

MGMT 758
FOUNDATIONS OF BEHAVIORAL ECONOMICS
Spring 2024
Evans Hall 4230
Fridays 1:00 pm – 4:00 pm

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Course description:

In this class, we explore foundational topics in behavioral economics, and discuss the dominant prescriptive models (which propose what decision makers *should* do) and descriptive models (which aim to describe what decision makers *actually* do). We incorporate perspectives from economics, psychology, philosophy, decision theory, and finance, and engage long-standing debates about rational choice.

Course Materials

Required readings will typically be posted on line and/or handed out in class the week before.

Grading

Final grades will be based on the following:

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|----|--------------------|-----|--|
| 1) | Homework | 30% | 300 points (10 assignments worth up to 30 points each) |
| 2) | Course Development | 20% | 200 points (4 slides, worth up to 50 points each) |
| 3) | Final Exam | 50% | 500 points (cumulative, open notes, in class) |

TOTAL = 100% 1000 points

Weekly Assignments

For most classes, you'll be given one or more (typically three) homework questions. These will *usually* be due the following week in class, *as a hard copy*, which Nick will collect. Partial credit will be given only if your answer is partially correct. Further, you may be penalized if your answer contains the correct answer nestled among other incorrect statements/conclusions. Conversely, you may receive extra credit if your answer goes *above and beyond* what Nick or I consider to be the "standard" correct answer. In other words, if you get a 25/20, that is *not* a typo (and good job!).

You must work alone on the homework (though, in class, many of the practice problems will be done in pairs or small groups).

We beg you to submit these as *printed* (rather than *handwritten*) documents. It makes it MUCH easier for us to grade. If the problem invites a graph, you may draw these, by hand, but please *type* out the text part of your answers.

Course Development slides

Each student is required to submit **four** distinct *Powerpoint* slides that pertain to: (a) concepts or topics covered in class, (b) concepts or topics you think *should* be covered in class, or (c) just something you find interesting that plausibly relates to something that you read for class or to class discussions. These may be drawn from a personal experience, newspaper or magazine articles, books, academic articles and, of course, any research projects with which you are involved.

These will be worth 50 points each. I'll award full credit (50/50) only for slides that are ready to "plug and play"; those that I could insert directly into a presentation without modification. (This standard is rarely met, but is a noble goal.) The *narrative* for each 1 slide "presentation" should be in the notes section, NOT ON THE SLIDE. If you think it is important to temporally stagger the presentation of information (which often *is* a good idea), use animation, not multiple slides.

The deadline for your *first* slide is **Friday, March 8th**. On that day you'll be expected to give a one slide oral presentation in class. Please email it to Nick by midnight on the prior day, to give him time to compile them into a single file so class time is not wasted repeatedly loading files from flashdrives, etc. The due dates for the remaining three slides are all noted below. Note that you are welcome (and, indeed, encouraged) to email Nick or me your slides at *any time prior to* these deadlines. We will likely have critical and constructive feedback.

Though these slides may well enrich future classes, they are primarily intended to give you practice in summarizing and communicating concepts.

I have very *permissive* standards with respect to *relevance* of your four "micro presentations" as this is a very wide ranging course, drawing concepts from a wide range of disciplines. However, I will have very *exacting* standards with respect to succinctness and clarity of communication. Note that I devote an entire class (#6) to help you become better writers and better presenters of data, but will also discuss such issues throughout the course as they come up. Most students give terrible talks and write terrible papers because most professors give terrible talks and write terrible papers, and students wrongly mimic the practices they most commonly observe.

Final Exam

The final exam will be comprehensive and given on the last day of class. It will be “open book” open notes, open everything, *except* electronic devices. So if you take notes on your computer, print them out before the final exam.

Class Participation

Class participation will not be formally graded, nor do I officially “take attendance.” That said, letter grades assigned to point totals may be influenced somewhat by the quality of your contribution to class discussion and by your eschewal of cell use during class. (You *may* use them during the break. **Only**.) Further, while I recognize that “things come up,” there are *only* 12 sessions in total, and, thus, I’d give you an Incomplete if you are absent 3 or more times.

