



**HARVARD KENNEDY SCHOOL**  
**PROFESSIONAL JUDGMENT AND DECISION MAKING**  
**Syllabus, Fall 2014, MLD- 301, MWF 2:40 - 4:00 PM, Littauer 280**

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Professor: Dr. Jennifer Lerner  
Email: jennifer\_lerner@harvard.edu  
Office: Littauer 352, Wednesdays 4:15 - 5:30 PM<sup>1</sup>

Prof. Lerner's Assistant: Mr. Jamie Georgia  
Phone: 617-496-3440  
Office: Taubman 377  
Email: jamie\_georgia@hks.harvard.edu

Teaching Fellow: Dr. Danial Lashkari  
Email: lashkari@fas.harvard.edu  
Section: Fridays 2:40 - 4:00 PM  
Location: Littauer 280

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## **COURSE OVERVIEW**

From classical to contemporary times, two abilities remain essential in professional settings: wise judgment and effective decision making. Should we choose the risky option or the sure thing? Are we selecting the best talent? How can we know? How much risk can we tolerate? Are feelings biasing our perceptions? How should we structure accountability? How likely is it that our competitors have discovered our plan? Should we aim for larger delayed gains or smaller immediate gains? The list goes on and on.

This course does not address what specifically to choose or what specifically to estimate, but *how* to choose and *how* to estimate. Choosing well and estimating wisely are difficult skills, which like any other difficult skills (e.g., balancing on a tight rope), can be improved.<sup>2</sup> Also as with any other skills, there are natural human tendencies (e.g., looking down while on the rope) that will trip you up. Therefore, this class also addresses how to avoid the most common errors and biases that trip us up.

Specifically, grounded in theories and evidence from **psychology, behavioral economics, and neuroscience**, this class helps students understand when and why humans depart from standards of accuracy and rationality in judgment and decision making. Moreover, it teaches students how to become “choice architects,” designing better judgment and decision environments in order to reduce bias and inaccuracy, thus making organizations smarter.

## **INTENDED STUDENTS**

Enrollment is open to any Harvard University student with graduate student standing. However, students enrolled at the Harvard Kennedy School have priority. Undergraduates may enroll only by permission of the instructor. There are no specific prerequisites but prior coursework in psychology, economics, and/or statistics will be a significant help. No space for auditors.

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<sup>1</sup> A sign-up sheet will be posted near my office door.

<sup>2</sup> Dawes, R. (1988). *Rational choice in an uncertain world*. Orlando, FL: Harcourt Brace Jovanovich p. 2.

## COURSE GOALS

Throughout the course, the overarching goals are to: (1) Learn about the academic field of judgment and decision making, its major theories, results, and debates. (2) Become a critical consumer of research findings, learning: (a) how to identify decision science studies on a given topic and (b) the methodological standards for evaluating the soundness of such studies. (3) Develop the ability to effectively write and speak about decision science theories, results, and debates. (4) Acquire practical skills for improving your own judgments and decisions. (5) Acquire knowledge of which biases individuals can fix with training/knowledge and which biases individuals cannot fix unless managers engage in institutional design (e.g., nudges). (6) Develop a cap-stone policy project in which you apply the material in a way that will improve professional decision making processes. Possible selections include legal process, government institutions (e.g., defense & intelligence), medical settings, and other areas where high stakes decisions are made regarding policy.

## GRADING POLICY

1) Quizzes	40%
2) Policy Memo	25%
3) Cumulative Exam	25%
4) Class Participation	10%
TOTAL: 100%	

### 1) Quizzes (40%)

Every class for which readings are assigned, there will be a 45% chance of having to take a short quiz that tests your knowledge of the readings assigned that day. Whether or not you have a quiz will be determined by a random number generator. Thus, having a quiz one day is not predictive of whether you will have a quiz the next day (i.e., don't fall prey to the gambler's fallacy!).<sup>3</sup> These quizzes are designed to ensure that you have carefully read all that you have been assigned to read. So long as you carefully do the readings, and you retain the most *important* information in them, you should not have to study for these quizzes. You will do well on them. Most of the quizzes will require you to summarize one (or more) of the readings, but other quiz formats (e.g., multiple choice; short answer) are possible. By analogy, if the quiz readings pertained to Shakespeare's *Romeo and Juliet*, the quiz question might be: "Why were Romeo and Juliet forbidden to marry?" The answer would be: "They were forbidden because they came from feuding families." The quiz would not ask you to remember inconsequential details like: "Who died first – Romeo or Juliet?" The point (spoiler alert) is that they both died. Each quiz will be graded on a 3-point scale ranging from 0 to 2. On any day that a quiz occurs, it will take place at the start of class. You will receive a score of zero if you are absent or late for a quiz. Your lowest quiz score will be dropped.

