Psychology 111: PSYCHOLOGY OF DECISION MAKING

This course will survey modern ideas in decision making, with due attention to the historical origins of this work, its development as a specialty within cognitive psychology, and its impact on our everyday lives. The original interest was in "normative" decision making (how best to?; by "reflection"), arising particularly in games of chance, and economic and military decisions. Later empirical research revealed discrepancies between derived "optimal" strategies, and the actual behavior of us everyday folk making decisions. This approach is termed "descriptive" or "behavioral" decision making (how do we?; by "observation"). Its recent emergence as an aspect of social and cognitive psychology recognizes that people use various tricks that simplify cognitive processing. And although these "heuristics" usually serve us well, they may occasionally become "traps" that lead to poor decisional results for the unwary. An emphasis on understanding these tricks and traps can lead to better decisions both in formal settings (e.g., business, medicine, psychotherapy) and in our everyday lives. This strategy, to attempt to approximate normative ideals by studying and countering "biased" choices that have been discovered behaviorally, has been termed "prescriptive" decision making (how should we?; by "design"). This, we hope, will be a major outcome of this course.

NOTE: The phrase "judgment and decision making" is frequently encountered; it reflects the notions that (1) "judgments" are themselves decisions about our understanding of reality and (2) such judgments are always a part of the context in which "decisions" (selections of courses of action) are made.

Resources: The primary textbook for the course is...


....which is supplemented by....


....and...


The course is organized around a (nearly) successive reading of the of the texts (see Class Schedule and Reading Assignments, p. 2). The subject matter of these chapters can be seen on the Textbook Summaries (pp. 3-4).

Daily plan: You will be expected to have read the material assigned BEFORE the class devoted to that topic. After you’ve read, please think about and write down for each class, on the supplied DECISION LOG, questions raised by the reading, elaboration or clarification you'd like, and relationships to your own decision experiences. Following an open, guided discussion of the material, class time will be spent in activities further exploring the material. Each class will have two strategically timed 10 minute breaks, unless we decide otherwise together.

Student obligations, grades. During the course each student will be expected to attend class, thoughtfully keep up with reading assignments, and contribute to the class discussion with observations and questions. Each student will submit a DECISION LOG daily, will present to the class one chapter from the supplementary texts, and will complete a "take-home final," which includes course- and self-assessment and a course "project" applying what you have learned to the analysis of a major personal life decision. Grades will be based entirely on the record of student participation: attendance, contribution to discussion, active engagement with the material (via LOGS), the presentation, and the "final." See page 5 for details!
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(Hours subject to change or cancellation; will gladly confirm or take appointment -- see us or call.)
<table>
<thead>
<tr>
<th>Class</th>
<th>Date</th>
<th>Class topic</th>
<th>Today's Assignment¹</th>
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<tbody>
<tr>
<td>1</td>
<td>Jul 5</td>
<td>Tu Introduction to course; brief &quot;history&quot; of DM</td>
<td>GET BOOKS</td>
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<tr>
<td>2</td>
<td>Jul 6</td>
<td>W Basics in psychology I: perception and thought</td>
<td>P²; Fwd, Prfc, 1&amp;2</td>
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<td>B³ Intro; SC⁴ Prfc, 1</td>
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<td>3</td>
<td>Jul 7</td>
<td>Th Basics in psychology II: memory and context</td>
<td>P3&amp;4; B1; SC2</td>
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<td>4</td>
<td>Jul 12</td>
<td>Tu Questions and answers</td>
<td>P5&amp;6; B2; SC3</td>
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<td>5</td>
<td>Jul 13</td>
<td>W Classical DM: quest for normative models</td>
<td>P7&amp;8; B3; SC4</td>
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<td>6</td>
<td>Jul 14</td>
<td>Th Modern models: now more descriptive</td>
<td>P9; LR⁵; SC5</td>
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<td>7</td>
<td>Jul 19</td>
<td>Tu Heuristics: representativeness &amp; availability</td>
<td>P10&amp;11; B4a (99125);SC6</td>
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<td>8</td>
<td>Jul 20</td>
<td>W Heuristics: probability and risk &amp; anchoring</td>
<td>P12&amp;13; B4b(125-146);SC7</td>
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<td>9</td>
<td>Jul 21</td>
<td>Th Heuristics: randomness &amp; correlation and causation</td>
<td>P14&amp;15; ---</td>
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<td>10</td>
<td>Jul 26</td>
<td>Tu Heuristics: attribution theory</td>
<td>P16; B5a(147-167); SC8</td>
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<td>11</td>
<td>Jul 27</td>
<td>W Social influences on DM; DM by groups</td>
<td>P17&amp;18; ---</td>
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<td>12</td>
<td>Jul 28</td>
<td>Th Trap: overconfidence</td>
<td>P19, B5b(167-188); SC9</td>
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<td>13</td>
<td>Aug 2</td>
<td>Tu Trap: self-fulfilling prophecy</td>
<td>P20; B6a(189-221); SC10</td>
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<td>14</td>
<td>Aug 3</td>
<td>W Behavioral traps</td>
<td>P21; B6b(221-244); SC11</td>
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<td>15</td>
<td>Aug 4</td>
<td>Th Synthesis &quot;Take-home FINAL&quot; due at class</td>
<td>P; Aftwd; B: Concl</td>
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</table>