Other

I *discourage* extensive note taking *during class*. Slides will be posted on Canvas, so there is no need to reproduce them. I’d prefer that you spend your time thinking and debating rather than transcribing. Typically, the posted slides will have annotations to help reprise the key concepts or takeaways.

Schedule, Spring 2024
Foundations of Behavioral Economics

Class	Date	Topic	Readings
1	Jan. 26	Introduction Heuristics & Biases Expected Value Expected <i>Utility</i> Risk Preferences	Ellsberg (1954) Frederick (2002) Frederick (2015) Kahneman & Tversky (1979) Weaver & Frederick (2011)
2	Feb. 2		
3	Feb. 9		
4	Feb. 16	Subjective Probability & Bayesian Inference	Ellsberg (1961) Griffin & Tversky (1991)
5	Feb. 23	Decision Analysis	NONE
6	March 1	Scientific Writing & Data Presentation	Limerick (1998) Pinker (2014)
7	March 8 *	Presentations of your first (or best) slide.	TBA
	March 15	SPRING BREAK	
	March 22	SPRING BREAK	
8	March 29 *	Time Preference	Frederick, Loewenstein, & O'Donoghue (2002) Frederick (2006) Read, Frederick, & Airolidi (2012)
9	April 5	Academic (dis)honesty & Replication Crisis	Simmons, Nelson, & Simonsohn (2011), Simonsohn, Nelson, & Simmons (2014), Simonsohn (2015); Meyer et al. (2015) Lakatos (1978), Feynman (1998), Crichton (2003)
10	April 12*	Inequality & Social Justice	Sowell (1999)
11	April 19	Climate Change & Energy Policy	Lindzen (1996; 2015) Legates (2015)
12	April 26	Climate Change & Energy Policy	TBA
13	May 3*	In class Final Exam	All of the above

*= Your [1st, 2nd, 3rd, & 4th] course development slides are due by these dates.

Classes 1-3: Introduction, Expected Value, Expected Utility, Risk Preferences

- Ellsberg, Daniel. (1954). Classic and current notions of "measurable utility." *The Economic Journal*. 64. 528-556.
- Frederick, Shane. (2002) Automated Choice Heuristics. In T. Gilovich, D. Griffin, & D. Kahneman (Eds.), *Heuristics and biases: The psychology of intuitive judgment* (pp. 548–558). Cambridge University Press
- Frederick, Shane. (2015) In defense of (traditional) normative standards. *Journal of Marketing Behavior* 1. 167-174.
- Kahneman, Daniel & Amos Tversky (1979). Prospect theory: An analysis of decision under risk. *Econometrica*. 47. 263-291.
- Weaver, R. & Frederick, S. (2012). A reference price theory of the endowment effect. *Journal of Marketing Research*. 59. 696-707.

Class 4: Subjective Probability & Bayesian Inference

- Ellsberg, Daniel. (1961). Risk, ambiguity and the Savage axioms. *Quarterly Journal of Economics*. 75. 643-69.
- Griffin, Dale & Amos Tversky (1991). The weighing of evidence and the determinants of confidence. *Cognitive Psychology* 24. 411-432.

Class 5: Decision Analysis

NO READINGS

Class 6: Data Presentation & Scientific Writing

- Pullum, G.K. (1989). The great Eskimo vocabulary hoax. *Natural Language & Linguistic Theory*. 7(2). 275-281
- Limerick, P. N. (1998). Dancing with professors: The trouble with academic prose. *Negotiating Academic Literacies: Teaching and Learning Across Languages and Cultures*, 199.
- Pinker, S. (2014). Why academics stink at writing. *The Chronicle of Higher Education*.

Class 7: Class Presentations (of first/best course development slide)

NO READINGS

Class 8: Time Preference

- Frederick, S. (2006). Valuing future life and future lives: A framework for understanding discounting. *Journal of Economic Psychology*. 27. 667-680.
- Frederick, Shane, George Loewenstein & Ted O'Donoghue. (2002). "Time discounting and time preference: A critical review," *Journal of Economic Literature*, 40. 351-401.
- Read, Daniel, Shane Frederick, & Mara Airoidi. (2012). 4 days later in Cincinnati: longitudinal tests of Hyperbolic Discounting. *Acta Psychologica*. 140(2). 177–185.