### 2) Policy Memo (25%)

Teams of two students will work together on the policy memo. Teams will form on the basis of interest in a topic. Dr. Lashkari will coordinate a system for pairing students based on interests. The memo should be 2-3 single-spaced pages (12 pt. font) and should be submitted by 3pm EST on Monday, December 8th with the name of each partner. You and your partner will receive the same grade, so effective collaboration is essential. The main considerations in

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<sup>3</sup> J. Simmons syllabus, OPIM/MGMT 690: Managerial Decision Making, University of Pennsylvania Wharton School of Business, Fall 2013

grading will be the extent to which your memo demonstrates intelligent, resourceful, and convincing (i.e., well-reasoned and well-articulated) use of course concepts.

As motivation for your memo, consider the following decision-making process from history. The Bay of Pigs Invasion, a failed military invasion of Cuba undertaken by the CIA-sponsored paramilitary group Brigade 2506 (primarily Cuban exiles), took place on April 17th, 1961. Before the invasion, the US Joint Chiefs of Staff submitted a report to President Kennedy saying that the operation had a “fair chance” of success. The report’s author, Brigadier General David Gray, intended this expression to convey pessimism about the operation. However, President Kennedy interpreted “a fair chance” as indicating optimism.<sup>4</sup> Gray believed that this misunderstanding played a key role in Kennedy’s decision. As he reported years later, “We thought other people would think that ‘a fair chance’ would mean ‘not too good.’” The invasion was a disaster in many ways. Clearly, the quality of a decision *process* can change the course of history.

Your task is to design and describe an optimal *process* for decisions. You can do so with one of the two options described below. Alternatively, you may propose a new option but *only* if: (a) I approve your written description by Wednesday, November 17th and if (b) you find at least two other team members in class who are interested in writing on the same topic.

Option 1: Design an optimal selection and promotion *process* for human resources that: identifies and attracts desired talent, diminishes impact of information that is non-diagnostic of potential performance, optimally matches individual attributes to organizational needs, communicates clear standards of merit/performance, rewards achievement according to merit/performance-based standards, and (the kicker) reduces bias in all stages. Begin by identifying the biases that might creep in. Then engineer a system to reduce their impact. Can you prevent any of them from naturally occurring? If not, can you identify and reduce their impact on outcomes? Address your memo to the (hypothetical) CEO of a multinational corporation with cross sector operations.

Option 2: Design an optimal policy briefing *process* that would produce an evidence-based, intelligent, politically feasible, creative, time-sensitive, forward-looking, resource efficient, and (the kicker) unbiased decision. For example, what is the ideal process for briefing a world leader (perhaps Obama) about options regarding the current crisis in Iraq? How many people should be in the briefing room? What will the mood of the room be? Begin by identifying all the biases that might creep in. Then engineer a system to reduce their impact. Can you prevent any of them from naturally occurring? If not, can you identify and reduce their impact on outcomes? Address your memo to the Commander in Chief of a powerful nation.

### 3) Cumulative Exam (25%)

There will be an **in-class cumulative exam** during class time on Monday, November 24<sup>th</sup>. A review for the exam will be held during class time on the preceding Monday. Please come to the review prepared with any questions you may have regarding the content of the course.

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<sup>4</sup> Several scholars converge on this analysis; I thank Richard Zeckhauser and Jeff Friedman for this particular summary.

#### 4) Class Participation (10%)

Although participation counts only for 10% of your final grade, I will weigh it heavily when/if a semester grade hangs at the balance of two letter grades such as B to A-. All you need to do in order to earn *all* of the participation points is:

- (a) complete the online student survey on Friday, September 12th by 9pm;
- (b) attend at least two meetings of the discussion section, which take place on Fridays;
- (c) submit (*in the form of 2 Powerpoint slides*) two (2) real-world examples/applications or nudges that relate to topics discussed in class. These may be drawn from a personal experience, politics, newspapers, magazine articles, novels, history, etc. If the examples you submit make sense (as judged by Dr. Lerner and Dr. Lashkari), they will be worth five (3) points each for a total of 6% of your final grade.

