Key Dates

- TU Apr 18 Unit 24
- TH Apr 20 Unit 25; Psychological Perspective Assignment in class
- TU Apr 25 Begin Social Perspectives, Unit IIIC and 26
- TH Apr 27 (last class) Unit 27; Social Perspective Assignment in class ; Term Paper Step 4
- WE May 3 11:30-2:30 Final Exam (Part I Multiple Choice, Part II Short Essays); Term Paper Step 4 (slight penalty)

Goal: To identify the extent to which learning and cognition might be important in the development of different forms of psychopathology

UNIT 24: BEHAVIORAL AND COGNITIVE MODELS

Learning Outcomes

- By the end of this class, you should be able to:
  - Explain, with examples, how both classical and operant conditioning, separately and in combination, might help us to understand different forms of psychopathology.
  - Explain, with examples, how schedules of reinforcement might help us to understand different forms of psychopathology.
  - Identify one cognitive factor that has been suggested as an important aspect of panic disorder.
  - Describe Seligman's lab experiments with dogs and how they might she light on the origins of depressive disorders.
  - Describe Marlatt's experiments with alcoholics and how they might she light on the origins of substance use disorders.

Behavioral and Cognitive Models

- Behaviorism and theories of learning
  - Principles of learning are universal, applying to both normal and abnormal behavior
  - Psychopathology results from either:
    - "Surplus" behaviors: too much of a maladaptive response; or
    - "Deficit" behaviors: too little of an adaptive response
  - Principles cover both acquisition (learning) and extinction or suppression of responses (unlearning)
  - Little Albert and *the experimental analysis of behavior*

Behavioral and Cognitive Models

- The ABCs of learning: antecedents, behavior, consequences
- Classical conditioning (Pavlov), Watson) focuses on stimuli (antecedents) that elicit responses
- Operant conditioning (Skinner) focus more on consequences: reinforcers and punishers (positive and negative) that strengthen or weaken responses
- Schedules of reinforcement and punishment
- Discriminative stimuli determine which response is performed
- Observational learning (Bandura)

Behavioral and Cognitive Models

- Learning maladaptive emotional responses
  - Uncontrollable and unpredictable stressors and the conditioning of arousal/anxiety
  - Avoidance behavior strengthened by negative reinforcement
  - Conditioning of fear in phobias
  - Observational learning of fears/phobias
  - “Two-factor theory” of phobias and of OCD: classical conditioning of obsessional anxiety, anxiety-reduction to reinforce compulsion
  - Low rates of reinforcement for non-depressed behavior and learning to be depressed

Behavioral and Cognitive Models

- Learning maladaptive behaviors: alcohol and drugs
  - Psychoactive drugs as powerful reinforcers
  - Tolerance seen as classical conditioning of physiological compensation by which body learns to counteract the drug
    - Conditioned compensation responses might be basis for craving, elicited by conditioned stimuli
    - Using again eliminates craving=negative reinforcement for relapse
  - Observational learning and peer influence, “adult children” of alcoholics

Behavioral and Cognitive Models

- Learning maladaptive behaviors: other impulse-control behaviors
  - Gambling and variable-ratio reinforcement=high resistance to extinction
  - Discounting delayed rewards/preferring immediate rewards might help explain gambling disorder and other addictive behaviors
  - Early inappropriate sexual experiences and conditioning of sexual arousal as possible factor in paraphilias
  - Deficient learning of anticipatory fear/anxiety as possible basis for reckless disregard of consequences in antisocial/psychopathic behavior

Behavioral and Cognitive Models

- Learning-based explanations have not been much emphasized in understanding of cognitive dysfunctions (i.e., dissociative and psychotic disorders, ID, ASD)
- Learning-based explanations for health-related behaviors emphasize observational learning and “secondary gain” (attention and other reinforcers for illness behaviors)
- Negative sexual experiences can be basis for classically-conditioned reactions of fear, guilt, or disgust that could lead to sexual desire and arousal disorders

Behavioral and Cognitive Models

- Cognitive factors in fear and anxiety
  - Catastrophic misinterpretation in panic disorder
  - Perhaps triggered by classically-conditioned physiological cues that precede panic attacks
  - Uncontrollable negative events, perceived lack of control, and hypervigilance in generalized anxiety disorder

Behavioral and Cognitive Models

- Cognitive factors in depression
  - Negative cognitions and depression
    - Automatic thoughts and the cognitive triad
    - But are the negative thoughts symptoms or causes of depression?
  - Learned helplessness and Seligman's dogs
  - Optimism vs. pessimism in automatic thoughts
  - The attribution model of depression
    - Internal-external, stable-unstable, global-specific
    - Example: effect of attributing one's failure to an internal, stable, global cause

Behavioral and Cognitive Models

- Cognitive factors in behavioral disorders
  - The role of expectancies in alcohol and drug behavior: the Marlatt et al. study
  - Estimating outcomes: in substance use disorder people overestimate good outcomes, underestimate bad
  - Some have proposed that addiction might be a *choice* some people make based on faulty reasoning
  - The gambler's fallacy

Behavioral and Cognitive Models

- Cognitive factors in schizophrenia
  - Schizophrenia has cognitive *symptoms*, but very little emphasis on cognitive *causes*
  - Possible deficit in reaction times, attentional deficits, working memory deficits, poor eye-tracking as neurodevelopmental “markers” (or “early warning signs”)
  - Such deficits might impair reality-testing and capacity for rational thinking

Behavioral and Cognitive Models

- The sociocognitive model of dissociative identity disorder: distinct identities result from suggestion
- The theory-of-mind deficit in autism spectrum disorder
- Cognitive misinterpretations as key to illness anxiety disorder
- The role of negative attitudes/expectations ("performance anxiety") in sexual dysfunctions