Class 9: Academic (dis)honesty & the Replication Crisis

- Lakatos, I. (1978). Science and pseudoscience. *Philosophical papers* (1). 1-7.
- Feynman, R. P. (1998). Cargo cult science. *Commencement Address at Caltech*
- Crichton, M. (2003). Aliens cause global warming. *Caltech Michelin lecture*
- Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-positive psychology: undisclosed flexibility in data collection and analysis allows presenting anything as significant. *Psychological Science*. 1359-1366
- Simonsohn, U., Nelson, L. D., & Simmons, J. P. (2014). P-curve: a key to the file-drawer. *Journal of Experimental Psychology: General*, 143(2). 534-547.
- Simonsohn, U. (2015). Small telescopes, detectability and the evaluation of replication results. *Psychological Science*. 26(5). 559-569.
- Meyer, A. et al. (2015). Disfluent fonts don't help people solve math problems. *Journal of Experimental Psychology: General*. 144(2). e16-e30

Class 10: Inequality & Social Justice

- Sowell, T. (1999). *The Quest for Cosmic Justice*. The Free Press. pp. 1-213.

Class 11: Climate Change & Energy Policy I

- Lindzen, R. (1996). Science and Politics: Climate Change & Eugenics (From *Risks, Costs, and Lives Saved*, R.W. Hahn, editor, Oxford University Press, New York.)
- Legates (2015). Climate Science and "Misinformation" *Science & Education*. 24:299–318
- Lindzen, R. (2015). Global Warming and the Irrelevance of Science (lecture)

Class 12: Climate Change & Energy Policy II

Additional readings to be announced.

Class 13: Final Exam (in class)

OTHER RECOMMENDED READINGS

- Ainslie, George (1975). Specious reward: A behavioral theory of impulsiveness and impulsive control. *Psychological Bulletin*, 82, 463-496.
- Alchian, A. (1953). The meaning of utility measurement. *American Economic Review*. 43. 26-50.
- Allais (1953). Le Comportement de l'Homme Rationnel devant le Risque: Critique des Postulats et Axiomes de l'Ecole Americaine. *Econometrica*. 21. 503-546
- Bar-Hillel, Maya. (1990). Back to base rates. In *Insights in Decision Making: A tribute to Hillel J. Einhorn* (pp. 200-216). ed. R. M. Hogarth. University of Chicago Press
- Baron, J. (2000). Can we use human judgments to determine the discount rate? *Risk Analysis*, 20, 861-868.
- Bentham, Jeremy (1948/1789). *The Principles of Morals & Legislation*. New York: Macmillan.
- Benzion, Uri, Amnon Rapoport, & Joseph Yagil. (1989). "Discount rates inferred from decisions: An experimental study." *Management Science*, 35, pp. 270-84.
- Benartzi, Shlomo & Richard H. Thaler. (1995). "Myopic loss aversion & the equity premium puzzle." *Quarterly Journal of Economics*, 110:1, pp. 73-92.
- Bernoulli, D. (1738) "Exposition of a new theory on the measurement of risk", *Comentarii Academiae Scientiarum Imperialis Petropolitanae*, as translated and reprinted in 1954, *Econometrica*, Vol. 22, p.23-36.
- Binmore, K. H. (2007). *Rational decisions*. Princeton: Princeton University Press.
- Broome, J. Utility. (1991). *Economics and Philosophy*. 7. 1-12.
- Broome, John. (1995). "Discounting the future." *Philosophy & Public Affairs*. 20. pp. 128-156.
- Camerer, Colin & Robin M. Hogarth. (1999). "The effects of financial incentives in experiments: A review & capital-labor production framework." *Journal of Risk & Uncertainty*, 19, pp. 7-42.
- Camerer, C., G. Loewenstein and D. Prelec. 2005. Neuroeconomics: how neuroscience can inform economics. *Journal of Economic Literature* 43: 9–64.
- Coller, M., & Williams, M. B. (1999). Eliciting individual discount rates. *Experimental Economics*, 2, 107–127.
- Conlisk, J. (1989). Three variants on the Allais example. *American Economic Review*, 79, 392-407.
- Coombs, C.H. & Avrunin, G.S. (1977). Single-peaked functions & the theory of preference. *Psychological Review*. 84(2). 216-230.
- Cowen, Tyler & Derek Parfit. (1992). Against the social discount rate. in P. Laslett and J.S. Fishkin., ed., *Justice between Age Groups and Generations*. New Haven: Yale University Press. 144-161.
- Cubitt, R., & Read, D. (2007). Can intertemporal choice experiments elicit time preferences for consumption? *Experimental Economics*, 10, 369-389.
- DellaVigna, S. & Malmendier, U. (2006). Paying Not to Go to the Gym. *American Economic Review*. 96(3). 694-719.
- Edwards, W. (1954). The theory of decision making. *Psychological Bulletin*. 51(4). 380-417
- Einhorn, H. J., Hogarth, R. M. (1971) Ambiguity & uncertainty in probabilistic inference. *Psychological Review*, 92(4): 433-461.
- Elster, Jon. (1979). *Ulysses & the Sirens: studies in rationality & irrationality*. Cambridge, Engl&: Cambridge University Press, 1979
- Elster, Jon. (1985). "Weakness of will & the free-rider problem." *Economics & Philosophy*, 1, 231-265.
- Elster, Jon & George Loewenstein. (1992). Utility from memory & anticipation. In G.F. Loewenstein & J. Elster (Eds.), *Choice over Time* (pp. 213-234). New York: Russell Sage.
- Evans, J. S. B. (2003). In two minds: dual-process accounts of reasoning. *Trends in Cognitive Sciences*, 7(10), 454-459.

