

PSY D50 H3
Current Topics in Memory & Cognition
Department of Psychology
University of Toronto at Scarborough
Winter 2004

Instructor: Mike Dodd

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Meeting Time and Location: Tuesdays 9:00 a.m.– 11:00 a.m.
Regular Meeting Room: AC332
Note: We will not meet on February 17th (Reading week)

Objective: This course will cover a variety of topics in the domain of human memory and human cognition. Each week we will hold a critical discussion on current theories, data, and/or trends. Students will have the opportunity to discuss and critique current research via weekly discussions, thought papers, presentations, and a major paper

Text: There is no required text for this course. If you are interested in a textbook with a good in depth review of current issues in memory, I'd suggest The Oxford Handbook of Memory (2000). E. Tulving & F. I. M. Craik (Eds.). Oxford, UK: Oxford University Press. Another good background reference is Neath, I. (2003). Human memory: An introduction to research, data, and theory.

Readings: approximately 3-5 current research articles each week (listed below)

Course Web Page:
<http://members.rogers.com/mike-dodd/D50/D50.htm>

Evaluation:

Presentation (20%): Each week, a group of 2-3 students will begin class by briefly presenting a current research article (preselected by me) that is not on the core reading list for the week. This 10-15 minute presentation is simply intended to lead into a discussion of the issues/results/theories presented in the other articles that week. To that end, the presentation group is also responsible for generating a set of 6-8 questions regarding the week's readings to keep the discussion going smoothly.

Thought Papers (30%): Throughout the term you are required to submit a series of thought papers on the articles/issues contained within that week's readings. The papers are to be no more than one page double spaced (about 250-300

words). Your 8 highest scoring thought papers will count towards your final mark. You have the choice, therefore, to either submit a paper a week and have me count your best 8 or to simply submit only 8 papers through the term, all of which will count towards your mark. Try to take a different approach with the papers each week (e.g., don't make every paper a criticism of that weeks research). The thought papers are due at the end of each class.

Major Paper (40%): The major paper can take one of two forms. You can either write an extensive critical review of an area of research or you can write a research proposal that more briefly reviews an area of memory/cognition and presents a new empirical idea. In either case, the paper is expected to be 12-15 pages, not counting title page, references, etc. The paper is due at the beginning of class on March 30th

Attendance/Participation (10%): Given that this course has no exams and is intended as a seminar/discussion group, attendance is critical. It is also important to contribute to the discussion which means you should have the articles read prior to class and come with something to discuss. I will be particularly disappointed if I read a good idea in a thought paper that was not raised during class. That being said, however, the class is large so it is important that no one person dominates the discussion either.

Penalty for Lateness: The research proposal is due at the start of class on March 30th. The penalty for lateness is 5% per day (including weekends). The thought papers are due at the end of each class

Tentative Schedule for Lectures and Reading Assignments

Weeks 2-4: Forgetting/Errors of Memory
 Weeks 5-6: Memory for Self
 Week 8: Repression
 Week 9: Special Topic: Memory for Numbers
 Weeks 10-13: TBD

Date	Topics	Readings	Additional Info
Tues, Jan. 6 th	Organizational meeting		
Tues, Jan. 13 th	Directed Forgetting		Is directed forgetting truly possible?
Tues, Jan. 20 th	Retrieval-induced forgetting/ Inhibition in memory		Is this any different than part-list cuing?
Tues, Jan. 27 th	False Memory: Prevalence & Reduction		Probably the easiest effect to replicate ever!
Tues, Feb. 3 rd	Autobiographical Memory:		Strong eyewitness/false

	what effects it negatively		memory contingent here too
Tues, Feb. 10 th	Flashbulb Memory and Emotion		Is emotion a help or a hinder to memory?
Tues, Feb. 17 th	No Class: Reading Week		
Tues, Feb. 24 th	Repression: an empirical possibility		Is there actual experimental evidence of the concept of repression?
Tues, Mar. 2 nd	Memory/Cognition of Numbers		
Tues, Mar. 9 th	TBD in class		
Tues, Mar. 16 th	TBD in class		
Tues, Mar. 23 rd	TBD in class		
Tues, Mar. 30 th	TBD in class		Major Paper Due at 9 a.m. sharp!!!

I want to make the course enjoyable for you and accommodate each of you accordingly. To that end, I would like your input as to what we'll cover in the second half of the course. Outside of memory, I have a pretty extensive background knowledge in a number of other cognitive domains, particularly attention (e.g., automaticity, negative priming, inhibition of return, etc.). Thus, I would like to tailor the second half of the course to some student interest (we don't just have to discuss memory, though that's an option too) and we'll determine the remaining topics during the first class.

Possible topics for the second half of the course

Cognition:

Automaticity (e.g., word reading, Stroop effect)

Attentional cuing (e.g., inhibition of return, *change blindness*)

Inhibition (e.g., negative priming)

Memory:

Working Memory

Implicit Memory

Prospective Memory

Memory & Aging

Memory Disorders

Neuropsychology (may require a guest speaker)

Developmental Memory (memory in children)

Any other suggestions will be considered.

