

Economics 219A  
Fall 2007

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# Foundations of Psychology and Economics

**Meets: Wednesdays 12:00-3:00, 639 Evans**

or, more precisely:

12:12 *sharp* to 2:59, with about 17-minute break shortly before 2:00

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## WHAT IS THIS COURSE, AND CAN/SHOULD YOU TAKE IT?

This course explores ways to formally model the findings of psychological, experimental-economic, and other research demonstrating departures from perfect rationality, self interest, and other classical assumptions of economics. While the point of studying this material is to improve positive and normative economics, this course will focus a little on the behavioral evidence itself and mostly on formal assumptions reflecting this evidence in a way that can be used by economists; it will not focus on the economic applications. Economics 219B, taught in the spring, builds from and complements this course, and places greater emphasis on both economic applications and on empirical methods.

This course is intended for PhD students in the Economics Department and or other departments on campus who already have a solid background in microeconomic theory. This means that you have taken Economics 201A-B or their equivalents. Economics 201A-B is a year-long required Economics PhD sequence in microeconomics, including choice under uncertainty, incentive theory, and game theory. Microeconomic courses in other PhD programs on campus or outside Economics PhD courses are generally *not* likely to be adequate substitutes. **This course is simply not suitable for those unprepared or uninterested in graduate-level economic theory, no matter the intensity of interest in psychology or behavioral economics. Really.**

Admission will be automatic for regular Berkeley PhD or undergraduate students in any department who have passed 201B with a grade of B or better, and is otherwise by my consent. Undergraduates with *advanced* training in microeconomic theory (having taken either Economics 104 or 201A) and who have an interest in Economics graduate studies are also encouraged to consider taking the course. Students from the regular Bonn and Mannheim German exchange program are almost always fully prepared, as well, and because of this and the official status of the exchange program are welcome and encouraged to take the course. Because of space, class-size, and resource limitations, the course is not open for credit (grades or pass-fail) to any other visiting students.

# DETAILED COURSE DESCRIPTION

## MORE ON WHETHER TO TAKE THE COURSE OR NOT

This course focuses on formal modeling. Students will be required on problem sets and exams to solve math problems of the form familiar from 201A-B, at a slightly more demanding level. The course will involve more words and less formality than the typical advanced theory field course. It will, of course, involve far more reading and discussion of the behavioral evidence and psychological foundations of our assumptions than do other theory courses—or any other economics courses. But, in the end, its emphasis is on formal modeling.

Economics 219A can be used as either part of a Psychology and Economics field or part of an Advanced Theory field. For the P&E field, it can in principle be combined with any one of Economics 219B (economic applications), 219D (experimental economics), or 219C (topics), but only 219B is being offered this year. For theory, it is most often used with Economics 206 or 209A, though it can also be combined in principle with 207A, 207B, 209B, or 296. While it will to some extent be oriented to those wishing to go into research in theory, it is probably even more useful for those who seek to apply behaviorally-inspired models for use in empirical work. It is also appropriate for those who wish merely to familiarize themselves with this material. I anticipate that many of those taking the class will not be planning to specialize in either theory or P&E, and I am enthusiastic about that fact.

While in principle the course is open to auditors with appropriate background, I have the unpleasant task of making the following rule: auditors should not take seats unless there are enough seats available for those taking the class for credit.

The topics covered in this course are listed later in the syllabus. Generally I will assign readings covering some of the evidence suggesting that new assumptions would improve economic analysis, discuss this evidence very briefly in class, and then use this evidence to develop new formal models. When available, I will assign papers that contain the formal models. To keep the workload manageable, the number of assigned readings will be minimal, and too little to give a full sense of the relevant evidence; students are encouraged to read further.

If after you have read the syllabus you have any questions about whether this course is appropriate for you, please come talk to me.

