

Spring, 1996 D. Hintzman

Psychology 433/533 Learning & Memory

Office Hours: 307 Straub, M 2-3:30; T 10-11:30

Text: James T. Walker (1996) The Psychology of Learning. Prentice Hall

Tentative Schedule:

Week of	Readings	Exams, Papers etc.
April 1	Ch. 1	
April 8	Ch. 2	
April 15	Ch. 3 (except 61-72)	
April 22	Ch. 4	
April 29	Ch. 5	Exam #1 , Monday April 22 (Ch 1-4)
May 6	Ch. 7 (exc. 197-209)	
May 13	Ch. 8	
May 20	Ch. 9	Exam #2 , Monday, May 20 (Ch 5,7,8)
May 27	Ch. 11 (exc. 308-316)	(No class Monday)
June 3	Ch. 6 (exc. 158-164) ..	Term Paper due Monday, June 3
June 10		Final Exam , 10:15 Monday (comprehensive)

Learning and memory have always been considered to be among the most basic topics in psychology. For this reason, these processes have been the subject of a great deal of experimental and theoretical work, reported in thousands of articles extending back for more than a century. Because humans share many learning abilities with other animals, much of the most important research in the field has been done on non-human animals. Processes that depend on verbal abilities, of course, can be studied only in humans. Accordingly, about half the research we cover in this course was done on animals and about half was done on humans.

The purpose of this course is to provide an overview of the most influential theories and findings in this important and extensive area of research. To get the most out of the textbook (and out of the lectures), will you need to think analytically about theories and how they relate to experimental designs and experimental outcomes. This kind of reading requires both effort and time, so you should plan your study schedule accordingly.

Exams: There will be two mid-terms and a final exam--each a combination of essay and multiple-choice. The midterms will be worth 50 points each, and the final, which will be comprehensive, will be worth 70 points. The exams will cover material from the lectures, as well as the indicated readings.

Paper: The term paper, due on June 3, will be worth 30 points.. Get it in on time! Late papers will be docked 4 points per week-day that they are late. The term-paper assignment can be found on the back of this page.

Grading: Grading will be based on the summed points from the exams and the papers (200 points possible). You must earn at least 100 points to get a grade of C-.

Paper Assignment--Psychology 433/533

For the term paper, due June 3, you are to design an experiment that demonstrates the classical conditioning of a positive emotional response in adult humans. It is widely believed that certain forms of advertising manipulate people's attitudes toward products in this way (however, an advertising scenario might not be the best way to set up the experiment). Your experimental design should be sufficient to demonstrate both **conditioning and extinction** of the emotional response. (For information on classical conditioning, see chapter 3 of Walker.)

Your assignment is only to design the experiment, not to run it. In designing an experiment, you need to be fairly concrete about the essential details of how it will be conducted. For example, you will need to identify at least one neutral stimulus (a CS), a stimulus that elicits a positive emotional response (a UCS), and a way to pair them. You will also need a way to measure the subjects' emotional response. In addition, you will have to think carefully about the control conditions necessary to rule out pseudoconditioning and other undesirable factors as an explanation of your results. And of course the experiment will have to have both a conditioning phase and an extinction phase. Also, please design an experiment that could actually be carried out--i.e., in a reasonable amount of time, and without violating ethical rules.

It should be possible to satisfy this requirement in under 10 pages. Grading will depend on the overall logic of your paper, although creativity can gain a few extra points. As always, poor writing will entail a penalty. It is a good idea to have someone else read and comment on the paper before you produce the final draft.

For the paper itself, no abstract, references or review of the literature are required. However, your paper should contain three sections:

- (1) An **introduction**, spelling out the hypothesis to be tested (in this case, the demonstration of an experimental phenomenon). The introduction should include a brief overview of the experiment, so that it is clear to the reader how the experimental design relates to your hypothesis.
- (2) A **method** section, describing the design of the experiment. It should include a concise account of the manipulations that define each condition, so that the reader can understand the sequence of events that will be experienced by a subject. This section should be very clear about the independent and dependent variables, the number of conditions, and the specific steps to be taken to control for extraneous factors. A good method section is one that would allow the reader to reconstruct or replicate the experiment, in all its essential details. The method section is a crucial part of any experimental paper, and should be written with care.
- (3) **Anticipated results**. This section should clearly describe different possible outcomes, and indicate what implications each would have regarding the experimental hypothesis. That is, what result would clearly demonstrate the phenomena of interest? What other results might be obtained, and what would they mean? (What would the results look like, for example, if the experiment produced pseudoconditioning but no real conditioning?) Graphs of idealized results are often a good way to depict different possible experimental outcomes--but you still need to explain things in words.

Psychology 533 students: Your paper assignment has two parts. The first is the same as described above. The second is to design a second experiment based on the same methodology, but demonstrating the phenomenon of **blocking** (see Walker, chapter 5). To do this, your paper will probably have to be more than 10 pages long.