

## HUMAN JUDGMENT AND DECISION MAKING - 88-703

<b>Professor:</b>	Dr. Carey K. Morewedge Department of Social and Decision Sciences 319F Porter Hall morewedge@cmu.edu 412.268.6079 (office)
<b>Time:</b>	Wednesdays 4:30PM-7:20PM
<b>Location:</b>	A19D Porter Hall
<b>Office Hours:</b>	By appointment.
<b>Administrative Assistant:</b>	Ms. Eileen Simeone (eileens@andrew.cmu.edu)

### OVERVIEW

Whether choosing what to have for breakfast, whom to marry, or what career to pursue, our choices are based on judgments and decisions. In this course we examine the affective, cognitive, and motivational processes involved in human judgment and decision making, and the accuracy of human judgment and decision making.

### COURSE OBJECTIVES

By the end of the course, you should be able to:

1. Demonstrate an understanding of the psychological processes involved in judgment and decision making, and when those processes lead to accurate and inaccurate judgments and optimal and suboptimal decisions.
2. Assess the quality of empirical research in the field of judgment and decision making.
3. Articulate a novel hypothesis related to the field of judgment and decision making, cite appropriate research supporting that hypothesis, and propose experiments to test it.

### TEXTBOOKS

There is no textbook. All readings are on blackboard.

GRADES/ATTENDANCE

Grades are not curved.

**Participation (40%)**

Attendance is mandatory. If you miss more than one class for non-professional reasons (i.e., job interview, conference presentation) you will not pass the course. If you do miss a class, please notify the instructor as far in advance as possible to discuss how you will make up the work.

**Weekly Critique and Proposal (10%)**

Each week, you must turn in 1-2 page (single spaced) paper in which you critique the readings assigned for that week or propose novel research at the end of class. You may not turn in your weekly critique after class. **You may skip one week without penalty.** As suggested by the previous instructor of this course (Robyn Dawes):

Ask yourself whether you find the conclusion or conclusions convincing. If so, why? Which particular data, analyses, or arguments convinced you? If not, why not? What is unclear, lacking, or outright wrong? What alternative interpretations or arguments might be *plausible*?

Further, if you are convinced (of course, that's a matter of degree), what follows, or what applications might the conclusion have, or what experiment might be done next? If not convinced, what would be necessary (usually in the form of further observations, or experimental data) to convince you? Or if you find alternative interpretations or arguments more convincing, what might be done to support these--hopefully at the same time it refutes the author? (again a matter of degree, or perhaps refutes the author in some ways but not in others).

One trick I use: Negation. Insert a "not" in an assertion, or imagine the opposite result. Does it make sense? If not (i.e., if the "not" is not believable on prior grounds), then either the assertion or the result convey little or no information. For example, consider the argument that psychopathology is due to low self-esteem--supported by the finding that people who are drunk all the time, or abuse spouses or children, or who go in and out of mental hospitals don't have high self-esteem. Ask yourself whether a finding that such people have as high self-esteem as anyone else would be at all plausible. What sort of (social) world would that be? My conclusion: The finding proves nothing at all about the origins of pathological behavior. (All mathematical arguments that X implies Y can be phrased in terms of showing that if X didn't imply Y then both Z and not-Z would be true. Since--accepting the Law of Contradiction--we believe that Z and not-Z cannot be both true, we accept that X implies Y by virtue of the impossibility it doesn't. In our work, we must substitute implausibility for impossibility.)

**Research Paper (40%)**

The primary goal of this class is to increase your proficiency in research. Your research paper is thus your most important assignment for this class. Please schedule a meeting with me to discuss the project you intend to propose. The meeting must take place by October 30<sup>th</sup>.

By November 25<sup>th</sup> at 7:20pm you will turn in a research paper (limit of 50 pages, double-spaced) in which you have articulated a novel hypothesis directly relevant to human judgment and decision making and have proposed rigorous experiments to test that hypothesis. The paper should be written in the style of the American Psychological Association and thus include an introduction, methods and anticipated results section for each experiment, and a general discussion. If you are unfamiliar with APA style, please refer to the 5<sup>th</sup> edition of the APA publication manual for guidance.

**Research Presentation (10%)**

After Thanksgiving, you will present your novel hypothesis and experiments in class. Please plan on giving a 20-minute presentation and answering questions for 5 minutes afterward. I strongly recommend practicing in advance.

