Summer 2013
Discipline: Psychology
PSYC 4559: Memory: Forgotten, Illusory and True
Upper Division
Faculty Name: Chad Dodson

Pre-requisites: None

COURSE DESCRIPTION

Although memory is generally accurate, some illusions and distortions in remembering are unavoidable. The consequences of these memory problems range from relatively benign tip-of-the-tongue experiences to untrustworthy eyewitness testimony. This class will review a variety of different memory distortions with the goal of advancing our understanding of memory.

The framework for the seminar is based on a book by Schacter (2001) that argues that memory problems can be classified into seven basic “sins”: transience, absent-mindedness, blocking, misattribution, suggestibility, bias, and persistence. As Schacter notes, the first three sins reflect different types of forgetting. Transience involves decreasing accessibility of information over time; absent-mindedness entails inattentive or shallow processing that contributes to weak memories of ongoing events or forgetting to do things in the future; and blocking refers to the temporary inaccessibility of information that is stored in memory. The next three sins all involve distortion or inaccuracy. Misattribution involves attributing a memory to the wrong source; suggestibility refers to memories that are implanted at the time of retrieval; and bias involves retrospective distortions and unconscious influences that are related to current knowledge and beliefs. Finally, persistence refers to pathological remembrances: information or events that people cannot forget, even though they wish that they could.

We will examine research that bears on these seven types of memory errors. We also will consider the possibility that they can be conceptualized as byproducts of adaptive features of memory, rather than flaws in the system or blunders made by Mother Nature during evolution.

COURSE OBJECTIVES

1. Describe the different kinds of memory errors.
2. Understand the basic memory mechanisms that cause these memory errors.
3. Evaluate whether these memory errors are adaptive and necessary features of our memory system or whether these errors are glitches.
STRUCTURE

This course will be run as a seminar and as such will consist of group discussion of assigned readings and student presentations.

FIELD WORK (At least 20 percent of the contact hours for each course, to be led by the instructor.)

Students will select two of the following field-work options. However, one of the options below will be a field-trip that I will lead and it will be mandatory for everyone to attend this trip.

(1) Exploring Damnatio Memoriae in Barcelona. Damnatio Memoriae refers to a society’s attempt to obliterate traces and thus memory of an individual (or event) by removing all signs of their existence. For example, as a consequence of the Spanish Civil War and the Franco regime, Spain illustrates in many places the attempt to forget the past. We will examine these efforts in Barcelona. Students will be required to write a 2-3 page paper reflecting on the similarities and dissimilarities between forgetting processes in the individual and instances of Damnatio Memoriae on the part of institutions and society.

(2) The Memory Palace in Rome: In order to memorize their speeches, ancient Roman orators often used a mnemonic strategy now known as the method-of-loci but also referred to as the “memory palace.” We will explore the use of this technique in this field trip of Rome. Students will write a 2-3 page reflection paper.

(3) Independent Practica: Conditional on prior approval from me, the student can craft their own field trip that explores issues related to memory. As with the prior assignments, students will write a 2-3 page paper relating their field trip to some of the memory issues that we have covered in this course.

EVALUATION

- 10% for class attendance and participation. Students are required to attend all classes and to participate in the discussion.

- 10% for observation. By the night before class (exact time TBD), students will post an observation about the assigned reading to the class on the class discussion board on the class website. This comment is open-ended and can consist of a question and/or a statement about a particular reading. Alternatively, the observation can tie the readings together from a particular week or across weeks. See the following questions below for guidance. Or, the email may be a reaction to someone else’s comment. Ideally, the comment will be thought provoking and will serve as a springboard for discussion.
20% for presentation. Everyone will lead the discussion of the reading. This will not be a lecture summarizing the reading. Instead, the students will initiate and guide the discussion through the key parts of the reading (e.g., motivation, results, and implications). When appropriate the students may wish to demonstrate an experimental procedure from the reading. In addition, it may be useful for the leaders to provide background information about how the week’s topic fits in with more global memory issues. The leaders should meet with me on the previous Monday.

20% for field assignment papers.

40% for two exams. The first exam will be during Class #12 and will cover all of the material up to that point. The second exam will be on the last class and is based on the material since the prior exam.

Late policy: The grade of late papers is reduced by 1/3 (e.g, from A to A-, B+ to B, etc.) for each day past the due date. Late exams will not be accepted.

**ELECTRONIC COURSE MATERIALS**
All course material can be found in the class’s electronic course folder.

**HONOR CODE**
Semester at Sea students enroll in an academic program administered by the University of Virginia, and thus bind themselves to the University’s honor code. The code prohibits all acts of lying, cheating, and stealing. Please consult the Voyager’s Handbook for further explanation of what constitutes an honor offense.

Each written assignment for this course must be pledged by the student as follows: “On my honor as a student, I pledge that I have neither given nor received aid on this assignment.” The pledge must be signed, or, in the case of an electronic file, signed “[signed].”

**Tip for reading the material**
The following questions may prove useful when reading the articles, making an observation, and writing the paper:

a) What is the precise question asked in the article? Why is this interesting? What theoretical issues hinge on it?

b) What is the logic of the experiment? What is compared to what, and exactly how and why does any difference between these conditions or lack thereof answer the questions posed in (a). Don’t focus on the trivial experimental details. Rather, emphasize the main idea behind the paper. For instance, the task performed by the subject is likely to be important, whereas the exact nature of the stimuli likely is not.

c) What were the main findings? How did they answer the question posed?

d) What are the broad implications of the results?
e) What do you think about the paper? Does the design make sense or do you see flaws and, if so what are they? How would you have done the experiment better? What further experiments would you want to try next based on the results reported in this paper?
COURSE SCHEDULE

Day 1: Introduction

Day 2: Transience: Changes in memory across time


Day 3: Transience: Changes in memory across time


Day 4: Absent-mindedness


Day 5: Absent-mindedness

Ophir et al. (2009). Cognitive control in media multitaskers. Proceedings of the National Academy of Sciences, 106, 15583-15587. **Read the methods section at the back of the paper before you begin to read the paper**


Day 6: Prospective Memory: Remembering to do something


Day 7: Prospective Memory: Remembering to do something


Day 8: Blocking I –Can remembering cause forgetting?


Day 9: Blocking II –Can we deliberately forget something?


Day 10: Blocking III – Can we deliberately forget something?


Day 11: Repressed Memories: Possible or Impossible?


Day 12: Midterm Exam

Day 13: Tip of the Tongue Experiences


Day 14: Tip of the Tongue Experiences


Day 15: Illusory Memories


Lindsay et al. (2004). True photographs and false memories. Psychological Science, 15, 149–154


Day 16: Biases in the system

Kahneman et al. (1993). When more pain is preferred to less: Adding a better end. Psychological Science, 4, 401 – 405.


Day 17: Mnemonic Strategies: Do they work?

Day 18: Implications of forgetting and Do those who know more also know more about how much they know?


Day 19: Eyewitness Identification

Ackerman et al. (2006). They all look the same to me (unless they’re angry). *Psychological Science, 17*, 836 – 840.


Day 20: When are false confessions likely?


Day 21: What happens to memory as we age?


Day 22: What happens to memory as we age?


Day 23: Cognitive Neuroscience of Constructive memory


Hassabis et al. (2007). Patients with hippocampal amnesia cannot imagine new experiences. PNAS


Day 24: Final Exam