LEARNING! PSYC 2500 sec 001, Fall 2024 ARJ 143

Tue Thu 5:00-6:15

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and by appointment

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## **READING:**

- 1. REQUIRED: Mazur, James E. (2013). Learning and Behavior (7th ed.). Boston, MA: Pearson. (ISBN 13: 978-0-205-24644-1, also 978-0-205-24654-0) [or 6th, 5th, 8th editions—see page references for those editions]
- 2. REQUIRED: Supplemental On-Line Readings (as posted)
- 3. OPTIONAL: Papers linked at <a href="http://psychclassics.yorku.ca/">http://psychclassics.yorku.ca/</a>

## **GRADING:**

Two Quizzes: 30% approximately 5th and 12th weeks of class (Thu 9/26, Thu 11/14)

NOTE: QUIZ 2 is done at-home and will be posted soon after

11/14 to be be due about 12/5; details to appear as date approaches

Midterm: 35% approximately 10th week of class (Thu 10/31)

Final: 35% TBA - FINALS WEEK AS SCHEDULED BY THE REGISTRAR

This course reviews the philosophical antecedents and conceptual basis of psychological theories of learning. Particular attention is then given to the various phenomena of classical and operant conditioning and the degree to which conditioning theories of animal learning can explain human behavior. An historical perspective examines how the behaviorist program was compelled by its own findings to incorporate some cognitive (rationalist / nativist) aspects into its empiricist / associationist outlook.

## READINGS (subject to expansion and revision)

## **MAZUR SEVENTH EDITION page references**

in Mazur, James E. (2013). Learning and Behavior (7th ed.). Boston, MA: Pearson. (ISBN 13: 978-0-205-24644-1, also 978-0-205-24654-0)

CH.1: The Psychology Of Learning And Behavior

- \* pp. 10-15, "Behavioral and Cognitive Approaches to Learning," "The Emphasis on External Events"
- \* pp. 4-7 the Empiricist / Associationist tradition; (Rationalist / Nativist tradition covered in lecture)
- \* OPTIONAL: Ebbinghaus's human memory experiments pp. 7-10
- \* omit pp. 15-24 on physiology

CH.2: Innate Behavior Patterns And Habituation -- entire chapter; note highlights and exceptions:

- \* reflex p. 28; tropism p. 29: kineses p. 29 and taxes p. 30; fixed-action patterns pp. 30-32; reaction chains pp. 32-33
- \* habituation: pp. 35-39; *omit* pp. 39-41 on "Physiological Mechanisms Of Habituation"; continue with pp. 41-46 on the "Opponent-Process Theory"

CH.3: Basic Principles Of Classical Conditioning -- entire chapter; note highlights and exceptions:

\* *omit* "Aversive Counterconditioning" and "Treatment of Nocturnal Enuresis" pp. 70-73; continue with chapter summary on pp. 73-74

CH.4: Theories And Research On Classical Conditioning -- entire chapter; note highlights and exceptions:

- \* omit "Theories Of Attention" and "Comparator Theories Of Conditioning" pp. 82-83
- \* continue with p. 84 on "Associations In First-Order Conditioning" and "Associations In Second-Order Conditioning"
- \* omit "Associations With Contextual Stimuli," "CS-CS Associations," and "Occasion Setting" pp. 85-86
- \* continue with pp. 86-96 "Biological Constraints On Classical Conditioning" through "Conditioned Opponent Theories"
- \* omit "Physiological Research On Classical Conditioning" pp. 96-99; continue with chapter summary p. 99-100

Index of Classical Conditioning Phenomena:

Acquisition [49-50, 55-56]

Extinction [56-57]

Spontaneous Recovery [57-58]

Inhibition / Excitation [57-58]

Disinhibition [58]

Rapid Reacquisition [59]

Pavlov's Stimulus Substitution Theory [52-53]

S-S and S-R Associations [54-55]

- Rescorla's Devaluation and Revaluation Procedures

Higher-Order Conditioning [64-66]

Sensory Preconditioning

Conditioned Inhibition [59-60]

- Retardation and Summation Tests

Latent Inhibition / CS Pre-Exposure Effect [82]

US Pre-Exposure Effect

Sensitization (increased responsiveness to ANY stimulus after presentation of a strong US)

Generalization and Discrimination [60-61]

Role of the response in modern interpretations of classical conditioning may really just be as a dependent variable to measure strength of CS-US association (or of any S-S association); CR and UR as such aren't necessarily interesting

Psychoneuroimmunology (Conditioning of the Immune System) [67-68]

Watson's "Little Albert" Experiment on Phobias [68-69]

Systematic Desensitization [68-70]

Drug Tolerance, Withdrawal, Paradoxical Overdose [92-95]

Conditioned Opponent Theories [95-96]

- Sometimes Opponent Process (SOP)

Pavlov's Assumptions of Contiguity and Arbitrariness / Equipotentiality [87-88]

Taste Aversion Learning / Biological Constraints on Learning / Belongingness [86-89, 90-92]

- Garcia's Experiment / The Garcia Effect [88-89]
- Wilcoxon, Dragoin, and Kral's Experiment [89]
- Hospital Anorexia (Taste Aversions in Chemotherapy)

Rescorla's Contingency Experiments (CS-US Correlations) [63-64]

- Experiment on Dogs Receiving Forward, Backward, and Mixed Conditioning
- Experiment on Rats Receiving Same Contiguity but Different Contingencies of Tone and Shock

Blocking and Overshadowing [76-80]

Rescorla-Wagner Model of Learning On Individual Conditioning Trials [77-82]

Overexpectation Effect [80-81]

CH.5: Basic Principles Of Operant Conditioning

- \* "The Law Of Effect" pp. 101-104; "The Research Of B.F. Skinner" pp. 112-114
- \* pp. 104-108: superstitious behaviors and Staddon and Simmelhag's(1971) interpretation in terms of interim and terminal behaviors (note relation to autoshaping / sign-tracking experiment on pp. 120-124)
- \* pp. 108-112: shaping (but *omit* pp. 111-112 on "percentile schedules")
- \* p. 108 conditioned reinforcers
- \* pp. 115-116 generalized reinforcers
- \* pp. 117-119 chaining
- \* pp. 119-125 biological constraints on operant conditioning: Brelands and intinctive drift; autoshaping or "sign-tracking" interpreted as classical rather than operant conditioning (note relation to SSDRs pp. 159-160)

CH.6 "The Four Simple Reinforcement Schedules" pp. 128-134

CH.7 "Punishment" p. 164; "Is Punishment The Opposite Of Reinforcement" pp. 164-165; "Disadvantages Of Using Punishment" pp. 168-169; "Negative Punishment" pp. 169-170; "Negative Punishment: Response Cost And Time-Out" pp. 172-173

- \* pp. 152-153 definition of negative reinforcement and punishment
- \* pp. 154-155 "two-factor theory"
- \* pp. 159-160 Bolles's idea of "species-specific defense reactions" or SSDRs
- \* pp. 161-164 learned helplessness

CH.8 "How Can We Predict What Will Be A Reinforcer?" pp. 185-187 (through "Drive Reduction")

- \* pp. 179-180 Tolman's views about the role of reinforcement; latent learning
- \* pp. 181-183 Neal Miller's work on operant conditioning of visceral responses; James Olds's work on electrical stimulation of the brain as a reinforcer
- \* pp. 188-189 Premack's principle
- \* pp. 191-193 response deprivation theory (Timberlake and Allison)