

Topic	Date	Primary Readings (Required for All Students)	Presenter	Secondary Readings (Required for Presenters, Recommended for All Students)	Focus for Presenter
Introduction & Organization	9/5	Gardner, H. (1985). Psychology: The wedding of methods to substance. In H. Gardner, The Mind's New Science: A history of the cognitive revolution, pp. 89-137. Basic Books, New York.			
Prep Presentations Individual Meetings (no class)	9/12	Reynolds, G. (2008). Presentation Zen. Berkeley: New Riders Press.			
Representations & Mental chronometry	9/19	Tolman, E.C. (1948). Cognitive maps in rats and men. Psychological Review, 55, 189-208.	(j)	a) Chomsky, N. (1959). A Review of B. F. Skinner's Verbal Behavior. Language, 35(1), 26-58.	Why was there a cognitive revolution? Evidence of mental representations and things that are hard to explain without discussing "mental" phenomena.
		Donders, F. C. (1898). On the speed of mental processes. Acta Psychologica 30, 412-431. Sternberg, S. (1966). Memory Scanning: Mental Processes Revealed by Reaction-Time Experiments. American Scientist, 57, 421-457.	(j)	a) McCarthy, G. & Donchin, E. (1981). A metric for thought: a comparison of P300 latency and reaction time. Science, 211(4477), 77-80. b) Commentary: Posner, Michael I. (2005). Timing the Brain: Mental Chronometry as a Tool in Neuroscience. PLoS Biology 3 (2), e51.	Mental chronometry: how do we use behavior to measure information processing?
		Kutas, M., Donchin, E., & McCarthy, G. (1977). Augmenting mental chronometry - P300 as a measure of stimulus evaluation time. Science 197, 792-795.			
Attention & Bottlenecks	9/26	Posner, M.I., Davidson, B.J. & Snyder, C.R.R. (1980). Attention and the detection of signals. Journal of Experimental Psychology: General, 109: 160-174.	(b)	a) Baylis, G. C., & Driver, J. (1993). Visual attention and objects: Evidence for hierarchical coding of location. JEP: HPP, 19(3), 451-470.	Models of attention: Is attention a spotlight or object-oriented? The theories, history, and the evidence.
		Treisman, A. & Gelade, G. (1980) A feature integration theory of attention. Cognitive Psychology, 12, 97-136.		b) O'Craven, K., Downing, P., & Kanwisher, N. (1999). fMRI evidence for objects as the units of attentional selection. Nature, 401(6753), 584-587.	
		Stroop, J. R. (1935). Studies of interference in serial verbal reactions. Journal of Experimental Psychology, 18, 643- 662.	(b)	a) Paschler, H. (1994). Dual-task interference in simple tasks: Data and theory. Psychological Bulletin, 116(2), 220-244. b) Sigman, M.; Dehaene, S. (2008). Brain Mechanisms of Serial and Parallel Processing during Dual-Task Performance. Journal of Neuroscience 28 (30), 7585-7598.	Information processing: What is a bottleneck, how is it measured, and why does it happen (ie give examples of evidence and analysis)?
Objects	10/3	Spelke, E. S. (1990). Principles of object perception. Cognitive Science, 14, 29-56.	(j)	a) Cavanaugh, P. 2011. Visual Cognition. Vision Research, 51, 1538-1551.	Fundamental principles of object representation and evidence.
		Heider, F., & Simmel, M. (1944). An experimental study of apparent behavior. American Journal of Psychology, 57, 243 - 249.	(b)	a) Allison, T; Puce, A; McCarthy, G. (2000). Social perception from visual cues: role of the STS region. Trends in Cognitive Sciences, 4(7), 267-278.	
		Johansson, G. (1973). Visual perception of biological motion and a model for its analysis. Perception & Psychophysics, 14, 201-211.		b) Wheatley, T., Milleville, S. C., & Martin, A. (2007). Understanding animate agents: Distinct roles for the social network and mirror system. Psychological Science, 18, 469-474.	Biological motion: Unique characteristics of animate object processing
Imagery	10/10	Shepard, R., & Metzler, J. (1971). Mental rotation of three dimensional objects. Science, 171(972), 701-3.	(b)	a) Kerr, N.H. (1983). The role of vision in "visual imagery" experiments: evidence from the congenitally blind. Journal of Experimental Psychology: General, 112, 265-77.	What is mental imagery (define the tasks and measures used) and is it truly a "visual" image? Note: Do not discuss the debate (below) over analog vs propositions.
		Kosslyn, S. M., Ball, T. M., and Reiser, B. J. (1978). Visual images preserve metric spatial information: evidence from studies of image scanning. Journal of Experimental Psychology: Human Perception and Performance, 4, 47-60.	(b)	a) Pylyshyn, Z. (1981). The Imagery Debate: Analogue Media versus Tacit Knowledge. Psychological Review, 88(1), 16-45. b) Kosslyn, S.M. (1981). The Medium and the Message in Mental Imagery: A Theory. Psychological Review, 88(1), 46-66.	
