

## Respondent & Operant Conditioning Together

Any given experience is likely to contain both respondent and operant components.

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### Example #1: Procrastination / Responding to Meet a Deadline:

- Due to a history of *pairing* failure to meet deadlines and an aversive consequence (punishment), an approaching deadline is likely to *elicit* feelings of anxiety.



- Respondent component:  
Deadline + Punishment → Anxiety  
(Neutral stimulus) (UCS) (UCR)

Deadline (CS) → Anxiety (CR)

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### Example #1: Procrastination / Responding to Meet a Deadline:

- Even thinking about the approaching deadline could cause anxiety due to the repeated pairings of the thoughts of the deadline with the punishing consequences.

Thoughts of deadline + approaching deadline → Anxiety  
(initially neutral stim.)+ (CS) → (CR)

after repeated pairings:

Thoughts of deadline (CS) → Anxiety (CR)

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### Example #1: Procrastination / Responding to Meet a Deadline:

- All the behaviors involved in meeting the deadline and doing the work involved are *operant* behaviors that are *emitted* with the reinforcing consequence of relieving the anxiety.

Operant component:

Work toward completing project → relief of anxiety  
(emitted behavior)                      (negative reinforcement)

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### Example #2: Development of a Phobia

- A child fearlessly runs to pet a large dog. The dog playfully jumps on the child, knocking him down unexpectedly causing him pain as he falls.



Respondent component:

Sight of dog (NS) + Being knocked down (UCS) →  
Child cries and shows emotional distress (UCR)

Sight of dog (CS) → emotional distress (fear, anxiety) (CR)

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### Example #2: Development of a Phobia

- Operant component:  
The *emitted* behavior of approaching the dog was punished by being knocked down, so the child is less likely to approach dogs in the future.

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## Example #2: Development of a Phobia

- Respondent component:
- Because the sight of the dog was *paired* with the punisher of being knocked down, the sight of a dog is likely to become a *conditioned punisher*.
- The child is likely to run away from dogs in the future (escape conditioning) or avoid them all together (avoidance conditioning). This will decrease anxiety and will reinforce the escape or avoidance behavior.

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## The Role of Respondent & Operant Conditioning in Emotions

Our *feelings*, or the autonomic nervous system component of emotions are particularly susceptible to *respondent conditioning*.



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## The Role of Respondent & Operant Conditioning in Emotions

Fight / Flight Responses:

- Adrenalin is secreted
- Heart rate increases
- Breathe more rapidly
- Sweating
- Blood vessels in stomach and intestines restrict causing "queasiness" in stomach
- Possible temporary loss of bowel or bladder control



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### The Role of Respondent & Operant Conditioning in Emotions

Through pairing initially neutral stimuli with unconditioned stimuli that naturally elicit such autonomic responses (UCR), these reflexes can become conditioned, e.g. Watson's experiments with Poor Little Albert.

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### The Role of Respondent & Operant Conditioning in Emotions

The way we respond behaviorally to these feelings, our descriptions of our feelings, and our awareness of our feelings are all susceptible to *operant conditioning*.

Through our experiences with others and with reinforcement and punishment, we learn how to label our feelings and learn which emotional behaviors are acceptable.

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### The Role of Respondent & Operant Conditioning in Emotions

Presentation and withdrawal of reinforcers and punishers constitute four major emotions:

1. Presentation of reinforcers causes *happiness*.
2. Withholding or withdrawal of reinforcers causes *anger*.
3. Presentation of punishers or aversive stimuli causes *anxiety*.
4. Withdrawal of aversive or punishing stimuli causes *relief*.

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## Respondent & Operant Components of Thinking

- Imagery: Respondent Component
- Because of repeated *pairings* of actual sensory stimulation (e.g. seeing a blue sky) with words (e.g. "blue sky"), eventually the words themselves come to *elicit* the same activity in the visual system such that you can "see" the image in response to the words—*conditioned seeing*.



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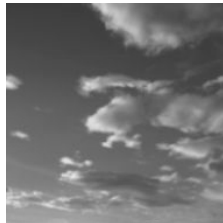
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## Respondent & Operant Components of Thinking

- Imagery: Respondent Component
- Such conditioning can occur with any sense (hearing, smell, etc.) and form the basis of our ability to fantasize, derive enjoyment from a book, etc.



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## Respondent & Operant Components of Thinking

- Self-Talk: Operant Component
- Verbal behavior is taught to us through *operant conditioning*. There are reinforcing consequences of being able to accurately label things in the environment, communicate, and make requests. By age of five or six, we are able to engage in subvocal speech, an internal dialogue or self-talk.

I know I can succeed!



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## Respondent & Operant Components of Thinking

- An interaction:
- Through pairing with an UCS, the operant self talk can become a CS to elicit certain feelings. (This is the basis of cognitive behavioral modification to be discussed later in the semester.) For example, through your internal dialogue, you can “psych yourself up” for a performance or, to a negative extreme, damage your self esteem and contribute to the development of depression.

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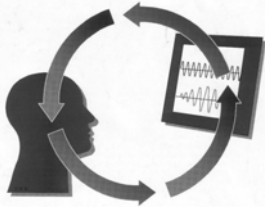
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## Biofeedback & Behavioral Medicine

Behaviors previously thought to be exclusively under involuntary control (respondent behaviors) have been operantly strengthened / weakened. Includes behaviors such as skin temperature, brain waves, heart rate, etc.



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## Biofeedback & Behavioral Medicine

Biofeedback involves using auditory, visual or other sensory information to assess and modify physiological responses.

Client and practitioner observe and monitor changes in the clients physiological responses that are measured electronically and displayed on a monitor.

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## Biofeedback & Behavioral Medicine

Biofeedback has been used to treat a variety of problems: insomnia, headache, hypertension, chronic pain, urinary incontinence and irritable bowel syndrome

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## Respondent and Operant Components of Pain Management

Pain, like other behaviors can be influenced by controlling the antecedents and consequences of the behavior.



Respondent Components:  
Stimuli that stimulate pain receptors (US) → Sensation of Pain (UR)

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## Respondent and Operant Components of Pain Management

Respondent Components:  
Stimuli that stimulate pain receptors (US) → Sensation of Pain (UR)

Often there are cognitive components (e.g. self statements, thoughts/perseveration about the pain) that are paired with the US and can come to elicit and/or intensify the experience of pain.

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## Respondent and Operant Components of Pain Management

### Operant Components:

There are a variety of consequences that can potentially serve as positive reinforcers the pain: attention, sympathy, disability payments, financial compensation from insurance settlements.

Likewise, there are a variety of potential negative reinforcers: avoiding work and other responsibilities.

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