- Fisher, Irving. (1930). *The Theory of Interest*. New York: MacMillan.
- Fox, Craig & Amos Tversky. (1995). Ambiguity aversion and comparative ignorance. *Quarterly Journal of Economics*. 110. 585-603.
- Frederick, Shane. (2002). Automated Choice Heuristics. In Gilovich, T., Griffin, D., & Kahneman, D. *Heuristics and Biases: The Psychology of Intuitive Judgment*. 548-558.
- Frederick, Shane. (2003a). Time preference and personal identity. In G. Loewenstein, D. Read, and R. Baumeister [eds]. *Time and Decision*. (pp.89-113). New York: Russell Sage Press.
- Frederick, Shane. (2003b). Measuring intergenerational time preference: *Are future lives valued less?* *Journal of Risk and Uncertainty*. 26. 39-53.
- Frederick, Shane. (2005). Cognitive reflection and decision making. *Journal of Economic Perspectives*. 19. 25-42.
- Frederick, Shane & George Loewenstein. (1999). "Hedonic adaptation," in *Well-being: The foundations of hedonic psychology*. Daniel Kahneman & Ed Diener eds. New York, NY: Russell Sage Foundation, pp. 302-29.
- Frederick, S., Novemsky, N., Wang, J., Dhar, R., & Nowlis, S. (2009). Opportunity cost neglect. *Journal of Consumer Research*. 36. 553-561.
- Gardenfors, P. & Sahlin, N.-E. (1982). Unreliable probabilities, risk taking, & decision making, *Synthese*, 53 (1982), 361-386.
- Georgescu-Roegen, N. (1973). Utility & value in economic thought. In P. Weiner (Ed.). *Dictionary of the History of Ideas: Studies of Selected Pivotal Ideas*. New York: Scribners.
- Glimcher, P. (2004). Neuroeconomics: The consilience of brain and decision. *Science*. 306. 447-452.
- Grice, G.R. (1966). Dependence of empirical laws upon the source of experimental variation: *Psychological Bulletin*. 66(6), 488-498.
- Harbaugh, W., Krause, K. & Vesterlund, L. (2009) Prospect theory in choice & pricing tasks. *Working paper*.
- Harless, David W. & Colin F. Camerer. (1994). "The predictive utility of generalized expected utility theories." *Econometrica*, 62. 1251-89.
- Herrnstein, R., Loewenstein, G., Prelec, D. & William Vaughan. (1993). "Utility maximization & melioration: Internalities in individual choice." *Journal of Behavioral Decision Making*, 6:3, pp. 149-85.
- Hinson, J. M., Jameson, T. L., & Whitney, P. (2003). Impulsive decision making & working memory. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 29(2), 298-306.
- Holcomb, J. H. & P. S. Nelson. (1992). "Another experimental look at individual time preference." *Rationality & Society*. 4. 199-220.
- Hsee, Christopher (1999). Value seeking & prediction-decision inconsistency: Why don't people take what they predict they'll like most. *Psychonomic Bulletin & Review*, 6, 555-561.
- Johnson, Eric, Gerald Hauble, & Anat Keinan. (2007). Aspects of Endowment: A Query Theory of Loss Aversion. *Journal of Experimental Psychology-Learning Memory & Cognition* 33. 461-474.
- Kahneman, Daniel. (1994). "New challenges to the rationality assumption." *Journal of Institutional & Theoretical Economics*, 150, pp. 18-36.
- Kahneman, Daniel & Carol Varey. (1991). Notes on the psychology of utility. In John Roemer & Jon Elster (Eds.), *Interpersonal comparisons of well-being* (pp. 127-159). Cambridge: Cambridge University Press.
- Kahneman, D., & Frederick, S. (2005). A model of heuristic judgment. *The Cambridge handbook of thinking and reasoning*, 267-293.
- Kahneman, Daniel, Barbara Fredrickson, Charles Schreiber, & Donald Redelmeier. (1993). When more pain is preferred to less. *Psychological Science*, 4, 401-405.