Dimensions	10/17	Moyer, R. S., & Landauer, T. K. (1967). Time required for judgments of numerical inequality. Nature, 215, 1519-1520.	(j)	a) Dehaene, S., Bossini, S., & Giraux, P. (1993). The mental representation of parity and number magnitude. Journal of Experimental Psychology: General, 122, 371-396.	Space, time, number, et al: Common signatures and overlap in dimensions in the mind and brain.
		Zorzi M, Piffitts K, Umiltà C (2002) Brain damage: Neglect disrupts the mental number line. Nature 417: 138-139.		b) Holyoak, K.J., & Walker, J.H. (1976). Subjective magnitude information in semantic orderings. Journal of Verbal Learning & Verbal Behavior, 15, 287-299.	
		Gallistel, C. R. (1989). The representation of space, time and number. Annual Review of Psychology, 40, 155-189.	(j)	a) Hermer, L., & Spelke, E. S. (1996). Modularity and development: The case of spatial reorientation. Cognition, 61, 195-232. b) Newcombe, N.S., Ratliff, K.R., Shallicross, W.L. & Twyman, A.D. (2009). Young children's use of features to reorient is more than just associative: Further evidence against a modular view of spatial processing. Developmental Science, 12, 1-8.	Are spatial representations "modular"? The debate and the evidence.
10/24 Midterm Exam: No class, Take-home Essay, 48 hours to complete					
Memory	10/31	Milner, B. (1959). The memory deficit in bilateral hippocampal lesions. Psychiatric Research Reports.	(b)	a) Vargha-Khadem, F., Gadian, D. G., Watkins, K. E., Connelly, A., Van Paesschen, W., & Mishkin, M. (1997). Differential effects of early hippocampal pathology on episodic and semantic memory. Science, 277, 376-380.	Types of Memory: Implicit vs Explicit and Procedural vs Semantic vs Episodic Memory. Describe the evidence for these dissociations. How do we know they are real distinctions?
		Tulving, E. (1985). How Many Memory Systems are there? American Psychologist, 40, 385-398.		b) Howe & Courage. (1993). On resolving the enigma of infantile amnesia. Psychological Bulletin, 113(2), 305-326.	
		Roedigger, H., & McDermott, K. (1995). Creating false memories: Remembering words not presented in lists. Journal of Experimental Psychology: Learning, Memory, & Cognition, 21(4), 803-814.	(j)	a) Roedigger, H.L. (2000). Why retrieval is the key process to understanding human memory. In Tulving (ed) Memory, Consciousness, and the Brain: The Tallium Conference, pp 52-75. Philadelphia: Psychology Press.	Memory errors and illusions: What kind of memory errors do people make and what kinds of errors happen at encoding versus retrieval?
		Loftus, E. F. (1975). Leading questions and eyewitness report. Cognitive Psychology, 7(4), 560-572.		b) Craik, F. & Tulving, E. (1975). Depth of processing and the retention of words in episodic memory. Journal of Experimental Psychology: General, 104, 268-294.	
	11/7	Baddeley, A. (1992). Working memory. Science, 255, 556-559.	(b)	a) Shallice, T., & Warrington, E. K. (1970). Independent functioning of verbal memory stores: A neuropsychological study. Quarterly Journal of Experimental Psychology, 22(2), 261-273. a) Baddeley, A. (2003). Working memory: Looking back and looking forward. Nature Reviews Neuroscience, 4, 829-839.	Working memory: How is it organized? What changes has the theory undergone?
		Collins, A. M., & Loftus, E. F. (1975). A spreading-activation theory of semantic processing. Psychological Review, 82(6), 407-428. Graf, P., Shimamura, A. P., and Squire, L. R. (1985). Priming across modalities and priming across category levels: Extending the domain of preserved function in amnesia. Journal of Experimental Psychology, 11(2), 386-396.	(b)	a) Collins, A. M., & Quillian, M.R. (1969). Retrieval time from semantic memory. Journal of Verbal Learning and Verbal Behavior, 8, 240-247. b) Ratcliff, R. & McKoon, G. (1988). Does activation really spread? Psychological Review, 88(5), 454-462. c) McNamara, T.P. (1994). Priming and theories of memory: A reply to Ratcliff and McKoon. Psychological Review, 101(1), 185-187.	Semantic Memory: How is it organized? Describe features of semantic network models, spreading activation process, and explanations of semantic priming.