One of these examples must be submitted in section by or on Friday, October 24th. The final one must be submitted in section by or on Friday, November 14th.

#### CONVERSATION

I encourage you to come to office hours with me and/or with Dr. Lashkari in order to further converse about course topics. We will also host a series of free lunch sessions at local restaurants. If you wish to be considered for a lunch session, please Email your name to my assistant, Mr. Jamie Georgia, by Friday, September 12th. He will randomly select 3-5 names per lunch and the details will be announced at least one week in advance.

#### ACADEMIC INTEGRITY

Almost every year, HKS expels students for cheating. You must observe HKS and Harvard University rules on honesty and ethics, which you can find at the following website: <http://www.hks.harvard.edu/degrees/registrar/procedures/integrity>. Please also encourage your classmates to uphold the highest standards. Let us build a community that values correct attribution of others' ideas.

*Remember that "any sentences or paragraphs taken verbatim from the writing of (or interviews with) any other person or persons, or from your own writing that has been published elsewhere or stated in an address, must be placed in quotation marks and their source must be clearly identified. Changing the wording of a sentence or passage slightly does **not** evade the requirement for citation. Indeed, whenever you draw an important argument or insight from someone else, even if you reword it into your own words, a reference to the source is required. Including material from others in the assignments without appropriate quotation marks and citations is regarded as a serious violation."<sup>5</sup>*

You can make sure that you do not inadvertently plagiarize if you follow good note-taking "hygiene." Harvard has prepared a website on how to keep track of your sources: <http://isites.harvard.edu/icb/icb.do?keyword=k70847&pageid=icb.page342057>. Remember, turning an assignment in late carries a far less severe penalty than turning in an assignment that contains plagiarism.

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<sup>5</sup> D. Keith syllabus, IGA-408M: Learning from the Failure of Climate Policy, Harvard Kennedy School, Spring 2014

## CLASS SCHEDULE

WEEK	TOPICS	CLASS DATES AND ASSIGNMENTS (subject to change; check draft date)
1	<b>Introduction</b> , overview of course, dual-process thought, parallel processing	<b>9.5:</b> no reading; opening lecture
2	<b>Choice:</b> bias, defaults, descriptive versus normative theories of JDM, automatic (system 1) versus controlled (system 2) processing, behavioral economics	<p><b>9.8:</b> Dawes, R. (1988). <i>Rational choice in an uncertain world</i>. Orlando, FL: Harcourt Brace Jovanovich pp. 2-10.</p> <p><b>9.8:</b> Litvak, P. &amp; Lerner, J.S. (2009). "Cognitive Bias." In <i>the Oxford companion to the affective sciences</i>, David Sander and Klaus Scherer. New York, NY: Oxford University Press. pp. 89-91.</p> <p><b>9.10:</b> Gilovich, T.D. &amp; Griffin, D.W. (2010). "Judgment and decision making" and "normative theories." In the <i>Handbook of social psychology</i>, pp. 542-546 and pp. 554-557 (up to 3rd line only on 557).</p> <p><b>9.12:</b> Instead of attending section, complete 45-minute online student survey <i>anytime</i> today (due 9 PM), details forthcoming.</p>
3	<b>Choice:</b> libertarian paternalism, humans versus "econs", nudges, defaults, prospect theory, framing effects, loss aversion	<p><b>9.15:</b> Thaler, R.H. &amp; Sunstein, C.R. (2008). "Introduction." In <i>Nudge: Improving Decisions About Health, Wealth, and Happiness</i>. Yale University Press. pp. 1-14.</p> <p><b>9.15:</b> Bennhold, K. "Britain's Ministry of Nudges." <i>New York Times</i>. December 7, 2013.</p> <p><b>9.17:</b> Thaler, R.H. &amp; Sunstein, C.R. (2008). "Choice Architecture, Chapter 5." In <i>Nudge: Improving Decisions About Health, Wealth, and Happiness</i>. Yale University Press. pp. 83-102.</p> <p><b>9.19:</b> Section, open discussion</p>
4	<b>Choice:</b> bounded rationality, prospect theory, framing effects, preference reversals, certainty, rebate & bonus framing, risk aversion, mental accounting	<p><b>9.22:</b> Kahneman, D. (2003). Maps of bounded rationality: psychology for behavioral economics, <i>American Economic Review</i>, pp.1454-1460 only. (Skim technical details, if desired)</p> <p><b>9.24:</b> Bazerman, M. &amp; Moore, D. (2013). Framing and the reversal of preferences. <i>Judgment in managerial decision making</i> (8<sup>th</sup> ed.). Hoboken, NJ: John Wiley &amp; Sons. pp. 82-97.</p> <p><b>9.26:</b> Section, open discussion</p>
5	<b>Choice:</b> emotional attachments to objects and ideas, the endowment effect, sunk cost bias, escalation of	<p><b>9.29:</b> Lerner, J.S., Small, D., &amp; Loewenstein, G. (2004). Heart strings and purse strings: Carryover effects of emotions on economic decisions. <i>Psychological Science</i>, 15(5), pp. 337-341. (Skim technical details, if desired)</p> <p><b>10.1:</b> Brest, P. &amp; Krieger, L.H. (2009). "Sunk costs." In <i>Problem solving</i>,</p>