**Late Assignment & Extension Policy**

If you are attending a professional conference you may ask for a one week extension on the paper assignment. Otherwise, a late paper will be penalized a full letter grade unless accompanied by a note from a doctor. The paper will not be accepted more than one week after it is due.

**Laptop Policy**

Laptop use is discouraged as it is most likely to distract you from participating in the discussion. You may bring a laptop to class if you agree to use it to take notes and refer to the readings.

**Academic Honesty**

**You must be the sole author of work you submit in this course.** Plagiarism will result in a failing grade in the course and a referral to the Dean of Students' Office for further action. Please note that you may not submit or present any assignment completed in this class for credit in another course, and you may not submit collaborative work (e.g., with another student or advisor). Doing so will result in a failing grade in this course.

Please read articles in the order that they are listed.

Date	Topic and Required Readings
8/26/09	<p><b>Day 1: Ingredients of judgments and decisions</b></p> <p>Tversky, A., &amp; Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. <i>Science</i>, 185, 1124-1131.</p> <p>Weber, E., &amp; Johnson, E. (2009). Mindful judgment and decision making. <i>Annual Review of Psychology</i>, 60, 53-85.</p>
9/2/09	<p><b>Day 2: Systems of Reasoning</b></p> <p>Denes-Raj, V. &amp; Epstein, S. (1994). Conflict between intuitive and rational processing: When people behave against their better judgment. <i>Journal of Personality and Social Psychology</i>, 66, 819-829.</p> <p>Evans, J. (2003). In two minds: Dual-process accounts of reasoning. <i>Trends in Cognitive Sciences</i>, 7, 454-459.</p> <p>Kahneman, D. &amp; Frederick, S. (2002). Representativeness revisited: Attribute substitution in intuitive judgment. In T. Gilovich, D. Griffin, and D. Kahneman, (Eds.) <i>Heuristics and Biases: The Psychology of Intuitive Judgment</i>, pp. 49–81. New York: Cambridge University Press</p> <p><b>Further Recommendations:</b></p> <p>Lieberman, M. D., Gaunt, R., Gilbert, D. T., &amp; Trope, Y. (2002). Reflexion and reflection: A social cognitive neuroscience approach to attributional inference. In M. Zanna (Ed.), <i>Advances in experimental social psychology</i>, Vol. 34 (pp. 199-249). New York: Elsevier.</p> <p>Shah, A. K., &amp; Oppenheimer, D. M. (2008). Heuristics made easy: An effort-reduction framework. <i>Psychological Bulletin</i>, 134, 207-222.</p>
9/9/09	<p><b>Day 3: Encoding/Accessibility</b></p> <p>Bargh, J. A., &amp; Chartrand, T. L. (1999). The mind in the middle: A practical guide to priming and automaticity research. In H. T. Reis and C. M. Judd (Eds.) <i>Handbook of Research Methods in Social and Personality Psychology</i>, pp. 253-285. New York: Cambridge University Press.</p> <p>Holland, R. W., Hendricks, M., &amp; Aarts, H. (2005). Smells like clean spirit: Nonconscious effects of scent on cognition and behavior. <i>Psychological Science</i>, 16, 689-693.</p> <p>Forster, J., &amp; Liberman, N. (2007). Knowledge activation. In A. W. Kruglanski &amp; E. T. Higgins (Eds.) <i>Social Psychology: Handbook of Basic Principles</i>, pp. 201-231. New York: Guilford Press.</p>