¹ All reading assignments are to be completed before this class meeting!!
² Plous (1993), The psychology of judgment and decision making. [Code: P]
³ Gladwell (2005), Blink. [Code: B]
⁴ Hammond et al.(1999), Smart Choices. [Code: SC]
⁵ Langer Reading – short supplemental reading (distributed in prior class) [LR]

GENERAL NOTE: some classes may have brief contemporary readings for your reaction.
TEXTBOOK SUMMARIES:

SECTION I: PERCEPTION, MEMORY, AND CONTEXT
Chapter 1. Selective perception.
Chapter 2. Cognitive dissonance
Chapter 3. Memory and hindsight biases.
Chapter 4. Context dependence.

SECTION II: HOW QUESTIONS AFFECT ANSWERS
Chapter 5. Plasticity.
Chapter 6. Effects of question wording and framing.

SECTION III: MODELS OF DECISION MAKING
Chapter 7. Expected utility theory.
Chapter 8. Paradoxes in rationality.
Chapter 9. Descriptive models of decision making.

SECTION IV: HEURISTICS AND BIASES
Chapter 10. The representativeness heuristic.
Chapter 11. The availability heuristic.
Chapter 12. Probability and risk.
Chapter 13. Anchoring and adjustment.
Chapter 14. The perception of randomness.
Chapter 15. Correlation, causation, and control.
Chapter 16. Attribution theory.

SECTION V: THE SOCIAL SIDE OF JUDGMENT AND DECISION MAKING
Chapter 17. Social influences.
Chapter 18. Group judgments and decisions.

SECTION VI: COMMON TRAPS
Chapter 20. Self-fulfilling prophecies.

AFTERWORD: Taking a step back.


INTRODUCTION: The statue that didn’t look right

Chapter 1. The theory of thin slices: How a little bit of knowledge goes a long way.
Chapter 2. The locked door: The secret life of snap decisions
Chapter 4. Paul van Riper’s big victory: Creating structure for spontaneity.
Chapter 5. Kenna’s Dilemma: The right – and -wrong – way to ask people what they want,
Chapter 6. Seven seconds in the Bronx: The delicate art of mind reading.

CONCLUSION: Listening with your eyes: The lessons of *Blink*. 

**PREFACE**

*Smart Choices...provides a roadmap for good decisions & is clear and easy to understand*

**Chapter 1: MAKING SMART CHOICES**

*How to think about your whole decision problem: a proactive approach*

**Chapter 2: PROBLEM**

*How to define your decision problem to solve the right problem*

**Chapter 3: OBJECTIVES**

*How to clarify what you're really trying to achieve with your decision*

**Chapter 4: ALTERNATIVES**

*How to make smarter choices by creating better alternatives to choose from*

**Chapter 5: CONSEQUENCES**

*How to describe how well each alternative meets your objectives*

**Chapter 6: TRADEOFFS**

*How to make tough compromises when you can’t achieve all your objectives at once*

**Chapter 7: UNCERTAINTY**

*How to think about and act on uncertainties affecting your decision*

**Chapter 8: RISK TOLERANCE**

*How to account for your appetite for risk*

**Chapter 9: LINKED DECISIONS**

*How to plan ahead by effectively coordinating current and future decisions*

**Chapter 10: PSYCHOLOGICAL TRAPS**

*How to avoid some of the tricks your mind can play on you when you’re deciding*

**Chapter 11: THE WISE DECISION MAKER**

*How to make smart choices a way of life*

# Appendix: A Roadmap to Smart Choices (essentially an outline of the book)

# About the Authors

**EIGHT “PROCESS” ERRORS (p.189):**

$ Working on the wrong problem
$ Failing to identify your key objectives
$ Failing to develop a range of good alternatives
$ Overlooking crucial consequences of alternatives
$ Giving inadequate thought to tradeoffs
$ Disregarding uncertainty
$ Failing to account for your risk tolerance
$ Failing to plan ahead when decisions time-linked