## DETAILED COURSE NON-DESCRIPTION

Because it is designed as an introduction to modeling psychological phenomena that are not yet totally integrated into mainstream economic analysis, the material in this course is not entirely like what you've seen in most of your other courses. But it is *not* an alternative to mainstream economics. It is only about improving the psychological realism of formal economic assumptions, so as to use classical economic approaches to improve our answers to classical economic questions. Like all other courses, this course does not cover all topics that might be of interest. So, this course is

## **not about the philosophy or methodology of economics**

Maybe too little time is spent on methodology in graduate school. And some methodological quandaries inhere in the topics of this course. But beyond a brief discussion at the beginning, we will not spend time exploring methodological issues. Doing so takes time away from the substance. And I feel that usually when economists debate “Methodology” in the context of challenging existing assumptions, the debate ends up focusing on an abstract official line about appropriate methodology, rather than a realistic assessment of how workaday economic research is actually done. The maintained hypothesis of the course is that it is sensible for some economists to spend some of their time doing standard economic research that happens to incorporate some untraditional-within-economics elements of human nature that seem to be both true and economically relevant. (We also won’t spend time philosophically fretting about the nature of the terms “rationality” or “self interest”, etc.; we’ll try rather to be clear about the positive or normative content of claims of all particular assumptions.)

## **not about non-psychological models of bounded rationality**

We won’t consider models of bounded rationality (based on computer science, artificial intelligence, etc.) that are meant to capture cognitive limits of economic actors, but not based on evidence that humans think this way. In some arenas (e.g., “unforeseen contingencies”) I think it makes tremendous sense to focus on these alternative models of bounded rationality, and more generally this can be a very useful research agenda. But that’s not what this course is about. We will consider those models based on research focused more narrowly on the empirical evidence of what humans are like.

## **not about savanna economics**

Many people are interested in how the human species evolved to be the way we are, and most economists are most prone to think evolutionary arguments when being exposed to unfamiliar assumptions. Whatever the merits or demerits of an evolutionary perspective on social science, it is not what this course is about. Under the maintained hypothesis that in the (very long) “short run” we can treat the biological aspects of human nature as fixed, we won’t consider the biological dynamics of evolutionary change. We will try to figure out some facts about what humans are like, and see how that matters for the economy. Any empirical insights into how people are—from whatever source, including by researchers who find a focus on evolutionary pressures to be enlightening—is of course welcome. And presumably some researchers believe that the focus on evolutionary pressures will eventually yield high payoff in understanding humans as they currently are, at which point evolution-inspired insights into human nature about economically relevant behavior can be incorporated into a course like this. But this course will not emphasize why being the way we are was adaptive for our ancestors on the savanna.

## **not about experimental economics as such**

Readings will include experimental papers, and as such we will when appropriate examine the nature of the experimental evidence. But the course won’t be about experimental methods per se. I can provide suggestions and references for how to get into experimental stuff if you are interested, and we are lucky to have qualified faculty now on campus to help (such as Shachar Kariv, John Morgan, Teck Ho, and Barb Mellers). But I am not qualified to give detailed guidance, and in any event this course is meant to use the results from experiments to motivate new economic assumptions, and to emphasize the potential for non-experimental research in these topics. We also won’t study experiments testing economic institutions in the laboratory, except insofar as they are either motivated by or informative about the underlying psychology of economic actors.

## ***totally not an alternative to mainstream economics.***

In the most important senses, the course won’t at all be a departure from mainstream economics. I am a devotee of mainstream economic methods: methodological individualism; formal, careful, mathematical articulation of assumptions; logical analysis of what conclusions follow from those assumptions; and thoughtful empirical testing of both the assumptions and the conclusions. This isn’t the only way to approach social science, and it is true that obsessions with methodological individualism and mathematics can sometimes damage research. It is a good thing that these methods and standards are not imposed on all social-science research. Indeed, much of the evidence for the formal models we will be developing doesn’t meet economists’ narrow criteria for good research—and it should humble us that so much useful insight is derived from modes of research we do not employ. But it is my belief that the best way for economists to do economics in general, and the best way for us to use this material in particular, is with careful formal theory and statistical analysis. In these regards, the course will be purposely, pointedly, persistently, proudly, and ponderously mainstream.