	<p><b>Further Recommendations:</b></p> <p>Higgins, E. T., Rholes, W. S., &amp; Jones, C. R. (1977). Category accessibility and impression formation. <i>Journal of Experimental Social Psychology</i>, 13, 141-154.</p>
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9/16/09	<p><b>Day 4: Hypothesis Testing</b></p> <p>Klayman, J., &amp; Ha, Y. W. (1987). Confirmation, disconfirmation, and information in hypothesis testing. <i>Psychological Review</i>, 94, 211-22.</p> <p>Mussweiler, T., &amp; Strack, F. (2000). The use of category and exemplar knowledge in the solution of anchoring tasks. <i>Journal of Personality and Social Psychology</i>, 78, 1038-1052.</p> <p>Fischhoff, B. &amp; Beyth-Marom, R. (1983). Hypothesis evaluation from a Bayesian perspective. <i>Psychological Review</i>, 90, 239-260.</p> <p><b>Further Recommendations:</b></p> <p>Fischhoff, B. (1975). Hindsight ≠ foresight: The effect of outcome knowledge on judgment under uncertainty. <i>Journal of Experimental Psychology: Human Perception and Performance</i>, 1, 299-299.</p> <p>Gilbert, D. T. (1991). How mental systems believe. <i>American Psychologist</i>, 46, 107-119.</p>
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9/23/09	<p><b>Day 5: Evaluation – Unidimensional</b></p> <p>Kahneman, D., &amp; Miller, D. (1986). Norm theory: Comparing reality to its alternatives. <i>Psychological Review</i>, 93, 237-251.</p> <p>Mussweiler, T. (2003). Comparison processes in social judgment: Mechanisms and Consequences. <i>Psychological Review</i>, 110, 472-489.</p> <p>Morewedge, C. K., Gilbert, D. T., &amp; Wilson, T. D. (2005). The least likely of times: How remembering the past biases forecasts of the future. <i>Psychological Science</i>, 16, 626-630.</p> <p><b>Further Recommendations:</b></p> <p>Medvec, V. H., Madey, S. F., &amp; Gilovich, T. (1995). When less is more: Counterfactual thinking and satisfaction among Olympic medalists. <i>Journal of Personality and Social Psychology</i>, 69, 603-610.</p> <p>Parducci, A. (1965). Category judgment: A range-frequency model. <i>Psychological Review</i>, 72, 407-418.</p> <p>Schwarz, N. (1999). Self-reports: How the questions shape the answers. <i>American Psychologist</i>,</p>
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	<p>54, 93-105.</p> <p>Stevens, S. S. (1975). <i>Psychophysics: Introduction to its perceptual, neural, and social prospects</i>. New Brunswick, NJ: Transaction Publishers.</p>
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9/30/09	<p><b>Day 6: Evaluation – Multi-dimensional</b></p> <p>Shafir, E., Simonson, I., &amp; Tversky, A. (1993). Reason-based choice. <i>Cognition</i>, 49, 11-36.</p> <p>Hsee, C. K, Loewenstein, G. F., Blount, S. &amp; Bazerman, M. H. (1999). Preference reversals between joint and separate evaluation of options: A review and theoretical analysis. <i>Psychological Bulletin</i>, 125, 576-590.</p> <p>Busemeyer, J. R., Barkan, R., Mehta, S., Chaturvedi, A. (2007). Context effects and models of preferential choice: Implications for consumer behavior. <i>Marketing Theory</i>, 7, 39-58.</p>
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10/7/09	<p><b>Day 7: Evaluation – Metacognition</b></p> <p>Nisbett, R.E. &amp; Wilson, T.D. (1977). Telling more than we know: Verbal reports on mental processes. <i>Psychological Review</i>, 84, 231-259.</p> <p>Lee, L., Frederick, S., &amp; Ariely, D. (2006). Try it, you'll like it: The influence of expectation, consumption, and revelation on preferences for beer. <i>Psychological Science</i>, 17, 1054-1058.</p> <p>Schooler, J. W. (2002). Re-representing consciousness: Dissociations between experience and meta-consciousness. <i>Trends in Cognitive Sciences</i>, 6, 339-344.</p> <p>Alter, A. L., Oppenheimer, D. M., Epley, N., Eyre, R. N. (2007). Overcoming intuition: Metacognitive difficulty activates analytic reasoning. <i>Journal of Experimental Psychology: General</i>, 136, 569-576.</p> <p><b>Further Recommendations:</b></p> <p>Oppenheimer, D. M. (2008). The secret life of fluency. <i>Trends in Cognitive Sciences</i>, 237-241.</p> <p>Schwarz, N., Bless, H., Strack, F., Klumpp, G., Rittenauer-Schatka, H., &amp; Simons, A. (1991). Ease of retrieval as information: Another look at the availability heuristic. <i>Journal of Personality and Social Psychology</i>, 61, 195-202.</p> <p>Wilson, T.D. &amp; Schooler, J.W. (1991). Thinking too much: Introspection can reduce the quality of preferences and decisions. <i>Journal of Personality and Social Psychology</i>, 60, 181-192.</p>