	commitment to a failing course of action	<p><i>decision making, and professional judgment: a guide for lawyers and policy makers</i>. Oxford University Press. pp 434-437 &amp; “the irrational escalation of commitment.” pp. 558-562.</p> <p><b>10.3:</b> Section, open discussion</p>
6	<p><b>Choice:</b> intertemporal tradeoffs, discount rates, discounted utility model, techniques for self control, present bias, delay of gratification, appraisal themes, sadness effects on valuation, relation between lab results and real-world behavior</p>	<p><b>10.6:</b> Brest, P. &amp; Krieger, L.H. (2009). “Intertemporal choice.” in <i>Problem solving, decision making, and professional judgment: a guide for lawyers and policy makers</i>. Oxford University Press. pp. 410-418.</p> <p><b>10.6:</b> Mischel, W., Shoda, Y., &amp; Rodriguez, M.L. (1989). Delay of gratification in children. <i>Science</i>, 244, pp. 933-938.</p> <p><b>10.8:</b> Lerner, J.S., Li, Y., &amp; Weber, E.U. (2013). The financial costs of sadness. <i>Psychological science</i>, 24(1), pp. 72-79.</p> <p><b>10.8:</b> Chabris, C. F., Laibson, D., Morris, C. L., &amp; Schuldt, J. P. (2008). Do Discount Rates Affect Behaviors Like Saving and Smoking? NBER Bulletin on Aging and Health, 1 page only.</p> <p><u>Optional reading:</u> Haushofer, J. &amp; Fehr, E. (2013). The psychology and neurobiology of poverty. <i>Science</i>, forthcoming. (Skim technical details, if desired). (NB: includes section on intertemporal choice)</p> <p><b>10.10:</b> Section, open discussion</p>
7	<p><b>Judgment:</b> heuristics, availability (including vividness), representativeness, anchoring</p>	<p><b>10.13:</b> Columbus Day Holiday, no class</p> <p><b>10.15:</b> Gilovich, T.D. &amp; Griffin, D.W. (2010). “Heuristics.” In the <i>Handbook of social psychology</i>, pp. 548-554.</p> <p><b>10.15:</b> Sunstein, C.R. Fear factor – truth is, sunbathing is probably more dangerous than terrorism. <i>Los Angeles Times</i>. March 10, 2003.</p> <p><b>10.17:</b> Section, open discussion</p>
8	<p><b>Judgment:</b> risk perception, dread risk and unknown risk, psychometric paradigm, forecasting public acceptance</p>	<p><b>10.20:</b> Slovic, P. (1987). The perception of risk. <i>Science</i>, 236, pp. 280-285.</p> <p><b>10.22:</b> Lerner, J.S., &amp; Keltner, D. (2001). Fear, anger, and risk. <i>Journal of Personality and Social Psychology</i>, 81(1), pp. 146-159.</p> <p><b>10.24:</b> Section, open discussion, deadline for slides addressing at least one real-world example/application</p>
9	<p><b>Judgment:</b> risk communication in national security, forecasting, uncertainty, estimative probability</p>	<p><b>10.27:</b> Lerner, J.S., Gonzalez, R.M., Small, D.A., &amp; Fischhoff, B. (2003). Effects of fear and anger on perceived risks of terrorism: A national field experiment. <i>Psychological Science</i>, 14(2), pp. 144-150.</p> <p><b>10.29:</b> Friedman, J.A. &amp; Zeckhauser, R. (2014). Handling and mishandling estimative probability: Likelihood, confidence, and the Search for Bin Laden. <i>Intelligence and National Security</i>, pp. 1-23. (Special guest lecture by author: Professor Jeffrey Friedman, Dartmouth College)</p>