# COURSE REQUIREMENTS

## PROBLEM SETS

There will be four substantive problem sets. Each will involve primarily formal problems. Problems will range in difficulty from moderately easy to quite hard. You are encouraged to work together on the basic problems, and very encouraged to come see me for help before they are due. But you are *not* allowed to read others' answers from past or present problem sets, and should only hand in answers that reflect your own understanding. These problems aren't meant to be simple, and don't panic if you struggle with them. But the problem sets will be graded for correctness, so please do seek help answering any problems you are struggling with *before* handing them in.

Please write legibly and clearly, crossing out anything not meant to be part of your answer, and clearly indicating your final answer. Please staple your problem set together—paper clips and folded corners are not a secure means of binding things together. And please remember that problem sets are due at the beginning of lecture on the due date. If you are not attending lecture or will be significantly late to lecture, please make sure I get the problem set prior to lecture. If you unexpectedly miss lecture or are late on the day a problem set is due, please send an e-mail explaining the reasons

There are a very large number of students in this course, and some limits to the amount of time that I and a reader being hired to help grade the problem sets can spend on them. Answers requiring too much ocular, linguistic, or (avoidable) cognitive effort won't be read. This doesn't mean that you need perfect penmanship and cunning concision; just that you make a minimal effort to write/type legibly and present your results clearly and succinctly. Problems will frequently require substantial math; you are welcome and encouraged to hand in all the work you did to reach an answer, but *please* make some effort to provide guidance through your steps of reasoning, and to flag work that will be superfluous to the reader. (Annotating and organizing mathematical arguments is also a good skill to develop for presenting models and results in research papers.)

Planned (but often somewhat altered) schedule of problem sets:

- |                        |  |
|------------------------|--|
| <b>June Cleaver:</b>   | Handed out August 29; due September 19, 12:11 p.m.<br>Answer key distributed September 26; yours returned September 26 |
| <b>Ward Cleaver:</b>   | Handed out September 12; due September 26, 12:11 p.m.<br>Answer key distributed October 3; yours returned October 3.   |
| <b>Wally Cleaver:</b>  | Handed out September 19; due October 17, 12:11 p.m.<br>Answer key distributed October 17; yours returned October 31.   |
| <b>Beaver Cleaver:</b> | Handed out October 17; due November 14, 12:11 p.m.<br>Answer key distributed November 21; yours returned November 28   |
| <b>Eddie Haskell:</b>  | Handed out November 7; due November 28, 12:11 p.m.<br>Answer key distributed November 28; yours returned December 9.   |

## **EXAMS**

There will be two in-class three-hour exams. They are tentatively scheduled for:

Midterm: In Class, October 24

Final Exam: In Class, December 5

The exams will be closed book. They will be based on readings, lectures, and problem sets. They will be designed to be very passable for those doing the reading, seriously engaging the problem sets, and attending lectures. The final will be heavily weighted to the post-midterm material. The exams will mostly reflect the problems from the problem sets. They will also contain not-very-picky and not-many-points questions about the psychological evidence designed to check on whether you've read and understood the reading. I will distribute sample past exams.

## **GRADING**

The course grade will be a weighted sum of the score you get on each of the 5 problem sets that will be graded before the term ends, and on the two exams. The problem sets will each count 10% of your final grade, the midterm 30%, and the final 30%, totaling 110%. The extra 10% will be removed from whichever of the 6 scores is your worst. Except for emergencyish excuses, late problem sets will not be accepted, and you will not be allowed to make up missed exams.

## **RESEARCH**

You should now be beginning the shift away from learning the results of other peoples' research into conducting your own research. A major reason for teaching this material is to positively influence your research. Yet: This course won't focus on research. So: I encourage you to think about research on your own, with each other, and with faculty, including me. It is easy to shortchange this goal under the pressure of taking courses and other duties you have, so it requires some focus on your part to make sure to attend to it. I strongly encourage you to talk to me about ideas for research applying the material from this (or any) course. While I welcome discussions on any of your ideas, including theoretical or experimental research, I most strongly encourage ideas for "field-empirical" research, and especially ideas that do not merely test the validity of some of the principles and models discussed in the course, but are of direct general interest to economics. I enjoy talking to students about their ideas for empirical research.

