PSY 5014: Psychology of Human Learning and Memory (Spring 2009)

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Course Objectives
A fundamental characteristic of memory is that it in some way repeats or copies something that occurred previously to an organism. However, there is clear variability in the extent to which what is recalled actually matches or echoes what was originally experienced. Further, although this variability is often viewed as a problem, as it may result in errors of memory, such variability, in other contexts, is linked to sought after forms of thinking and expression, with implications for the transfer of learning, creativity, problem-solving, how we classify objects and events, and modes of thinking such as analogy and metaphor. A goal of this course is to understand how we adaptively use memory (episodic, semantic, procedural) in both exact and variable ways. We also will seek to relate behaviorally observed variability in memory to specific brain processes. Prerequisite: PSY 3011 (Introduction to Learning and Behavior) or PSY 3051 (Introduction to Cognitive Psychology), except for honors/graduate students.

Class Meetings
The course meets (unless indicated otherwise on the course outline) on Wednesday, 12:45–3:30 pm, in Elliott Hall N668. It is important to attend each class.

Textbook and Readings
All readings for the course are available electronically through the University Library system. On average, there will be ~50 pages of reading per week. Students are expected to have done the assigned readings before coming to class and, each week, will be asked to prepare specific concepts and issues to discuss in the seminar on the basis of those readings.

Course Requirements
Your course grade will be determined on the basis of four components, take-home exam, presentation, term paper, and active class participation. The take home exam will consist of integrative questions, asking you to make connections within and across the readings. The take home exam must be completed entirely independently: the work must be yours alone.

The term paper and presentation topics will be distributed in the first class meeting. For undergraduate students, the term paper must be approximately 15 typed double-spaced pages; for graduate students it must be 20–25 pages, and must develop and defend a specific research proposal.

The take home exam must be submitted to me by 5 p.m. on the stated date. No extensions are allowed. Early submissions of the term paper (due 12.45 pm, May 6) are encouraged. Late term papers will be penalized half a letter grade for each day they are late. The weekend counts as one day.

Grading:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Take Home Exam</td>
<td>20%</td>
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<tr>
<td>Presentation</td>
<td>20%</td>
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<tr>
<td>Term paper</td>
<td>40%</td>
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<tr>
<td>Class Participation</td>
<td>20%</td>
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A = 85% and up;  B = 75–84%;  C = 65–74%;  D = 55–64%;  F = below 55%
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COURSE OUTLINE

Jan 21 Introductory meeting (no readings)

Jan 28 Exactitude and Variability of Memory: Background and Overview
  • Koriat… Moscovitch…
  Required background reading: • Cipolotti & Bird • Budson & Price • Buckner & Koutstaal • Fuster

Feb 4 Episodic Memory: Associative and Gist-based Processes
  • Schacter… (1998) • Brainerd & Reyna • Koutstaal (2003) • Garoff…

Feb 11 Short-term Memory: Visual Memory and Change Blindness
  • Olsson & Poom • Simons & Ambinder • Triesch… • Beck...
  PRESENTATION: Unconscious transference can be an instance of change blindness, Davis…

Feb 18 Working Memory: Memory and Thinking
  • Jonides… • Saito… • Prabhakaran… • Haarmann…
  PRESENTATION: Comparing thought suppression, distraction, and concentration, Lin…

Feb 25 TAKE HOME EXAM 1 (complete & return by 5.00 pm Fri. Feb. 27)

Mar 4 Remembering Intentions: Cues, Context, and Goals
  • Seifert & Patalano • Ramnani & Owen • Simons… • Marsh…

Mar 11 Autobiographical Memory: Specificity, Generality, Repetition
  • Conway & Pleydell-Pearce • Rubin • Macrae… • Hauer… • Raes…
  PRESENTATION: A case of unusual (superior) autobiographical remembering, Parker…

Mar 18 Spring Break

Mar 25 Source Monitoring and Forms of Recollective Experience
  • Wheeler… • Simons… (2005) • Eldridge… • Davachi…

TERM PAPER PLAN DUE (12.45 pm)

Apr 1 Repetition Priming: Sameness and Difference
  PRESENTATION: rTMS of occipital cortex abolishes Braille reading and priming in blind, Kupers

Apr 8 INDIVIDUAL MEETINGS / DISCUSSION OF TERM PAPER PLANS

Apr 15 Learning to Vary vs. Learning to Repeat (Reinforcing Variability + Procedural Memory)
  • Neuringer • Roberts & Gharib • Terrace… • Jog… • Ungerleider…
  PRESENTATION: Reinforcing spontaneity of sign language use in autism, Carr…

Apr 22 Conceptual Combination and Fluid Concepts: Dynamic Semantic Memory
  • Barsalou… • Wilkenfeld & Ward • Graham… • Morrison…
  PRESENTATION: Relearning of verbal labels in semantic dementia, Snowdon & Neary

Apr 29 Flexible Remembering: Using Categorical and Item-specific Knowledge Revisited
  • Aizpura & Koutstaal (ms) • Day & Gentner • Watkins & Moulds
  • Stöber & Borkovec • Vallacher & Wegner
  PRESENTATION: Divergent thinking and the Alternative Uses Task, Gilhooly…

May 6 Informal 5-10 minute discussion of your term paper topic (and process)
TERM PAPER DUE (12.45 pm)
Grading Standards

The official University grading standards are as follows:
A: Achievement that is outstanding relative to the level necessary to meet course requirements
B: Achievement that is significantly above the level necessary to meet course requirements
C: Achievement that meets the course requirements in every respect.
D: Achievement that is worthy of credit even though it fails to meet fully the course requirements
S: Achievement that is satisfactory, which is equivalent to a C- or better (achievement required for an S is at the discretion of the instructor but may be no lower than a C-).
F (or N): Represents failure (or no credit) and signifies that the work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an I.
I (Incomplete): Assigned at the discretion of the instructor when, due to extraordinary circumstances, e.g., hospitalization, a student is prevented from completing the work of the course on time. Requires a written agreement between instructor and student.

