University of Waterloo
Department of Psychology
Waterloo, ON N2L 3G1

Psychology 398—Research in Memory
Section 1
Winter, 2006

Time: MW 12:30 – 2:20
Place: PAS 4288
Instructor: Jennifer Stolz, Ph.D.
Office: PAS 4056
Office hrs: MW 3:00-4:00, and by appointment.
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Required Text:
There is no required text for this course.

Teaching Assistant

Name	e-mail	Office	Office Hours
Jonathan Carriere	jcarrier@watarts	PAS 2241	F 10-11

Course Philosophy

General Goals
As a student in this course, your goals should be to increase your knowledge about memory through readings and lectures, and also to begin to develop research skills that will enable you to interpret, criticize and perhaps even conduct research in memory. You should also strive to learn to distinguish good research from sloppy research. This will allow you to distinguish claims about memory (and other things) that are based on sound research techniques and appropriate logic from sloppy work producing misleading claims.

Hands-on Approach
I have tried to structure the course such that each student will get to participate in the execution (and perhaps design) of real experiments. We will work together to analyze the results of these experiments, and students will learn to convey the results of these experiments through brief, written reports. Because writing is a skill vital to your future (as a student or in your chosen career), I will be happy to spend time with each student in order to improve his of her writing (this means ample opportunity to rewrite work). Students will also be encouraged to ask questions, contribute in class, and will also be required to make at least one oral presentation to the class.

Laboratory Work
As I noted above, we will conduct two experiments throughout the course of the term. Data collection will mostl likely take place on Mondays (specified in advance), during class time. Each student will have the chance to test him or herself. For the first project, I will analyze the data in class and provide students with a summary of the results that they can use for their write-ups. For the remaining project, students will get to put their Psych 391 skills to use! (Help is always available, however.)

Computer Stuff
All undergraduate students in the Faculty of Arts may obtain a free computer account on Waterloo Polaris. The account gives students free access to applications such as word processing, statistical and graphics packages, spreadsheets, and electronic mail, as well as the Internet. Students are charged for printing and can put money for printing on to their Arts Computing Resources Account at PAS 1080 using their WATCARD. Instructions for obtaining a Polaris account are available from the Arts Computing Office.

Message from the Faculty of Arts Council
All students registered in the courses of the Faculty of Arts are expected to know what constitutes an academic offense, to avoid committing academic offenses, and to take responsibility for their academic actions. When the commission of an offense is established, disciplinary penalties will be imposed in accord with Policy #71 (Student Academic Discipline). For information on categories of offenses and types of penalties, students are directed to consult the summary of Policy #71 which is supplied in the Undergraduate Calendar (p. 1:10, and on the web at ***http://www.adm.uwaterloo.ca/infoucal/UW/policy_71.html****). If you need help in learning how to avoid offenses such as plagiarism, cheating, and double submission, or if you need clarification of aspects of the discipline policy, ask your course instructor for guidance. Other resources regarding the discipline policy are your academic advisor and the Undergraduate Associate Dean.*

In addition, I would like to direct your attention to the following link to the Arts Faculty Web page, "**How to Avoid Plagiarism and Other Written Offences: A Guide for Students and Instructors**" (**http://watarts.uwaterloo.ca/~sager/plagiarism.html**)

Requirements and Grading

1. Class participation (10% based on quality and quantity): As an instructor, I'm very keen to hear from students. This means that I encourage you to speak up when you have a question or a comment. Although I will be lecturing some of the time, you should never feel that it is only my time to talk.

2. Short summaries/critiques (5% each = 10%) During the term I will assign two journal articles. Each student will be required to read these articles and to write a short (2 page) summary of the article. I will provide a short description of the type of information that one should include in the article summary. After getting feedback on the first version of the paper, each student will have the opportunity to do a re-write to increase their mark (the final mark for each paper will be an average of the two attempts).

3. Laboratory work and write-up (15% each = 30%): As noted above, we will conduct memory-related experiments and students will provide a brief write-up of the lab. The write-up will be quite similar to the Methods, Results and Discussion (but very brief discussion) sections found in a journal article. For the first one, Jonathan and I will guide you through by providing the data analysis and an outline of the project.

4. Class Presentation (20%) Each student will be responsible for giving a presentation based on one of the papers that I have selected for the class. In addition to that paper, each student will find no fewer than 2 additional papers that also addresses that issue, and will incorporate material from those papers into the presentation. This will allow each student some experience with library research techniques. Each student will be asked to email his or her presentation to me no later than 4 pm of the day prior to the presentation. In addition, students are encouraged to see me (or Jonathan) prior to his or her presentation in order to get feedback/guidance. On the days that students give class presentations, we will aim to have 2 presentations per class. Thus, each student should plan to have approximately 45-50 min for his or her presentation. A good way to schedule this is to plan for a 35-40 min presentation, and aim for a 10-15 min discussion section. Remember, however, that although all students are encouraged to participate in the discussion (and will be graded on their contributions), you are ultimately responsible for keeping the discussion going. We will have the presentations on Wednesdays, so that on Mondays I can give the class some background, or some general information, related to the topics of the presentations.