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<b>10/14/09</b>	<p><b>Day 8: Evaluation – Affect and Emotion</b></p> <p>Zeelenberg, M. (1999). Anticipated regret, expected feedback, and behavioral decision making. <i>Journal of Behavioral Decision Making</i>, 12, 93-106.</p> <p>Chapman, H. A., Kim, D. A., Susskind, J. M., &amp; Anderson, A. K. (2009). In bad taste: Evidence for the oral origins of moral disgust. <i>Science</i>, 323, 1222-1226.</p> <p>Lerner, J. S., Small, D. A., &amp; Loewenstein, G. (2004). Heart Strings and Purse Strings: Carryover effects of emotions on economic decisions. <i>Psychological Science</i>, 15, 337-341.</p> <p>Loewenstein, G., &amp; Lerner, J. S. (2003). The role of affect in decision making. In R. J. Davidson, K. R. Scherer, &amp; H. H. Goldsmith (Eds.), <i>Handbook of Affective Sciences</i> (pp. 619-642). Oxford University Press.</p> <p><b>Further Recommendations:</b></p> <p>Bechara, A., Damasio, H., Tranel, D., &amp; Damasio, A. R. (1997). Deciding advantageously before knowing the advantageous strategy. <i>Science</i>, 275, 1293-1295.</p> <p>Finucane, M. L., Alhakami, A., Slovic, P., &amp; Johnson, S. M. (2000). The affect heuristic in judgments of risks and benefits. <i>Journal of Behavioral Decision Making</i>, 13, 1-17.</p> <p>Frederick, S. &amp; Loewenstein, G. (1999). Hedonic adaptation. In D. Kahneman, E. Diener, &amp; N. Schwartz, <i>Well-being: The foundations of hedonic psychology</i> (pp. 302-330). New York: Russell Sage.</p> <p>Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. <i>Psychological Review</i>, 108(4), 814-834.</p> <p>Zajonc, R. B. (1980). Feeling and thinking: Preferences need no inferences. <i>American Psychologist</i>, 35, 151-175.</p>
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<b>10/17/09</b>	<b>Midterm Examination Due at 11:59pm</b>
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<b>10/21/09</b>	<p><b>Day 9: Evaluation – Motivation</b></p> <p>Förster, J., Liberman, N., &amp; Friedman, R. S. (2007). Seven principles of goal activation: A systematic approach to distinguishing goal priming from priming of non-goal constructs. <i>Personality and Social Psychology Review</i>, 11, 211-233.</p> <p>Kunda, Z. (1990). The case for motivated reasoning. <i>Psychological Bulletin</i>, 108, 480-498.</p> <p>Morewedge, C. K., &amp; Norton, M. I. (2009). When dreaming is believing: The (motivated) interpretation of dreams. <i>Journal of Personality and Social Psychology</i>, 96, 249-264.</p>
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	<p><b>Further Recommendations:</b></p> <p>Balcetis, E., &amp; Dunning, D. (2006). See what you want to see: Motivational influences on visual perception. <i>Journal of Personality and Social Psychology</i>, 91, 612-625.</p> <p>Dana, J., &amp; Loewenstein, G. (2003). A social science perspective on gifts to physicians from industry. <i>JAMA</i>, 290, 252-255.</p> <p>Ditto, P. H., Scepansky, J. A., Munro, G. D., Apanovitch, A. M., &amp; Lockhart, L. K. (1998). Motivated sensitivity to preference-inconsistent information. <i>Journal of Personality and Social Psychology</i>, 75, 53-69.</p>