		Rosch, E., Mervis, C.B., Gray, W., Johnson, D., & Boyes-Braem, P. (1976). Basic Objects in	(b)	a) Murphy, G.L., & Smith, E. (1982). Basic level superiority in picture categorization. Journal of Verbal Learning and Verbal Behavior, 21, 1-20.	What is a basic level category, how is it made, and what

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Categorization & Concepts	11/14	Natural Categories. Cognitive Psychology, 8(3), 382-439.	(a)	b) Mandler, J. M. (1992). How to build a baby II: Conceptual primitives. Psychological Review, 99(4), 587-604.	is special about it?
		Warrington, E.K., & Shallice, T. (1984). Category specific semantic impairments. Brain, 107, 829-853.	(b)	a) Moscovitch, M., Winocur, G. & Behrmann, M. (1997). What is special about face recognition? Nineteen experiments on a person with visual object agnosia and dyslexia but normal face recognition. Journal of Cognitive Neuroscience, 9, 555-604. b) Caramazza, A., & Shelton, J. R. (1998). Domain specific knowledge systems in the brain: The animate – inanimate distinction. Journal of Cognitive Neuroscience, 10, 1 – 34.	Faces, food, animals, and artifacts: Describe domain-specific vs modality-dependent views of concepts.
11/21 Thanksgiving: No Class					
Insight & Introspection	11/28	Simon, H. A., & Chase, W. G. (1973). Skill in chess. American Scientist, 61: 394-403.	(i)	a) Ericsson, K.A., Lehmann, A.C. (1996). Expert and exceptional performance. Annual Review of Psychology, 47, 273-305.	Conceptual structure affects problem-solving: Examples from functional fixedness and expertise
		Knoblich, G., Ohlson, S., Haider, H., & Rhenius, D. (1999). Constraint relaxation and chunk decomposition in insight problem solving. Journal of Experimental Psychology: Learning, Memory, and Cognition, 25(6), 1534-1555.		b) Dunker, K. (1945). On problem solving. Psychological Monographs, 58(5), 1-113.	
		Brown, R., & McNeill, D. (1966). The "tip of the tongue" phenomenon. Journal of Verbal Learning and Verbal Behavior, 5, 326-337.	(i)	a) Metcalfe, J. & Wiebe, D. (1987). Intuition in insight and noninsight problem solving. Memory & Cognition, 15(3), 238-246.	What is metacognition: evidence that it is a phenomenon of thought, how it is studied, and illusions of knowing.
		Koriat, A. (1993). How do we know that we know? The accessibility model of the feeling of knowing. Psychological Review, 100(4), 609-639.			
Logic	12/5	Wason, P. C., & Shapiro, D. (1971). Natural and contrived experience in a reasoning problem. Quarterly Journal of Experimental Psychology, 23, 63-71.	(i)	a) Cosmides, L. (1989). The logic of social exchange. Cognition, 31, 187-276. b) Kaiser, M., Jonides, J., Alexander, J. (1986). Intuitive reasoning about abstract and familiar physics problems. Memory & Cognition, 14, 308-312.	Logical reasoning: The nature and origins of errors in problem solving (eg., evolution vs familiarity).
		Tversky, A. & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. Science, 185, 1124-1131.	(i)	a) Gigerenzer, G. (1991). How to make cognitive illusions disappear: Beyond heuristics and biases. In W. Stroebe & M. Hewstone (Eds.), European review of social psychology (Vol. 2, pp. 83–115). Chichester, England: Wiley.	Heuristics and biases in decision-making: What biases have been observed, how are they explained, and are they pervasive or circumstantial?
Culture & Cognition	12/12	Heider, E. R., & Olivier, D. C. (1972). The structure of the color space in naming and memory for two languages. Cognitive Psychology, 3(2), 337-354.	(i)	a) Davidoff, J., Davies, I., and Roberson, D. (1999). Colour categories in a Stone-Age tribe. Nature, 398, 203-204.	Does language alter thought? An overview of the Whorfian hypothesis and its current status and a specific example of the evidence in the case for color vision.
		Hunt, E., and Agnoli, F. (1991). The Whorfian hypothesis: A cognitive psychology perspective. Psychological Review, 98(3), 377-389.		b) Whorf, B. L. (1939). The relation of habitual thought and behavior to language. In Language, Thought, and Reality: Selected writing of Benjamin Lee Whorf. Cambridge: MIT Press.	
		Lakoff, G., & Johnson, M. (1980). The metaphorical structure of the human conceptual system. Cognitive Science, 4, 195-208.	(i)	a) Murphy, G. L. (1996). On metaphoric representation. Cognition, 60, 173-204. b) Casasanto, D., Boroditsky, L. (2008). Time in the mind: Using space to think about time. Cognition, 106(2), 579-593.	Conceptual metaphor theory and spatial cognition: Do metaphors drive concept formation?
Final: Take-home Essay, 48 hours to complete					