If you are in the second year of the Economics PhD program, you should be attending at least one or two seminars regularly. This is invaluable for you to start your transformation into a research-focused life. I encourage you to attend the Psych and Econ seminar, Economics 218, Tuesdays 2-3:30 in 608-7 Evans. But I would also very strongly encourage you to attend at least one other seminar in some specific area of economics.

## **HANDOUTS**

I am an anachronism in so many ways. One is my unwebbedness: handouts, lecture notes, etc. will not be posted on the web (nor sent by e-mail). Students will be responsible for knowing what handouts have been distributed and getting these handouts. The primary source of such information should be attending class, of course (and showing up on time when you do so). But you should also contact a fellow student when you miss a lecture (and have him or her collect handouts for you if you know in advance you will miss it). In addition, I will post outside my office after each lecture a list of the handouts so far, and have leftover handouts in an envelope for 1 or 2 weeks after the lecture.

## COMMUNICATING WITH ME

In class and elsewhere, please address me by some variant of my first name. Don't call me Professor Rabin. (If you insist on addressing me formally, please address me as "The Legendary Patsy Cline.")

Subject to announced changes, I plan to have open office hours at the following times (these are also posted on my web page and on my office door):

Friday, August 31, 3.15 to 5.00 (all welcome)  
Tuesday, September 4, 3.45 to 5.30 (all welcome)  
Friday, September 7, 3.15 to 4.30 (all welcome – 219A priority)  
Tuesday, September 11, 4.30 to 5.30 (all welcome – 219A priority)  
Friday, September 14, 3.15 to 4.30 (all welcome – 219A priority)  
Tuesday, September 18, 4.30 to 5.30 (all welcome – 219A priority)  
Friday, September 21, 3.15 to 4.30 (all welcome – 219A priority)  
Tuesday, September 25, 4.30 to 5.30 (all welcome – 219A priority)  
Friday, September 28, 3.15 to 4.30 (all welcome – 219A priority)  
Tuesday, October 2, 4.30 to 5.30 (all welcome – 219A priority)  
Tuesday, October 16, 4.30 to 5.30 (all welcome – 219A priority)  
Thursday, October 18, 2.15 to 3.45 (all welcome – 201A priority)  
Friday, October 19, 3.15 to 5.15 (219A *solely*)  
Tuesday, October 23, 4.30 to 5.30 (219A questions *forbidden*)  
Thursday, October 25, 2.15 to 3.45 (all welcome – 201A priority)  
Friday, October 26, 3.15 to 4.30 (all welcome – 219A priority)  
Tuesday, October 30, 4.30 to 5.30 (all welcome – 219A priority)  
Thursday, November 1, 2.15 to 3.45 (all welcome – 201A priority)  
Friday, November 2, 3.15 to 4.30 (all welcome – 219A priority)  
Tuesday, November 6, 4.30 to 5.30 (all welcome – 219A priority)  
Thursday, November 8, 2.15 to 3.45 (all welcome – 201A priority)  
Friday, November 9, 3.15 to 4.30 (all welcome – 219A priority)  
Tuesday, November 13, 4.30 to 5.30 (all welcome – 219A priority)  
Thursday, November 15, 2.15 to 3.45 (all welcome – 201A priority)  
Friday, November 16, 3.15 to 4.30 (all welcome – 219A priority)  
Tuesday, November 20, 4.30 to 5.30 (all welcome – 219A priority)  
Tuesday, November 27, 4.30 to 5.30 (all welcome – 219A priority)  
Thursday, November 29, 2.15 to 3.45 (all welcome – 201A priority)  
Friday, November 30, 3.15 to 5.15 (219A *solely*)  
Tuesday, December 4, 4.30 to 5.30 (219A questions *forbidden*)  
Thursday, December 6, 2.15 to 3.45 (all welcome – 201A priority)  
Monday, December 17, 2.00 to 5.00 (201A *solely*)

I am teaching two courses the 2<sup>nd</sup> half of the term, and the "priority" listed indicates which topics I will address first if students from both classes happen to show up.