**ELEVEN PSYCHOLOGICAL TRAPS (Chap 10):**

$ Overrelying on first thoughts - Anchoring Trap
$ Keeping on keeping on - Status Quo Trap
$ Protecting earlier choices - Sunk Cost Trap
$ Seeing what you want - Confirming-evidence Trap
$ Posing the wrong question - Framing Trap
$ Being too sure of yourself - Overconfidence Trap
$ Focusing on dramatic events - Recallability Trap
$ Neglecting relevant information - Base-rate Trap
$ Slanting probabilities and estimates - Prudence Trap
Seeing patterns where none - Outguessing

Mystical about coincidences - Surprised-by surprises
COURSE ASSIGNMENTS

I. DECISION LOGS (35%)

Beginning tomorrow (7/6), for each reading assignment from the Plous and Gladwell texts, please complete and hand in at class a daily "decision log" on the form provided (see page 6 for details), or a facsimile if you prefer to type or use a word processor. If there are two chapters from Plous, use the back of the form for the three additional Plous items. Generally, after reading the material, the log guides you to reflect on it — to make some judgments about what was most interesting, what questions it raised, what concepts were unclear, and how this material might apply to your own decision making. You will hand these in at the end of each class, and they will be read and returned the next day, with brief comments. PLEASE NOTE: this is not an assignment to "blow off," because it replaces "cramming" for quizzes and exams with what we, and other cognitive psychologists, believe to be a more interesting, rewarding, and lasting way to "process" course material. However, your diligent and thoughtful work on these will also be an important part of the assessment for grading (the lowest grade that is not an “F” will be dropped from grading). HAVE FUN -- THINK OF THINGS TO DISCUSS THAT ESPECIALLY INTEREST YOU!!

II. INTERACTIONS (15%)

Other behaviors contributing to a final assessment will include regular class attendance, participation in class activities (including asking questions and contributing to discussion), and timely completion of assignments. Please note that we do not use a system of grading which demands a certain "distribution" of grades—if you show us that you're working and learning, it's possible for you to earn any grade regardless of what other students get. Because you're not competing with each other, please feel open to cooperate, contribute, and help one another to learn.

III. CLASS PRESENTATIONS (15%)

Beginning next Tuesday (7/12), all chapters in the Gladwell Blink book and most from Smart Choices will be presented by students. It will be expected that ALL of us will have read the chapter(s) and reacted to it before it is presented. As a Presenter you will be expected to summarize briefly the main ideas and illustrate them by examples, including tracking down an outside source referenced in the chapter to fill in details. You will then lead a class discussion, which might include relating the material to ideas from the text, and eliciting and discussing "real-life" applications. Those students presenting on the Gladwell text will do so the day Part b is assigned and will cover the whole chapter. Each presenting person will have a total of 25 minutes, including discussion, and will receive feedback from the rest of the class. By prior arrangement, the presenter may hand in that day’s decision log the following day – let us know.

IV. COURSE PROJECT (major part of "take-home final") (10% Smart Choices Journal + 25% decision analysis paper = 35%)

The objective of the course project is to bring to bear the ideas and skills gained in the course on the analysis of a major decision you faced in the past or expect to in the future. You should choose several possibilities (at least two) NOW and think about them regularly as you progress through the course by making entries in a “Smart Choices journal” after the reading of EACH chapter of the Smart Choices text and applying ideas to your decision problems; ideas from Plous and Gladwell are also welcomed, though not required, in these. Each entry should be dated. We will collect your entries-to-date on the Thursday 7/21 and return them the following Tuesday. It would be best if your journal were looseleaf, because you'll need to make one entry while we still have the prior sheets to review. EACH REVIEW is worth 5%, so these represent 10% of your grade.

The “final” written paper analyzing your chosen decision problem should stand alone, be about 5 typewritten pages long, will be due at the last class, and is worth 25% of your grade. These and the journals will be confidential between us and you. A major criterion in assessing these will be the sophistication of your analysis, in the sense of bringing to bear concepts and frameworks learned in
the course, including proper use of the language and ideas of decision making. The remainder of the “take-home final” entails self-assessment and feedback on the course.
PSYC 111: DECISION LOG  [italics are some suggestions for approaching each item, which are valued in grading]

NAME_________________________  CHAPTERS_________________  DATE

USE THE OTHER SIDE FOR NOTES ON CHAPTERS OR RELATED IDEAS: due at the first class for which chapter was assigned. You’ll get these back at the next class or so and they’ll be a personal record of the course content and your thoughts about it.