		<b>10.31:</b> Section: open discussion
10	<b>Judgment:</b> judging others, forecasting behavior, social schema effects, stereotyping and causal attribution, self-fulfilling expectancies, behavioral confirmation effect, stereotype threat, the fundamental attribution error, intuitive versus statistical models, Kantian principle on choice.	<p><b>11.3:</b> Brest &amp; Krieger (2009) "The effects of social schemas on social perception and judgment" in <i>Problem solving, decision making, and professional judgment: a guide for lawyers and policy makers</i>. Oxford University Press. pp. 317-330.</p> <p><b>11.5:</b> Dawes, R. (1988). "Proper and improper linear models" in <i>Rational choice in an uncertain world</i>. Orlando, FL: Harcourt Brace Jovanovich pp. 201-222.</p> <p><b>11.5:</b> Lewis, M. "The no stats all star." <i>The New York Times</i>, Feb 15, 2009, pp. 1-18.</p> <p><b>11.7:</b> Section: open discussion</p>
11	<b>Judgment:</b> Common biases: overconfidence, hindsight bias, confirmation bias, positive illusions; normative status of biases.	<p><b>11.10:</b> Lazarsfeld, P. F. (1949). The American soldier-An expository review. <i>The Public Opinion Quarterly</i>, 13(3), pp. 377-380 (remaining pages in article optional, not required).</p> <p><b>11.10:</b> Brest &amp; Krieger (2009) "Overconfidence" in <i>Problem solving, decision making, and professional judgment: a guide for lawyers and policy makers</i>. Oxford University Press. pp. 289-293.</p> <p><b>11.12:</b> Taylor, S.E. &amp; Brown, J.D. (1988). Illusion and well-being: A social psychological perspective on mental health. <i>Psychological Bulletin</i>, 103, pp. 193-210.</p> <p><b>11.12:</b> Colvin, C.R. &amp; Block, J. (1994). Do positive illusions foster mental health? An examination of the Taylor and Brown formulation. <i>Psychological Bulletin</i>, 116(1), pp. 3-20.</p> <p><b>11.14:</b> Section, open discussion, deadline for slides addressing two real-world examples/applications</p>
12	<b>Debiasing judgment &amp; choice:</b> accountability for judgment and choice, social-contingency model, acceptability heuristic, pre-emptive self criticism, defensive bolstering	<p><b>11.17:</b> Tetlock, P. E.. (1983) Accountability and complexity of thought, <i>Journal of Personality and Social Psychology</i>, Vol 45(1), Jul 1983, pp. 74-83</p> <p><b>11.19:</b> Lerner, J.S. &amp; Tetlock, P.E. (1994). Accountability and social cognition. In V.S. Ramachandran (Ed.), <i>Encyclopedia of human behavior</i> (Vol. 1, pp.1-10). San Diego: Academic Press.</p> <p><b>11.21:</b> Section: option to receive feedback on outline of policy memo</p>
13	<b>Exam and holiday break</b>	<b>11.24: In-class exam</b> (covering material from lectures and readings week 1 through week 12)

		<p><b>11.26:</b> Thanksgiving holiday, no lecture</p> <p><b>11.28:</b> Thanksgiving holiday, no section</p>
14	<p><b>Debiasing judgment &amp; choice:</b> integrative lessons for the present-minded professional AKA "Choice Architect"</p>	<p><b>12.1:</b> Bazerman, M. &amp; Moore, D. (2013). "Improving decision making." In <i>Judgment in managerial decision making</i> (8<sup>th</sup> ed.). Hoboken, NJ: John Wiley &amp; Sons, pp. 206-229.</p> <p><b>12.1:</b> Heath, C. &amp; Heath, D. (2013). "Introduction" and "The four villains of decision making" in <i>Decisive: How to make better choices in life and work</i>, pp. 1-31. Crown publishing group</p> <p><b>12.3:</b> Volpp, K.G., Asch, D.A., Galvin, R., &amp; Loewenstein, G. (2011). Redesigning employee health incentives – Lessons from behavioral economics. <i>The New England Journal of Medicine</i>, 365, pp. 388-390.</p> <p><b>12.5:</b> Final section</p>
Finals Period		<p><b>12.8: Policy Memo Due</b> Upload to course website by <b>3:00 PM EST</b>. In fairness to all class members, points will be deducted for each hour thereafter.</p>