Articles

Week 2: Directed Forgetting

- Earles, J. L., & Kersten, A. W. (2002). Directed forgetting of actions by younger and older adults. Psychonomic Bulletin & Review, 9, 383-388.
- Korfine, L., & Hooley, J. M. (2000). Directed forgetting of emotional stimuli in borderline personality disorder. Journal of Abnormal Psychology, 109, 214-221.
- *MacLeod, C. M. (1999). The item and list methods of *directed forgetting*: Test differences and the role of demand characteristics. Psychonomic Bulletin & Review, 6, 123-129.
- MacLeod, C. M., & Daniels, K. A. (2000). Direct versus indirect tests of memory: Directed forgetting meets the generation effect. Psychonomic Bulletin & Review, 7, 354-359.
- Sahakyan, L., & Kelley, C. M. (2002). A contextual change account of the directed forgetting Effect. Journal of Experimental Psychology: Learning, Memory, & Cognition, 28, 1064-1072.

Week 3: Retrieval-Induced Forgetting

- Anderson, M. C., Bjork, R. A., & Bjork, E. L. (1994). Remembering can cause forgetting: Retrieval dynamics in long-term memory. Journal of Experimental Psychology: Learning, Memory, & Cognition, 20, 1063-1087. (I've assigned this so you can read the first RIF paper, but it's not important that we discuss it in class)
- Anderson, M. C., Bjork, R. A., & Bjork, E. L. (2000). Retrieval-induced forgetting: Evidence for a recall-specific mechanism. Psychonomic Bulletin & Review, 7, 522-530.
- Bauml, K. (2002). Semantic generation can cause episodic forgetting. Psychological Science, 13, 356-360.
- *MacLeod, M. D., & Macrae, C. N. (2001). Gone but not forgotten: The transient nature of retrieval-induced forgetting. Psychological Science, 12, 148-152.
- Shaw, J. S., Bjork, R. A., & Handal, A. (1995). Retrieval-induced forgetting in an eyewitness memory paradigm. Psychonomic Bulletin & Review, 2, 249-253.

Week 4: False Memory

- Bruce, D., & Winograd, E. (1998). Remembering Deese's 1959 articles: The Zeitgeist, the sociology of science, and false memories. Psychonomic Bulletin & Review, 5, 615-624.
- Dodd, M. D., & MacLeod, C. M. (in press – *available on course website*). False recognition without intentional learning. Psychonomic Bulletin & Review.
- Dodson, C. S., Koutstaal, W., & Schacter, D. L. (2000). Escaping from illusion: reducing false memories. Trends in Cognitive Sciences, 4, 391-397.
- Dodson, C. S., & Schacter, D. L. (2001). "If I had said it I would have remembered it": Reducing false memories with a distinctiveness heuristic. Psychonomic Bulletin & Review, 8, 155-161.
- *Seamon, J. G., Luo, C. R., Shulman, E. P., Toner, S. K., & Caglar, S. (2002). False memories are hard to inhibit: Differential effects of directed forgetting on accurate and false recall in the DRM procedure. Memory, 10, 225-238.

Week 5: Autobiographical Memory

- *Assefi, S., & Garry, M. (2003). Absolut(R) memory distortions: Alcohol placebos influence the misinformation effect. Psychological Science, 14, 77-80.
- Heaps, C. M., & Nash, M. Comparing recollective experience in true and false autobiographical memories. Journal of Experimental Psychology: Learning, Memory, & Cognition, 27, 920-930.
- Mazzoni, G., & Memon, A. (2003). Imagination can create false autobiographical memories. Psychological Science, 14, 186-188.
- Neisser, U., & Libby, L. K. (2000). Remembering life experiences. In E. Tulving & F. I. M. Craik (Eds.). *The Oxford Handbook of Memory*. *Available on course website*
- Thomas, A. K., & Loftus, E. F. (2002). Creating bizarre false memories through imagination. Memory & Cognition, 30, 423-431.

Week 6: Flashbulb Memory and Emotion

- Hornstein, S., Brown, A. S., & Mulligan, N. W. (2003). Long-term flashbulb memory for learning of Princess Diana's death. Memory, 11, 293-306.
- Niedzwinska, A. (2003). Misleading postevent information and flashbulb memories. Memory, 11, 549-558.
- *Schmolck, H., Buffalo, E. A., & Squire, L. R. (2000). Memory distortions develop over time: Recollections of the O.J. Simpson trial verdict after 15 and 32 months. Psychological Science, 11, 39-45.
- Schooler, J. W., & Eich, E. (2000). Memory for emotional events. In E. Tulving & F. I. M. Craik (Eds.). *The Oxford Handbook of Memory*. *Available on course website*
- Tekcan, A. I., & Peynircioglu, Z. F. (2002). Effects of age on flashbulb memories. Psychology & Aging, 17, 416-422.

