

Theories of Learning: Behavioral Perspective (Psych 6650)

Fall, 2007

Class Time: Monday 1:00-4:00 pm

Location: 204 Military Science.

Instructor: Tim Shahan, Ph. D.
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Office Hours T&W 11:00-12:00
or by appointment

Course Readings

Readings for the course are available on the electronic reserve [eres.usu.edu (password=sha6650)]. See pages 3-4 for a list of readings

Course Description

This course will start with a review of basic concepts in operant and classical conditioning and then proceed to modern empirical and theoretical developments. Topics to be discussed will include choice, behavioral economics, delay discounting, self-control/impulsivity, behavioral momentum, reinforcement of variability/creativity, and attending and remembering. We will also discuss implications of these theories for the modification of behavior in general, and examine their application to specific areas like developmental disabilities and drug abuse. Students will be expected to examine the implications of these empirical and theoretical developments for issues in their specific field of interest.

Course Grade

Your grade will be based on 11 Summary Papers, 11 sets of points of discussion (PODs), in-class participation, and a final paper and presentation.

How Your Grade is calculated:

	<u>Points Available</u>
11 – Summary Papers @ 40 pts each	440
11 – PODs/participation @25pts	275
Final Paper	225
Presentation	60
Total	1000

926-1000	= A
900-925	= A-

875-899	= B+
826-874	= B
800-825	= B-

775-799	= C+
726-774	= C
700-725	= C-

675-699	= D+
626-674	= D
600-625	= D-

Students are required to attend every meeting.

Summary Papers are due at the beginning of each class. These papers should provide a concise 1-2 page summary of the important findings or ideas presented in the week's readings. The PODs (below) provide the opportunity for you express your reaction to the readings and share them with the rest of the class via the discussion.

PODs. Students will submit 2 points of discussion per week. PODs will be submitted via email and must be received by 9:00 a.m. the day of class. These PODs should address substantive questions about the reading material and should be written so as to encourage discussion. Examples of PODs might include 1) questioning the assumptions or reasoning of the author, 2) suggesting further experimental, theoretical, or applied extensions of the work covered in the reading, 3) potential relations to other areas, or 4) anything else that will prompt discussion and/or demonstrate serious consideration of the material. Each POD is worth 10 points and participation in class is worth 5 points. Your participation will be evaluated based on the quality and quantity of your contributions to the discussion.

Final Paper. The paper should examine the implications of one of the empirical and theoretical developments discussed in the course for issues in your specific field of interest. All papers should include a review of the relevant literature and propose a research question in your area based on a topic related to issues discussed in class. These papers must consider material beyond that presented in class. Empirical and theoretical issues not specifically discussed in class may be acceptable with permission. All students must meet with me to discuss the topic of their paper. *Papers should be between 10 and 15 pages in length and use 12 pt Times New Roman font with 1 inch margins all around.*

Presentation. Each student will formally present a condensed version of their paper to the class. We will discuss each presentation as a group and all students will provide formalized anonymous feedback to each presenter. One third of the points allocated to the presentation will be based on the average student review.

Academic Dishonesty. Cheating of any kind will not be tolerated. This includes copying someone else's work and representing it as your own.

Statement on Plagiarism. Plagiarism is a form of cheating, punishable (at the discretion of the instructor) by failure in the course in which it occurs and possibly (at the discretion of the dean) by suspension or dismissal from the University. Plagiarism most commonly occurs when material is taken from a source without proper citation. Whenever material is directly quoted it must appear in quotation marks and be properly cited.

Course Schedule and Readings

(This is a minimal list. Additional readings may be assigned based on the flow of our discussions)

Week 1 (8/27): Introduction

Labor Day Break (9/3)

Week 2 (9/10): Review of Basic Concepts

Reynolds G. S. (1975). *A primer of operant conditioning: Revised.* (pp. 1-103). Glenview: Scott, Foresman and Company.

Week 3 (9/17): Classical Conditioning (a.k.a. Associative Learning)

Wasserman, E. A., & Miller, R. R. (1997). What's elementary about associative learning? *Annual Review of Psychology*, 48, 573-607.

Week 4 (9/24): The Matching Law I

Herrnstein, R. J. (1961). Relative and absolute strength of response as a function of frequency of reinforcement. *Journal of the Experimental Analysis of Behavior*, 4, 267-272

McDowell, J.J. (1989). Two modern developments in matching theory. *The Behavior Analyst*, 12, 153-166.

Week 5 (10/1): The Matching Law II

Borrero, J. C., & Vollmer, T. R. (2002). An application of the matching law to severe problem behavior. *Journal of Applied Behavior Analysis*, 35, 13-27

McDowell, J. J. (1988). Matching theory in natural human environments. *The Behavior Analyst*, 11, 95-109.

Week 6 (Move to W,TH, or F): Matching, Melioration, Maximization, and Irrationality

Vaughan, W. (1981). Melioration, matching, and maximization. *Journal of the Experimental Analysis of Behavior*, 36, 141-149.

Week 7 (10/15): Matching, Melioration, Maximization, and Irrationality II

Herrnstein, R.J. (1990). Rational choice theory: Necessary but not sufficient. *American Psychologist*, 45, 356-367.

Week 8 (10/22): Self-Control and Delay Discounting

Rachlin, H., & Green, L. (1972). Commitment, choice and self-control. *Journal of the Experimental Analysis of Behavior*, 17, 15-22.

Reynolds, B. (2006). A review of delay-discounting research with humans: Relations to drug abuse and gambling. *Behavioural Pharmacology*, 17, 651-667.

Week 9 (10/29): Behavioral Economics

Hursh, S. R. (1980). Economic concepts for the analysis of behavior. *Journal of the Experimental Analysis of Behavior*, 34, 219-238.

DeGrandpre, R. .J., & Bickel, W. K. (1996). Drug dependence & as consumer demand. *Advances in behavioral economics: Volume 3, Substance use and abuse.* Norwood: Ablex.

Week 10 (11/5): Reinforcement of Variability

Neuringer, A. (2002). Operant variability: Evidence, functions, and theory. *Psychonomic Bulletin & Review*, 9, 672-705.

Week 11 (11/12): Behavioral Momentum

Nevin, J. A. (1996). The momentum of compliance. *Journal of Applied Behavior Analysis*, 29, 535-547.

Nevin, J. A., & Grace, R. C. (2000). Behavioral momentum and the law of effect. *Behavioral and Brain Sciences*, 23, 73-90.

Week 12 (11/19): Attention and Memory

Sutton, J. E., & Roberts, W. A. (2001). Attentional processes in compound stimulus processing by pigeons. In R. G. Cook (Ed.), *Avian visual cognition* (p[On-line]. Available: www.pigeon.psy.tufts.edu/avc/sutton/

White, K.G. (2001). Forgetting Functions. *Animal Learning & Behavior*, 29, 193-207.

Week 13 (11/26): Student Presentations**Week 14: (12/3): Student Presentations**

Final Paper Due 12/10 by 10:00 a.m.