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<p><b>10/28/09</b></p>	<p><b>Day 10: Evaluation – Chance</b></p> <p>Langer, E. J. (1975). The illusion of control. <i>Journal of Personality and Social Psychology</i>, 32, 311-328.</p> <p>Oskarasson, A. T., Van Boven, L. V., McClelland, G. H., &amp; Hastie, R. (2009). What's next? Judging sequences of binary events. <i>Psychological Bulletin</i>, 135, 262-285.</p> <p>Simmons, J. P., &amp; Nelson, L. D., (2006). Intuitive confidence: Choosing between intuitive and nonintuitive alternatives. <i>Journal of Experimental Psychology: General</i>, 135, 409-428.</p> <p><b>Further Recommendations:</b></p> <p>Risen, J. L., &amp; Gilovich, T. (2008). Why people are reluctant to tempt fate. <i>Journal of Personality and Social Psychology</i>, 95, 293-307.</p> <p>Tversky, A., &amp; Koehler, D. J. (1994). Support theory: A nonextensional representation of subjective probability. <i>Psychological Review</i>, 101, 547-567.</p>
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<p><b>10/30/09</b></p>	<p><b>Deadline for receiving approval for your research topic.</b></p>
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<p><b>11/4/09</b></p>	<p><b>Day 11: Accuracy of Inferences</b></p> <p>Epley, N., &amp; Gilovich, T. (2006). The anchoring and adjustment heuristic: Why adjustments are insufficient. <i>Psychological Science</i>, 17, 311-318.</p> <p>Dawes, R. M., Faust, D., &amp; Meehl, P. E. (1989). Clinical versus actuarial judgment. <i>Science</i>, 243, 1668-1674.</p> <p>Moore, D. A., &amp; Healy, P. J. (2008). The trouble with overconfidence. <i>Psychological Review</i>, 115(2), 502-517.</p> <p>Taylor, S. E., &amp; Brown, J. D. (1988). Illusion and well-being: A social-psychological perspective on mental health. <i>Psychological Bulletin</i>, 103, 193-210.</p>
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	<p><b>Further Recommendations:</b></p> <p>Einhorn, H. J., &amp; Hogarth, R. M. (1978). Confidence in judgment: Persistence of the illusion of validity. <i>Psychological Review</i>, 85, 395-416.</p> <p>Lerner, J. S., &amp; Tetlock, P. E. (1999). Accounting for the effects of accountability. <i>Psychological Bulletin</i>, 125, 255-275.</p> <p>Massey, C &amp; Thaler, R. (2005). Overconfidence vs. Market Efficiency in the National Football League. <i>NBER Working Paper No. W11270</i>.</p>
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<b>11/11/09</b>	<p><b>Day 12: Accuracy of Preferences</b></p> <p>Hsee, C., &amp; Hastie, R. (2006). Decision and experience: Why don't we choose what makes us happy? <i>Trends in Cognitive Sciences</i>, 10, 31-37</p> <p>Gilbert, D. T., &amp; Wilson, T. D. (2007). Propection: Experiencing the future. <i>Science</i>, 317, 1351-1354.</p> <p>Kahneman, D., Fredrickson, B. L., Schreiber, C. A., &amp; Redelmeier, D. A. (1993). When more pain is preferred to less: Adding a better end. <i>Psychological Science</i>, 4, 401-405.</p> <p>Morewedge, C. K., Kassam, K. S., Hsee, C. K., &amp; Caruso, E. M. (2009). Duration sensitivity depends on stimulus familiarity. <i>Journal of Experimental Psychology: General</i>, 138, 177-186.</p>
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<b>11/18/09</b>	<p><b>Day 13: Consequences of Decision-Making</b></p> <p>Ariely, D., &amp; Norton, M. I. (2008). How actions create –not just reveal - preferences. <i>Trends in Cognitive Sciences</i>, 12, 13-16.</p> <p>Johnson, E. J., Häubl, G., &amp; Keinan, A. (2007). Aspects of endowment: A query theory of value construction. <i>Journal of Experimental Psychology: Learning, Memory, and Cognition</i>, 33, 461-474.</p> <p>Gawronski, B., Bodenhausen, G. V., Becker, A. P. (2006). I like it, because I like myself: Associative self-anchoring and post-decisional change of implicit evaluations. <i>Journal of Experimental Social Psychology</i>, 43, 221-232.</p> <p>Morewedge, C. K., Shu, L. L., Gilbert, D. T., &amp; Wilson, T. D. (2009). Bad riddance or good rubbish? Ownership and not loss aversion causes the endowment effect. <i>Journal of Experimental Social Psychology</i>, 45, 947-951.</p>
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<b>11/25/09</b>	<b>Research Proposal (Paper) Due at 7:20pm /No Class</b>
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<b>12/2/09</b>	<b>Day 14: Research Proposal Presentations</b>
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<b>TBA</b>	<b>FINAL EXAM will take place between 12/7 and 12/11</b>
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