There is no GSI for this course, so I am your GSI. Please use my office hours, including and especially for help on the problem sets. It would be remarkable if you didn't need some assistance with the material, and I am here to help. Also, one of the benefits of open office hours is to accommodate many students at once; if fellow 219A students are in my office, please join in (I'll

say so if for some reason I need to talk privately to a current visitor), and feel very free to show up in groups.

In addition to drop-in office hours, I always have sign-up office hours for advising and other purposes. The sign-up sheets are outside my office. Please **do not** sign up for these slots for course-related help as a general rule. If my scheduled office hours are always infeasible for you, let me know, and then I will encourage you to make appointments with me. But I ask that you schedule your studying so that you are prepared to ask questions during office hours, and do not attempt to schedule extra sessions merely because of poor timing in preparation.

The course is also meant to generate research ideas, which means you should talk to me about research as well. If you wish to talk about research, please freely sign up to do so. More generally, if for some reason you need to talk to me about something for which open office hours aren't appropriate, you should feel free to sign up. Also, for those in the Economics Ph.D. program, I and other faculty are always available to discuss *any* issues regarding the program.

Some gentle requests regarding office hours and on contacting me. First, my office hours end sharply at the end. E.g., don't arrive at 5:25 on Tuesday and expect a full session. Please arrive early if you have lengthy questions, or if you don't want to risk not having time due to others' questions. Also, you are very free to ask me *some* stuff by e-mail, especially to schedule things (e-mail better than phone messages) or if you think there is a typo or something on a problem set or handout. But please be aware that e-mail sucks for answering many types of questions. "How do I do Question 4?" or "What's up with bounded rationality?" are short questions with long answers. Also, please be aware that I typically don't respond at all to any e-mail concerning substantive course material right before exams (though accessible for panic attacks, emergencies, etc.).

Please do come to my office hours. I also like students to come by at least once early in the semester to introduce themselves—no need to have a particular agenda. I try to always have candy. I have toys as well, but you must earn my trust before I let you play with them.

## Tentative Schedule of Lectures

There will be 12 three-hour lectures. The following schedule is tentative (and the actual schedule will typically lag this; the schedule represents the earliest a topic will be covered).

<b>August 29—Lecture 1</b>	Introduction Extending the utility function Reference-dependent preferences
<b>September 5—Lecture 2</b>	Reference-dependent preferences and risk attitudes
<b>September 12—Lecture 3</b>	Risk attitudes completed. Distributional social preferences
<b>September 19—Lecture 4</b>	Belief-based preferences and personal equilibrium Anticipatory utility Reference-dependence redux: expectations as the reference point
<b>September 26—Lecture 5</b>	Self-image and ego utility. Social preferences redux: Self image and reciprocity
<b>October 3—Lecture 6</b>	Rational preferences, utility, and happiness Hedonics and the measurement of happiness Attention, Framing Effects, and Mental Accounting
<b>October 10</b>	<b>NO LECTURE – MATTHEW AWAY</b>
<b>October 17—Lecture 7</b>	Focusing and Bracketing Effects Misprediction of future utility: Principles and evidence
<b>October 24</b>	<b>NO LECTURE – EXAM</b>
<b>October 31—Lecture 8</b>	Misprediction of future utility: Modeling and applications
<b>November 7—Lecture 9</b>	Introduction and principles of present-biased preferences Procrastination and more procrastination
<b>November 14—Lecture 10</b>	Applications of present-biased preferences, part 1
<b>November 21—Lecture 11</b>	Applications of present-biased preferences, part 2 Introduction to heuristics and biases in judgment Quasi-Bayesian models
<b>November 28—Lecture 12</b>	Representativeness-based biases Miscellaneous
<b>December 5</b>	<b>NO LECTURE – EXAM</b>

# Readings

## Required Reading

The required text is Kahneman, Daniel and Tversky, Amos (editors), *Choices, Values, and Frames*, Cambridge University Press, New York, NY, US, 2000. (Referred to as CVF below.) It should be stocked at ASUC bookstore (and may be popular enough to be available elsewhere). The book is a collection of “recent classics” in psychological economics, and a few specially commissioned new writings. *Many* of the required readings in the course are from this book, serving by far as the main source for the psychological foundations (as opposed to formal modeling) topics in the course—both because I have made some effort to choose those chapters for your ease, and (more) because it happens to contain many of the awesomest writings in psychology&economics. I urge you to buy it and read it even if you are just auditing.