Policy on Scholastic Dishonesty

Academic dishonesty in any portion of the academic work for a course shall be grounds for awarding a grade of F or N for the entire course. The College of Liberal Arts has broadly defined scholastic dishonesty as “any act violating the rights of another student in academic work or involving misrepresentation of your own work. Scholastic dishonesty includes, but is not necessarily limited to, cheating on assignments or examinations; plagiarizing, which is misrepresenting as your own work any part of work done by another; submitting the same work, or substantially similar works, to meet the requirements of more than one course without the approval and consent of all instructors concerned; depriving another student of necessary course materials; or interfering with another student's work.”

Workload

For undergraduate courses, 1 credit is defined as equivalent to an average of 3 hours of learning effort per week (over a full semester) necessary for an average student to achieve an average grade in the course. For example, a student taking a 3 credit course that meets for 3 hours a week should expect to spend an additional six hours a week on coursework outside the classroom.

Miscellaneous

Students are responsible for all information disseminated in class and all course requirements, including deadlines and examinations. A student is not permitted to submit extra work in an attempt to raise his or her grade. Inquiries regarding any change of grade should be directed to the instructor of the course. Make-up examinations will be arranged, if necessary, for legitimate and properly documented absences. Students with disabilities that affect their ability to participate fully in class or to meet all course requirements are encouraged to bring this to the attention of the instructor so that appropriate accommodations can be arranged. University policy prohibits sexual harassment as defined in the December 1998 policy statement, available at the Office of Equal Opportunity and Affirmative Action. Questions or concerns regarding sexual harassment should be directed to this office, located in 419 Morrill Hall.
Class Participation and Concepts Assignments
The topic “concepts” assignments for each class meeting are intended to help you to read the papers and learn and think about some of the relevant concepts, methods, and research findings, not only individually, but as a collaborative “thinking group.”

Your responses to each topic are due no later than noon on the Tuesday before each class (and preferably earlier).

Your class participation grade will be based on a combination of the following factors:

1. your written contribution is an accurate, thorough, and thoughtful treatment of your topic(s),

2. your contribution demonstrates an attempt to actively understand, and individually express your understanding of the topic by, for example, relating it to other concepts in the course or from other courses, using your own examples, providing constructive criticisms, caveats or qualifications, etc.,

3. during the class you do more than simply present your own topic(s): you also ask questions and offer comments, respond to the contributions of others, and demonstrate that you are attempting to integrate concepts and research findings across the readings for each class and across the classes.

Note that although we will not necessarily talk about every assigned reading during class time, you are responsible for reading all of the papers, and should demonstrate that you have read them, and thought critically about them, in your take home exam(s).

Post-Class Overview and Integration Discussion Groups
The final 10-15 minutes of each class will be devoted to post-class overview and integration discussion groups. In these groups (comprised of between 2 to 4 individuals), you will be asked to collaboratively agree upon what you see as the fundamental and broad “take home messages” of the class, and to outline important remaining questions from the readings. Assignment to the groups will be determined pseudo-randomly, changing each week, so that the composition of the groups will vary from class to class. Each group will be asked to provide a written summary that will be reviewed at the beginning of the following class. Summaries will be graded as complete/incomplete for each participant, and will contribute to your class participation grade.

Presentations
On the first day of class, you will be asked to choose a class presentation topic from the options provided on the course outline. These presentations will be given by small groups of two to four students. The presentation should provide an organized, coherent, and clear overview of the assigned article that can be readily understood by people who have not read the original paper, and should explicitly link the paper to other conceptual issues discussed in the class. Your presentation is to be given on the stated date, and will be graded. Any failures to present on the stated date will be assigned a failing grade unless an acceptable excuse such as serious illness (documented by a doctor’s note) is provided. Each presentation should be 15 minutes long, with an additional 5 minutes provided for questions and discussion.
**Take Home Exam(s)**
We will *not* have a class meeting on the week(s) for which a take home exam is scheduled. The questions for the take home exam(s) will be sent to you, by e-mail, by 10.00 a.m. on the day of the scheduled midterm. Should your e-mail or computer fail it is your responsibility to obtain the questions from the Psychology Department office (Elliott Hall N218).

It is my policy to grade the take home exams anonymously. To allow this, your take home exams must be submitted in *paper format*, into the envelope on my office door (Elliott Hall S247) and *should not include your name* – only include the paper identifier number that you will choose in the class before the take home exam.

**Term Paper**
It is very important that you begin to research, and carefully think about, your term paper early in the term.

To help you do this, you must *submit a one page written statement of your chosen term paper topic, together with at least 5 relevant references that are not on class reading list, in class on or before Wednesday March 25 (the week after Spring break).*

This submission will be *graded* and is worth *15% of your final term paper grade.*