



NEW YORK UNIVERSITY

Cognitive Psychology

G89.2025

When and Where

Term: Fall 2012

When: Mondays (Section 001: 4:20-6:10, Section 002: 6:20-8:10)

Where: MEYR 159

Instructor Information

Name: Professor Scott Barry Kaufman, Ph.D.

Web: <http://www.scottbarrykaufman.com>

Email: scott.barry.kaufman@nyu.edu

Office hours: by appointment

Course Description

Cognitive psychology, the scientific study of the mind, is one of the most exciting and all-compassing areas of psychology. Given that the mind lies behind all of our thoughts, desires, dreams, judgments, emotions and resultant behaviors, having an understanding of the mind will help us to gain a much better understanding of ourselves and those around us. In fact, by the end of this course you'll no doubt be surprised just how important human cognition is in nearly everything you do! Throughout this course we will be examining theoretical and empirical approaches to understanding both lower level and high-order mental processes. Topics will include neuropsychology, modularity, evolution of the mind, perception, attention, mental imagery, infant cognition, language, memory, knowledge and concept formation, reasoning, problem solving, decision-making, human intelligence, artificial intelligence, creativity, social cognition, emotions, morality, love, sex, laughter, humor, religion, and happiness. By the end of the class, you should be up to date on the most cutting-edge research and debates in contemporary cognitive

psychology/science. I look forward to taking you on a tour of the fascinating and perplexing nature of human cognition and its many manifestations!

Course Readings

Cognitive Psychology, 6th edition by Robert J. Sternberg and Karin Sternberg
How The Mind Works by Steven Pinker
Various additional readings assigned along the way

Course Requirements

Attendance/Class Participation: 5%

Quizzes: 50% total, 10% each

Blogs: 20% total, 10% each

Final Paper: 25%

Extra credit: As extra credit opportunities arise, they will be announced in class.

Course Schedule

Lecture 1: Monday, September 10th: Introduction to Cognitive Psychology

- *Sternberg: Chapter 1 (pp. 1-41)*
- *Pinker: pp. 1-27*
- Pylyshyn, Z.W. (1999). What's in your mind? In E. Lepore & Z. Pylyshyn (Eds.), *What is cognitive science?* (pp. 1-25). Oxford. UK: Blackwell.
- Bloom, P. (2004). The Duel Between Body and Soul. *New York Times*. (9/10/04)

(<http://www.nytimes.com/2004/09/10/opinion/10bloom.html?pagewanted=1&r=1>)

Lecture 2: Monday, September 17th: Cognitive Neuroscience

- *Sternberg, Chapter 2 (p. 41-84)*
- *Pinker: 98-131*

Lecture 3: Monday, September 24th: Innateness, Modularity, and Evolution of the Mind

Quiz #1: Chapters 1 & 2

- *Pinker: pp. 27-44, 149-210*

- Bouchard, T.J., Jr., Lykken, D.T., McGue, M., Segal, N., & Tellegen, A. (1990). Sources of human psychological differences: The Minnesota study of twins reared apart. *Science*, 250, 223- 228.
- Gabora, L., & Kaufman, S.B. (2010). Evolutionary approaches to creativity. To appear in R.J. Sternberg & J.C. Kaufman (Eds.), *The Cambridge Handbook of Creativity*. Cambridge, UK: Cambridge University Press.
- Snyder, A. (2009). Explaining and inducing savant skills: privileged access to lower level, less- processed information. *Philosophical Transactions of the Royal Society: B*, 364, 1399-1405.
- *Conversations on Creativity* with Allan Snyder

(<http://www.psychologytoday.com/blog/beautiful-minds/201001/conversations-creativity-allan-snyder>)
- *Conversations on Creativity* with Daniel Tammet

(<http://www.psychologytoday.com/blog/beautiful-minds/201001/conversations-creativity-daniel-tammet>)
- Carston, R. (1996). The architecture of mind: Modularity and modularization. In D. Green et al. (Eds.), *Cognitive science: An introduction* (pp. 53-83). Cambridge, MA: Blackwell.
- Dawkins, R. (1976). *The Selfish Gene*. Oxford, UK: Oxford University Press. Chapter 5.
- Gallistel, C.R. (2000). The replacement of general-purpose learning models with adaptively specialized learning modules. In M. Gazzaniga (Ed.), *The new cognitive neurosciences* (pp. 1179-1191). Cambridge, MA: MIT Press.

*****Submit Blog post #1 by Sunday, September 30th*****

Lecture 4: Monday, October 1st: Perception & Attention

- *Sternberg, Chapters 3 & 4*
- *Pinker: 211-284*
- Simons, D.J., & Chabris, C.F. (1999). Gorillas in our midst: Sustained inattentive blindness for dynamic events. *Perception*, 28, 1059-1074.
- Simons, D.J., & Levin, D.T. (1998). Failure to detect changes to people in a real-world interaction. *Psychonomic Bulletin and Review*, 5, 644-649.
- Dima et al. (2009). Understanding why patients with schizophrenia do not perceive the hollow-mask illusion using dynamic causal modeling. *NeuroImage*, 46, 1180-1186.