Below is a list of the anticipated required reading, in approximate order they will be covered. Any revisions will be announced in class. Even auditors should do as many of the required readings from CVF as possible. (And I highly recommend virtually every chapter in the book, including chapters that I am not assigning.) Ideally I will have separate more-detailed handouts of optional readings for specific topics.

0. Rabin, M. “Syllabus”

1. Thaler, Richard, “Towards A Positive Theory of Consumer Choice,” CVF Chapter 15.
2. Rabin, M. “Psychology and Economics” *Journal of Economic Literature*, March 1998.
3. DellaVigna, Stefano, “Psychology and Economics: Evidence from the Field,” May 2007, <http://www.econ.berkeley.edu/~sdellavi/wp/pefieldavid07-05-10Rev.pdf>
4. Kahneman, D., Knetsch, J. and R. Thaler, “Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias” CVF Chapter 8
5. Tversky, A. and Kahneman, D. “Prospect Theory: An Analysis of Decision under Risk,” CVF Chapter 2
6. Rabin, M. “Diminishing Marginal Utility of Wealth Cannot Explain Risk Aversion,” CVF Chapter 11
7. Kahneman, D., Knetsch, J. and R. Thaler, “Fairness as a Constraint on Profit Seeking: Entitlements in the Market,” CVF Chapter 18
8. Charness, G. and Rabin, M. (2002), “Understanding Social Preferences with Simple Tests,” *Quarterly Journal of Economics*, August,
9. Koszegi B, “Emotional Agency,” *Quarterly Journal of Economics* 121 (1): 121-155 February 2006
10. Koszegi, B and Rabin, M., “A Model of Reference-Dependent Preferences,” *Quarterly Journal of Economics* (2006), 121(4), pp. 1133-1166.
11. Koszegi, B and Rabin, M., “Reference-Dependent Risk Preferences,” *American Economic Review*, forthcoming, September 2007.
12. Kahneman, D. “Experienced Utility and Objective Happiness: A Moment-Based Approach,” CVF Chapter 37
13. Kahneman, D. and Tversky, A. “Rational Choice and the Framing of Decisions, CVF Chapter 12.
14. Thaler, R. “Mental Accounting Matters,” CVF Chapter 14

15. Benartzi, S. and Thaler, R., “Myopic Loss Aversion and the Equity Premium Puzzle,” CVF Chapter 17
16. Camerer, C., Babcock, L., Loewenstein, G. and Thaler, R., “Labor Supply of New York City Cab Drivers: One Day at a Time,” CVF Chapter 20.
17. Kahneman, D., “New Challenges to the Rationality Assumption,” CVF Chapter 42
18. Loewenstein, G., O’Donoghue, T. and Rabin, M. (QJE, 2003) “Projection Bias in Predicting Future Preferences”
19. Frederick, S., Loewenstein, G. and O’Donoghue, T. (2002), “Time discounting and time preference: A critical review,” *Journal of Economic Literature* 40 (2): 351-401, June
20. O’Donoghue, Ted and M. Rabin. “Doing it now or later.” *American Economic Review*, 89(1), 103–124, March 1999.
21. O’Donoghue, T. and M. Rabin (2001). “Choice and Procrastination,” *Quarterly Journal of Economics*, 116, 121-160
23. Kahneman, Daniel and Amos Tversky. “Introduction.” In *Judgment Under Uncertainty: Heuristics and Biases*, Ch. 1, pp. 3–22.
24. Griffin, D. and A. Tversky (1992). “The Weighing of Evidence and the Determinants of Confidence,” *Cognitive Psychology*, 24, 411-435.

### **Suggestions for Other Reading**

Beyond CVF and other specific articles I suggest, I’d also recommend those interested to do some more general psychological reading. For psychological background, just try picking up an undergraduate text in psychology. Three journals you might most want to look at are *Journal of Personality and Social Psychology*, *Cognition*, and *Journal of Behavioral Decision-Making*. You may also want to look at stuff written over the years by economists paying attention to psychology. The best source is Richard Thaler; a couple of his books are listed below, and you can always look at his anomalies columns in the *Journal of Economic Perspective*. Spanning psychology and economics, virtually any of the papers written by Danny Kahneman, Amos Tversky, George Akerlof, George Loewenstein, or Colin Camerer is worth reading.

