). <i>Games and information: An Introduction to Game Theory</i>. Cambridge, Mass.: Basil Blackwell. Chapter 1.</p> <p>Camerer, C.F. & Fehr, E. (2006). When does "economic man" dominate social behavior? <i>Science</i>, 311(5757), 47-52.</p> <p>Dawes, R.M. & Messick, D.M. (2000). Social dilemmas. <i>International Journal of Psychology</i>. Vol 35(2), 111-116.</p> <p>Dana, J., Cain, D.M, & Dawes, R.M. (2006). What you don't know won't hurt me: Costly (but quiet) exit in dictator games. <i>Organizational Behavior and Human Decision Processes</i>, 100(2), 193-201.</p>
<p>Apr 27 20 pp.</p>	<p>Vohs, K., Mead, N. & Goode, M. (2006). The psychological consequences of money. <i>Science</i>, 314, 1154-1156.</p> <p>Ginges, J., Atran, S., Medin, D., & Shikaki, K. (2007). Sacred bounds on rational resolution of violent political conflict. <i>Proceedings of the National Academy of</i></p>

	<p><i>Sciences, 104, 7357–7360.</i></p> <p>Heyman, J. & Ariely, D. (2004). Effort for payment: A tale of two markets. <i>Psychological Science, 15</i>(11), 787-793.</p> <p>Bartels, D.M, & Medin, D. L. (2007). Are morally motivated decision makers insensitive to the consequences of their choices? <i>Psychological Science, 18</i>(1), 24-28.</p>
<p>May 4</p> <p>69 pp.</p>	<p>Kahneman, D., Knetsch, J.L., and Thaler, R. (1986). Fairness as a constraint on profit seeking: Entitlements in the market. <i>American Economic Review, 76</i>(4), 728-741.</p> <p>Sunstein CR. (2005). Moral heuristics. <i>Behavioral and Brain Sciences 28</i> (4): 531-573.</p> <p>Mazar, N., Amir, O., & Ariely, D. (2008). The dishonesty of honest people: A theory of self-concept maintenance. <i>Journal of Marketing Research, 45</i>, 633-644.</p>

How to reach the professor:

Office Hours: Thursdays 11:00 am – 12:00 noon in Psychology Building room 215, Busch Campus. Feel free to drop in; no appointment needed. If this time doesn't work for you, set up a meeting by e-mailing me with 3 suggested times you are available. I am also usually available to talk for a few minutes right before or after class, if you have a quick question.

E-mail: gbc (at) rci (dot) rutgers (dot) edu. E-mail is an excellent way to reach me. When sending e-mail to me, use your Rutgers e-mail account. E-mail sent via other ISPs may be categorized as SPAM by my system and consequently would not reach me.

Phone: (732) 445-2640. Feel free to call. But if you don't reach me and need to leave a message, e-mail is more reliable way to get the message to me.