5. Paper (30%): For this project, I would like each student to think about an issue in memory that really interests him or her. Do you have a particular question that you would like answered? Are you curious about how memory operates under certain conditions? What you will do, with guidance from Jonathan and me, is turn your question or idea into a testable hypothesis. That is, you will learn to do a bit of research to determine what work has already been done (if any) on your question. With the results of your literature search in hand, you will devise your own question. From there, we will operationalize your question and create a research design. This project, therefore, will actually be a research proposal. If you find the task of developing your own question to be highly daunting, don't panic. We would be happy to help you with this, as well!

Week of	Topic	Reading
1/4	Overview, Syllabus, Intro	Chpt. 1 from Neath: no student presentation
1/9, 1/11	Sensory/Modal Memory	Vogel et al. (2001). Storage of features conjunctions, and objects in visual working memory. *Journal of Experimental Psychology: Human Perception and Performance, 27*, 92-114.
1/16, 1/18	Working Memory	Kane et al. (2001). A controlled-attention view of working-memory capacity. *Journal of Experimental Psychology: General, 130*, 169-183. Lovatt et al. (2002). Output decay in immediate serial recall: Speech time revisited. *Journal of Memory and Language, 46*, 227-243.
1/23, 1/25	Perspectives on Processing	Hirshman, E. (2004). Ordinal process dissociation and the measurement of automatic and controlled processes. *Psychological Review, 111*, 553-560. Cahill, L., & McGaugh, J. L. (1995). A novel demonstration of enhanced memory associated with emotional arousal. *Consciousness and Cognition, 4*, 410-421.
1/30, 2/1	Forgetting	Marks, W., & Dulaney, C. L. (2001). Encoding processes and attentional inhibition in directed forgetting. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 27*, 1464-1473. Tekcan, A. I., & Aktürk, M. (2001). Are you sure you forgot? Feeling of knowing in directed forgetting. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 27*, 1487-1490.

2/6, 2/8	Implicit Memory	Roediger, H. L. (1990). Implicity memory: Retention without remembering. *American Psychologist, 45*, 1043-1056. Frensch, P. A., & Rünger, D. (2003). Implicit learning. *Current Directions in Psychological Science, 12*, 13-18.
2/13, 2/15	Neuroscience/Amnesia	Habib et al. (2003). Hemispheric asymmetries of memory: the HERA model revisited. *TRENDS in Cognitive Sciences, 7*, 241-245. Kapur, N. (1999). Syndromes of retrograde amnesia: A conceptual and empirical synthesis. *Psychological Bulletin, 125*, 800-825.
2/20, 2/22	**Reading Week**	
2/27, 2/29	Amnesia/other disorders	Corkin et al. (1997). H. M.'s medial temporal lobe lesion: Findings from magnetic resonance imaging. *The Journal of Neuroscience, 17*, 3964-3979. Demandura et al. (2001). Do subgroups of patients with Alzheimer's disease exhibit asymmetric deficits on memory tests? *Journal of Clinical and Experimental Neuropsychology, 23*, 164-171.
3/6, 3/8	Autobiographical Memory	Rubin, D. C. (2005). A basic-systems approach to autobiographical memory. *Current Directions in Psychological Science, 14*, 79-83. Janssen et al. (2005). The reminiscence bump in autobiographical memory: Effects of age, gender, education, and culture. *Memory, 13*, 658-668.

3/13, 3/15	Memory & Reality	Johnson, M. K., & Raye, C. L. (1998). False memories and confabulation. *TRENDS in Cognitive Science, 2*, 137-145. Mazzoni, G. A. L., & Loftus, E. F. (1996). When dreams become reality. *Consciousness and Cognition, 5*, 442-462.
3/20, 3/22	Memory & the Law	Ayers, M. S., & Reder, L. M. (1998). A theoretical review of the misinformation effect: Predictions from an activation-based memory model. *Psychonomic Bulletin & Review, 5*, 1-21. Deffenbacher et al. (2004). A meta-analytic review of the effects of high stress on eyewitness memory. *Law and Human Behavior, 28*, 687-706.
3/27, 3/29	Memory Development	Rovee-Collier, C. (1999). The development of infant memory. *Current Directions in Psychological Science, 8*, 80-85. Cowan et al. (2003). Children's working-memory processes: A response-timing analysis. *Journal of Experimental Psychology: General, 132*, 113-132.
Apr. 3	Mnemonics	Ericsson, K. A. (2003). Exceptional memorizers: Made, not born. *TRENDS in Cognitive Science, 7*, 233-235. Thompson, G., & Foth, D. (2005). Cognitive-training programs for older adults: What are they and can they enhance mental fitness? *Educational Gerontology, 31*, 603-623.