- Kahneman, D., Wakker, P., & Sarin, R. (1997). Back to Bentham? Explorations of experienced utility. *The Quarterly Journal of Economics*, 112, 375 – 406.
- Kirby, Kris N. & Richard J. Herrnstein. (1995). "Preference reversals due to myopic discounting of delayed reward." *Psychological Science*, 6:2, pp. 83-89.
- Kivetz, R. & Keinan, A. (2006). Repenting hyperopia: An analysis of self-control regrets. *Journal of Consumer Research*, 33, 273-28.
- Laibson, David. (1997). "Golden eggs & hyperbolic discounting." *Quarterly Journal of Economics*, 112, pp. 443-77.
- Leboeuf, Robyn. (2006). Discount rates for time versus dates: The sensitivity of discounting to time interval description, *Journal of Marketing Research*, 63, 59-72.
- Leland, J. W. (2002). Similarity judgments & anomalies in intertemporal choice. *Economic Inquiry*, 40(4) 574-581.
- Loewenstein, George. (1987). Anticipation & the valuation of delayed consumption." *Economic Journal*, 97. 666- 84.
- Loewenstein, George. (1988). "Frames of mind in intertemporal choice." *Management Science*, 34, pp. 200-14.
- Loewenstein, George & Drazen Prelec. (1991). "Negative time preference." *American Economic Review*, 81, pp. 347-52.
- Loewenstein, George & Drazen Prelec. (1992). "Anomalies in intertemporal choice: Evidence & an interpretation." *Quarterly Journal of Economics*, May, pp. 573-97.
- Loewenstein, George, & Drazen Prelec. (1993). Preferences for sequences of outcomes. *Psychological Review*, 100, 91-108.
- Markowitz, H. (1952). The Utility of Wealth. *The Journal of Political Economy*. 60. 151-158.
- Metcalf, J., & Mischel, W. (1999). A hot/cool-system analysis of delay of gratification: Dynamics of willpower. *Psychological Review*, 106, 3–19.
- Mischel, W. 1974. Processes in delay of gratification. In L. Berkowitz (Ed.). *Advances in Experimental Social Psychology*. Volume 7. pp. 249-292. San Diego, CA: Academic Press.
- Mischel, Walter, Joan Grusec, & John C. Masters. (1969). "Effects of expected delay time on the subjective value of rewards & punishments." *Journal of Personality & Social Psychology*, 11:4, pp. 363-73.
- Mischel, Walter, Yuichi Shoda, & Philip K. Peake. (1988). "The nature of adolescent competencies predicted by preschool delay of gratification." *JPSP*, 54:4, pp. 687-96.
- Mochon, D. & Frederick, S. (2013). Anchoring in sequential judgments. *Organizational Behavior and Human Decision Processes*. 122 (1). 69-79.
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- O'Donoghue, Ted & Matthew Rabin. (2001). "Choice & procrastination." *Quarterly Journal of Economics*, 116:1, pp. 121-60.
- O'Donoghue, Ted & Matthew Rabin (2003). Self Awareness & Self Control. In: Roy Baumeister, George Loewenstein & Daniel Read (eds.). *Time & Decision: Economic & Psychological Perspectives on Intertemporal Choice*. New York: Russell Sage. 217-243.
- Olson, Mancur & Martin J. Bailey. (1981). "Positive time preference." *Journal of Political Economy*, 89:1, pp. 1-25.
- Parfit, Derek. (1971). "Personal identity." *The Philosophical Review*, 80:1, pp. 3-27.
- Parfit, Derek. (1982). "Personal identity & rationality." *Synthese*, 53, pp. 227-41.
- Pennycook, G., Fugelsang, J. A., & Koehler, D. J. (2015). What makes us think? A three-stage dual-process model of analytic engagement. *Cognitive psychology*, 80, 34-72.

