# Behavioral Theory (Learning) Raymond Nelson, MA, NCC Learning • Overt behavior + internal state of knowledge • Animals learn about stimuli in their environment · Animals learn about their own behavior • Learning in an inferred change in an individual's mental state or potential behavior · Always observed through behavior • Stems from experience Reflexes · Simplest form of behavior • Stimulus + Response - Knee jerk - Startle - Rooting - Gagging - Blink - Sneeze - Imprinting

## Behavioral Change

- Sensitization increase in response
  - Usually temporary
- Habituation loss of response
  - Can be temporary or long term
- Fatigue
  - Response to a different stimulus rules out fatigue

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# **Conditioning Theory**

- Learning is accomplished through experience
- · Anticipate the events that follow a stimulus
- Can result in an autonomic response or adjustment in behavior

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# Classical Conditioning

Pavlov's dogs
Pavlovian conditioning

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| Operant Conditioning   |  |
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| Use of Consequences to shape behavior  |  |
| - Ose of Consequences to shape behavior  |  |
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| Total Note ( Note )   Note of the Note of  |  |
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| Key Concepts   |  |
| Habituation  |  |
| <ul> <li>Sensitization</li> </ul>  |  |
| Dishabituation   |  |
| <ul> <li>Desensitization</li> </ul>  |  |
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| The state of the s |  |
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| Habituation  |  |
| Loss of response (becoming acclimated) to a  |  |
| stimuli through repeated exposure  |  |
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#### Sensitization

• Becoming more responsive to a stimuli as a result of repeated exposure

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#### Dishabituation

- Re-gaining a previously habituated response
- Accomplished by removing or interrupting the presence of a stimuli

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#### Desensitization

- Subsiding or reduction of a previously sensitized response
- Accomplished through removal of the stimuli or some form of therapy (stress inoculation)

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## Reinforcement Theory

- A process of shaping behavior by controlling the consequences experienced as a result of the behavior
  - Primary reinforcement
    - Food,
    - Affection (sex)
    - Survival needs
  - Secondary reinforcement
    - Economic gain
    - Social status
    - Power
    - Self-concept

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#### Extinction

- Loss or reduction of a learned response through non-reinforcement
- "If you ignore it, he'll stop"
- Extinction burst
  - It gets worse before it gets better

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#### Reinstatement

Refers to regaining a response that was previously extinguished

| previously extinguished  |  |  |
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#### Reward and Punishment

- Positive something is given
- Negative something is taken away
- Positive punishment: something undesirable is given
- Positive reward: something desirable is given
- Negative punishment: something desirable is taken away
- Negative reward: something undesirable is taken away

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## **Defensive and Orienting Responses**

- Sokolov (1963)
- Pavlov (1927)
- · "what is it?"

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# Reinforcement Schedule • Timed / periodic • Intermittent / Variable / random Non-contingent Reinforcement • Reward is provided on a timed or variable schedule without regard for a behavioral precipitant • Eliminates the need for a behavior Orienting Response Habituates quickly • Prevents distraction resulting from neutral stimuli

# DRs and ORs in Polygraph Testing

- Defensive Resonse is assumed to occur in response to RQs and CQ
  - Deceptive subject: greatest DR to RQs
  - Truthful subject: greatest DR to CQs
- Orienting response occurs to Ns and other Qs

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The End.

Thank You.

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