Week 8: Repression (For this week, everyone must read the article being presented)

- *Anderson, M. C., & Green, C. (2001). Suppressing unwanted memories via executive control. Nature, 410, 366-369.
- Anderson, M. C., & Levy, B. (2002). Repression can and should be studied empirically. Trends In Cognitive Sciences, 6, 502-503.
- Conway, M. A. (2001). Repression revisited. Nature, 410, 319-320.
- Kihlstrom, J. F. (2002). No need for repression. Trends In Cognitive Sciences, 6, 502-503.
- Leavitt, F. (2002). "The reality of repressed memories" revisited and principles of science. Journal of Trauma & Dissociation, 3, 19-35. (*If I can find it and post it to the website*).

Week 9: Memory/Cognition of Numbers

- Dehaene, S. (2003). The neural basis of the Weber-Fechner law: A logarithmic mental number line. Trends in Cognitive Sciences, 7, 145-147.
- Fischer, M. H., Castel, A. C., Dodd, M. D., & Pratt, J. (2003). Perceiving numbers causes spatial shifts of attention. Nature Neuroscience, 6, 555-556.

- *Goldin-Meadow, S., Nusbaum, H., Kelly, S. D., & Wagner, S. (2001). Explaining math: Gesturing lightens the load. *Psychological Science*, *12*, 516-522.
- Grossenbacher, P. G., Lovelace, C. T. (2001). Mechanisms of synesthesia: Cognitive and physiological constraints. *Trends in Cognitive Sciences*, *5*, 36-41.
- Smilek, D., Dixon, M. J., Cudahy, C., Merikle, P. M. (2002). Synesthetic color experiences influence memory. *Psychological Science*, *13*, 548-552.

Week 10: Visual Attention

- *Hommel, B., Pratt, J., Colzato, L., & Godijn, R. (2001). Symbolic control of visual attention. *Psychological Science*, *12*, 360-365.
- Muller, M., M., & Hubner, R. (2002). Can the spotlight of attention be shaped like a doughnut? Evidence from steady-state visual evoked potentials. *Psychological Science*, *13*, 119-124.
- Pratt, J., & Sekuler, A. B. (2001). The effects of occlusion and past experience on the allocation of object-based attention. *Psychonomic Bulletin & Review*, *8*, 721-727.
- Simons, D. J., & Levins, D. T. (1998). Failure to detect changes to people during a real-world interaction. *Psychonomic Bulletin & Review*, *5*, 644-649
- Tipper, S. P., Grison, S., & Kessler, K. (2003). Long-term inhibition of return of attention. *Psychological Science*, *14*, 19-25.

Week 11: Developmental Memory

- Bauer, P. J., Wiebe, S. A., Carver, L. J., Waters, J. M., & Nelson, C. A. (2003). Developments in long-term memory late in the first year of life: Behavioral and electrophysiological indices, *14*, 629-635.
- Brainerd, C. J., & Reyna, V. F. (1996). Mere memory testing creates false memory in children. *Developmental Psychology*, *32*, 467-478
- Harley, K., & Reese, E. (1999). Origins of autobiographical memory. *Developmental Psychology*, *35*, 1338-1348
- Hund, A. M., & Plumert, J. M. (2003). Does information about what things are influence children's memory for where things are? *Developmental Psychology*, *39*, 939-948
- *Lie, E., & Newcombe, N. S. (1999). Elementary school children's explicit and implicit memory for faces of preschool classmates. *Developmental psychology*, *35*, 102-112

Week 12: Aging/Neuroscience/Memory Disorders

- Cabeza, R., Anderson, N. D., Locatore, J. K., & McIntosh, A. R. (2002). Aging gracefully: Compensatory brain activity in high-performing older adults. *NeuroImage*, *17*, 1394-1402
- Cabeza, R. (2001). Cognitive neuroscience of aging: Contributions of functional neuroimaging. *Scandinavian Journal of Psychology*, *42*, 277-286

Hodges, J. R. (2000). Memory in the dementias. In E. Tulving & F. I. M. Craik (Eds.). *The Oxford Handbook of Memory*. Available on course website

*West, R., & Covell, E. (2001). Effects of aging on event-related neural activity related to prospective memory. *NeuroReport*, 12, 2855-2858

Week 13: Hypnosis

Barber, J. (1997). Hypnosis and memory: A hazardous connection. *Journal of Mental Health Counselling*, 19, 305-317

*Clancy, S. A., McNally, R. J., Pitman, R. K., Schacter, D. L., & Lenzenweger, M. F. (2002). Memory distortion in people reporting alien abduction. *Journal of Abnormal Psychology*, 111, 455-461

Raz, A., & Shapiro, T. (2002). Hypnosis and neuroscience: A cross talk between clinical and cognitive research. *Archives of General Psychiatry*, 59, 85-90

Raz, A., Shapiro, T., Fan, J., & Posner, M. I. (2002). Hypnotic suggestion and the modulation of Stroop interference. *Archives of General Psychiatry*, 59, 1155-1161

Scoboria, A., Mazzoni, G., Kirsch, I., & Milling, L. S. (2002). Immediate and persisting effects of misleading questions and hypnosis on memory reports. *Journal of experimental psychology: Applied*, 8, 26-32