- Prelec, Dražen. (2004). Decreasing impatience: A criterion for non-stationary time preference & “hyperbolic” discounting. *Scandinavian Journal of Economics*. 106(3). 511-532.
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- Rabin, M. 2000. Risk aversion & expected-utility theory: A calibration theorem. *Econometrica*. 68. 1281-1292.
- Rabin, Matthew & Richard Thaler. (2001). "Anomalies: Risk aversion." *Journal of Economic Perspectives*. 15. 219-32.
- Rachlin, H., Raineri, A. & Cross, D. (1991). Subjective probability & delay. *Journal of the Experimental Analysis of Behavior*. 55. 233-244.
- Read, Daniel. (2001). Is discounting hyperbolic or subadditive? *Journal of Risk & Uncertainty*, 23, 5-32.
- Read, D. (2004). Intertemporal choice. In Koehler, D. & Harvey, N. (Eds.) *Blackwell Handbook of Judgment & Decision Making*. Oxford: Blackwell.
- Read, D. (2006). Which side are you on? The ethics of self-command. *Journal of Economic Psychology*, 27, 681-693.
- Read, D. (2008). Experimental tests of rationality. Anand, P. Pattanaik, P., & Puppe, C. *The handbook of rational & social choice*. Oxford: Oxford University Press.
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- Redelmeier, Donald & Daniel Kahneman. (1996). Patients’ memories of painful medical treatments: Real-time & retrospective evaluations of two minimally invasive procedures. *Pain*, 116, 3-8.
- Robson, A. J. (2001). Why would nature give individuals utility functions? *Journal of Political Economy*. 109. 900 – 914.
- Rogers, Alan. (1994). Evolution of time preference by natural selection. *American Economic Review*. 84. 460–481.
- Rubinstein, A. (2003). “Economics & psychology”? The case of hyperbolic discounting. *International Economic Review*, 44 (4), 1207-1216.
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- Shoda, Y., Mischel, W. & Peake, P.K. 1990. Predicting adolescent cognitive & self-regulatory competencies from preschool delay of gratification: Identifying diagnostic conditions. *Developmental Psychology*. 26(6). 978-986.
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- Simon, H. (1978). Rationality as process and as product of thought. *American Economic Review*. 68. 1-16.

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- Starmer, C, & Sugden, R. (1991). Does the random-lottery incentive system elicit true preferences? An experimental investigation. *American Economic Review*, 81, 971-978.
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- Strotz, R.H. (1956), Myopia & inconsistency in dynamic utility maximization, *Review of Economic Studies*, 23, 165-180.
- Thaler, Richard H. (1981). "Some empirical evidence on dynamic inconsistency." *Economic Letters*, 8, pp. 201-07.
- Thaler, Richard H. & Hersh M. Shefrin. (1981). "An economic theory of self-control." *Journal of Political Economy*, 89:2, pp. 392-410.
- Trope, Yacov & Nira Liberman. (2003). Temporal construal. *Psychological Review*. 110. 403-421.
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- Varey, Carol & Daniel Kahneman. (1992). Experiences extended across time: Evaluation of moments & episodes. *Journal of Behavioral Decision Making*, 5, 169-185.
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