Here are some of the books most worth looking at:

Kahneman, Daniel and Amos Tversky. CHOICES, VALUES AND FRAMES, New York: Russell Sage Foundation; Cambridge, U.K.; New York: Cambridge University Press, 2000. Awesome collection. Required for the course.

Thaler, Richard H. *The Winner’s Curse: Paradoxes and Anomalies of Economic Life*, Princeton University Press, 1994. Collection of Thaler’s *Anomalies* columns from *Journal of Economic Perspectives*. See also his *Anomalies* columns in the *JEP* since this book was published.

Baron, Jonathan, *Thinking and Deciding*, Cambridge, UK; New York: Cambridge University Press, 1994. A very nice, but basic (non-economists’) introduction to how people think and decide.

Nisbett, R. and Ross, S. *Human inference: strategies and shortcomings of social judgment*, Prentice-Hall, 1980. Probably the best textbook introducing the heuristics-and-biases

program in social judgment.

Cialdini, R. *Influence, the psychology of persuasion*, 1993, Quill. A classic in psychology. Somebody stole my copy of it.

Gilbert, D., Fiske, S. and Lindzey, G. editors, *Handbook of Social Psychology*, 4<sup>th</sup> ed., McGraw Hill, 1998. Excellent overview of the state of the art in social psychology.

Thaler, Richard. *QUASI RATIONAL ECONOMICS*, New York: Russell Sage Foundation, 1991.

Elster, Jon and George Loewenstein. *Choice Over Time*, New York: Russell Sage Foundation, 1992. An excellent collection of writings on intertemporal choice from a variety of perspectives, based on a conference.

Loewenstein, George, Read, Daniel, and Baumeister, Roy (eds.), *Time and Decision: Economic and Psychological Perspectives on Intertemporal Choice*, Russell Sage Foundation, 2003. Another excellent collection in the vein of the Elster and Loewenstein volume listed just above.

Kahneman, Daniel, Paul Slovic, and Amos Tversky, eds., *Judgment under Uncertainty: Heuristics and Biases*, Cambridge University Press, 1982. Arguably the seminal book on behavioral economics. Contains many excellent papers (including virtually all of Kahneman and Tversky's seminal articles on heuristics and biases.)

Kahneman, T. Gilovich, & D. Griffin (eds.), *Intuitive Judgment: Heuristics and Biases*, Cambridge: Cambridge University Press, 2002. An update of Kahneman, Slovic, and Tversky 1982. Looks excellent.

Thaler, Richard (ed.), *Advances in Behavioral Finance*, New York: Russell Sage Foundation, 1993. Excellent collection of behavioral finance papers (if you like that sort of thing).

Shleifer, Andrei. *Clarendon Lectures*, Oxford; New York: Oxford University Press, 2000. Based on a series of lectures, very nice sort of introduction to behavioral finance.

Kagel, John. and Alvin Roth (eds.), *Handbook of Experimental Economics*, Princeton, N.J.: Princeton University Press, c1995. Good overview of findings from experimental economics, in several long chapters.

Camerer, Colin, *Behavioral Game Theory: Experiments in Strategic Interaction*, Russell Sage Foundation and Princeton University Press, 2003. This very recent book is the Bible of laboratory studies of how people play games, from the man who invented and leads the field. Both brilliant and encyclopedic.

Kahneman, D., Diener, E., and Schwarz, N. (eds), *Well-Being: The Foundations of Hedonic Psychology*, Russell Sage Foundation, 1999. A collection of articles of variable topic and quality, but containing some important chapters. I think it is a revolutionary text.

Camerer, Colin, Loewenstein, George, and Rabin, Matthew (eds.), *Advances in Behavioral Economics*, Russell Sage Foundation and Princeton University Press, 2003. A collection of mostly reprinted articles, with an emphasis on more recent research.