THE MOST INTERESTING OR STRIKING IDEA IN THE CHAPTER FROM THE PLOUS TEXT:

Try to explain briefly WHY you selected it --- did it make an association to your life, other courses you’ve had, something you’ve read or seen in the media?

SOME QUESTIONS (2 OR MORE) THE MATERIAL IN PLOUS RAISED (EITHER SOMETHING YOU DIDN’T UNDERSTAND, OR SOME FURTHER POSSIBLE IMPLICATIONS):

Try to develop the questions or issues succinctly for possible exploration together with the class. It might even help to think of it as writing “short-answer” essay questions for an exam (or maybe not!). Consider raising them in class discussion.

RELATE THE PLOUS CHAPTER TO AN EXAMPLE FROM YOUR OWN EXPERIENCE IN MAKING DECISIONS:

This is an “application” question; try to develop your idea at some length and make it interesting and useful to yourself personally. The “decision” discussed does NOT need to be a momentous one, but may be something you do every day and want to re-examine. Another possibility is to think about decisions you made today, and apply idea(s) from the chapter to one of them. Try to have fun with this one!

THE MOST INTERESTING OR STRIKING IDEA FROM THE GLADWELL (BLINK) ASSIGNMENT:

See first item above.

RELATE THE GLADWELL (BLINK) ASSIGNMENT TO AN EXAMPLE FROM YOUR OWN EXPERIENCE:

See third item above.

NOTE: the space allotted for each item on the actual logs is intentionally suggestive of the absolute amount of writing to be done on each. Extra blank “Logs” will be available in class and/or in a folder outside 212A Dewey by the coin copier; a blank log is attached to this syllabus, which may be copied or used if you forget to pick them up.
OTHER RESOURCES "FOR THE RECORD"

• Plous (1993) has an excellent listing of "current" (then) books by topic on pages 262-263.

• The Annual Review of Psychology periodically reviews the field of decision making and some cognate areas; a listing of these follows:
  1961: Behavioral decision theory (Edwards)
  1972: Individual decision behavior (Rapoport & Wallsten)
  1977: Behavioral decision theory (Slovic, Fischhoff, & Lichtenstein)
    Twenty years of experimental gaming (Pruitt & Kimmel)
  1980: Social dilemmas (Dawes)
  1981: Behavioral decision theory: Process of judgment and choice (Einhorn & Hogarth)
  1984: Judgment and decision (Pitz & Sachs)
  1990: Reasoning (Rips)
  1992: Behavioral decision research: A constructive processing perspective (Payne, Bettman, & Johnson)
  1993: Social cognition and social perception (Fiske)
  1994: Psychology and economics: Perspectives on risk, cooperation, and the marketplace (Lopes)
  1996: The motivational impact of temporal focus: Thinking about the future and the past (Karniol & Ross)
  1998: Judgment and decision making (Mellers, Schwartz, & Cooke)
  2001: Decision technology (Edwards & Fasolo)
  2001: Problems for judgment and decision making (Hastie)
  2002: Judgment and decision making: Rationality (Shafir & LeBoeuf)
  2003: Eyewitness testimony (Wells & Olson)
  2004: Social influence: Compliance and conformity (Cialdini & Goldstein)
    Group performance and decision making (Kerr & Tindale)
  2005 Decision Making (Glimcher)
    Groups and teams (Ilgen, Hollenbeck, Johnson, & Jundt)
    Timely Topic: Psychological evidence at the dawn of the law’s scientific age. (Faigman & Monahan)

• Some major journals relevant to judgment and decision making:
  » Journal of Behavioral Decision Making
  » Journal of Risk and Uncertainty
  » Organizational Behavior and Human Decision Processes
  » Acta Psychologica
  » Journal of Personality and Social Psychology
  » Journal of Experimental Social Psychology; J Applied Social Psychology; etc.
  » Journal of Experimental Psychology: (1) General; (2) Human Perception and Performance; (3) Learning, Memory, and Cognition
  » Psychological Science; Current Directions in Psychological Science

• Some additional recent works that are noteworthy:
  » Baron, J. (1994). Thinking and deciding. (2nd ed.). NY: Cambridge University Press. Solid treatment from psychology standpoint; not shy about mathematical arguments, but explains them well.