- Gregory, R. (1998). Brainy mind. *British Medical Journal*, 317, 1693-1695.

Lecture 5: Monday, October 8th: Memory I, Acquisition, Retention, and Retrieval

*****Quiz #2: Chapters 3 & 4*****

- Sternberg, Chapters 5 & 6

*****October 15th—FALL BREAK*****

Lecture 6: Monday, October 22nd: Memory II, Knowledge & Mental Imagery

- Sternberg, Chapter 7 & 8
- Pinker, pp. 284-298; 306-314
- Medin, D.L. (1989). Concepts and Conceptual Structure. *American Psychologist*, 44, 1469-1481.
- Bedard, J., & Chi, M.T.H. (1992). Expertise. *Current Directions in Psychological Science*, 1, 178-183.
- Ross, P.E. (2006). The expert mind. *Scientific American*, August, 64-71.
- Additional reading TBA

Lecture 7: Monday, October 29th: Language, Part I

*****Quiz #3 on Sternberg, Chapters 5, 6, 7, & 8*****

- Sternberg: Chapters 9 & 10

Lecture 8: Monday, November 5th: Language, Part II

Lecture 9: Monday, November 12th: Problem Solving, Decision Making, & Expertise

*****Quiz #4 on Sternberg, Chapters 9 & 10*****

- Sternberg: Chapters 11 & 12
- Pinker: 333-352
- Bedard, J., & Chi, M.T.H. (1992). Expertise. *Current Directions in Psychological Science*, 1, 135-139.
- Ross, P.E. (2006). The expert mind. *Scientific American*, 295, 64-71.
- Ericsson, K.A., Krampe, R.T., & Tesch-Romer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review*, 100, 363-406.
- Chater, N., Tenenbaum, J., Yuille, A. (2006). Probabilistic models of cognition: Conceptual foundations. *Trends in cognitive sciences*, 10, 287-291.

- Evans, J.S.B.T. (2003). In two minds: dual-process accounts of reasoning. *Trends in cognitive sciences*, 7, 454-459.
- Evans, J.S.B.T. (2008). Dual-processing accounts of reasoning, judgment, and social cognition. *Annual review of psychology*, 59, 255-278.
- Kahneman, D. (2002). Maps of bounded rationality: A perspective on intuitive judgment and choice: Nobel Prize Lecture.
- Uchittelle, L. (2001). Following the money, but also the mind. *New York Times*. (2/11/01) (<http://www.nytimes.com/2001/02/11/business/following-the-money-but-also-the-mind.html>)

Lecture 10: Monday, November 19th: Reasoning, Intelligence, & Creativity

- External Reading: *Human and Artificial Intelligence*, 483-524.
- *Pinker*: pp. 360-362
- Kaufman, J.C., Kaufman, S.B., & Plucker, J.A. (in press). Contemporary theories of intelligence. To appear in *The Oxford Handbook of Cognitive Psychology*.
- Kaufman, S.B., & Sternberg, R.J. (2008). Conceptions of giftedness. In S. Pfeiffer (Ed.), *Handbook of giftedness in children: Psycho-educational theory, research and best practices*. New York, NY: Plenum.
- *Conversations on Creativity* with Joshua Waitzkin

(<http://www.psychologytoday.com/blog/beautiful-minds/200811/conversations-creativity-repeat-bloomer-joshua-waitzkin>)

Lecture 11: Monday, November 26th: Infant Cognition

*****Quiz #5 on Sternberg, Chapters 11 & 12*****

- *Pinker* : pp. 299-306; 314-333; 352-360
- Baillargeon, R. (2004). Infants' physical world. *Current Directions in Psychological Science*, 13, 89- 94.

Lecture 12: Monday, December 3rd: Social Cognition, Emotions, and Morality

- External Reading: *Emotion and Cognition*, pp. 325-365.
- *Pinker*: pp. 363-424
- Haidt, J. (2001). The emotional dog and its rational tail. *Psychological Review*, 108, 814-834.

- Bloom, P. (2010). The moral life of babies. *New York Times*. (5/9/10) (<http://www.nytimes.com/2010/05/09/magazine/09babies-t.html?pagewanted=all>)
- Greene, J., Sommerville, R.B., Nystrom, L., Darley, J., & Cohen, J. (2001). An fMRI investigation of emotional engagement in moral judgment. *Science*, 293, 2105-2108.
- The New Science of Morality, An *Edge* Conference.
(http://www.edge.org/3rd_culture/morality10/morality10_index.html)

*****Submit Blog post #2 by Sunday, December 2nd*****

Lecture 13: Monday, December 10th: The Meanings of Life

- *Pinker: pp. 460-493; 517-567*

*****FINAL PAPERS DUE*****