Behavioral Learning Theory (continued)

Operant Conditioning

Operant Conditioning
- a form of learning in which responses or behaviors come to be controlled by their consequences.
- focus is on consequent events
- voluntary behaviors -- not reflexes

Operant Conditioning Terminology
- Positive Reinforcement
- Negative Reinforcement
- Presentation Punish. (Punish. Type I)
- Removal Punish. (Punish. Type II)
- Extinction
The image shows a diagram labeled "Skinner Box." The diagram illustrates a box with various components, including a lever for the animal to press and a food dispenser. The text above the diagram reads "Figure 6.13  Skinner Box." Below the diagram, there is a table with the following headings: "Stimulus or Event (added)" and "Stimulus or Event (taken away)." The table has two columns for increased and decreased frequency.
<table>
<thead>
<tr>
<th>Event/Condition</th>
<th>Increased Frequency</th>
<th>Decreased Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimulus or Event Presented (added) +</td>
<td>Positive Reinf.</td>
<td></td>
</tr>
<tr>
<td>Stimulus or Event Removed (taken away) -</td>
<td></td>
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**Extinction burst**

- Freq. of Beh.
- Time

**Scenarios**

- What is the behavior to focus on?
- What is happening to this behavior over time (increasing or decreasing)?
- If increasing, then its: pos or neg reinf
  - Is something added when the behavior occurs? (pos reinf)
  - Is something taken away/removed when the behavior occurs? (negative reinf)
Scenarios

- If decreasing then its: presentation punish; removal punish; or extinction
  - Is something added when the behavior occurs? (pres punish)
  - Is something taken away/removed when the behavior occurs? (removal punish)
  - Is some reinforcer just withheld when the behavior occurs? (extinction)

Types of Reinforcers

- Material/Tangible
- Social
- Token
- Activity
- Premack’s Principle (Grandma’s Rule)

I’ve tried everything and nothing works!!!

Here’s several possibilities:

- Punishment may be used as the main way of trying to manage behavior

Inconsistency is present:
  - Within a single individual
  - Between individuals
Techniques have not been tried long enough

Consequences may not be important enough

The behavior may get worse before it gets better (e.g., extinction)

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Schedules of Reinforcement

Schedules of reinforcement: determine which occurrences of a specific response result in the presentation of a reinforcer

Reason schedules are important – different schedules have different effects on behavior

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Schedules of Reinforcement

- Fixed Ratio (FR)
  - FR 1 = Continuous
- Variable Ratio
- Fixed Interval
- Variable Interval
Schedules of Reinforcement

Ratio schedules

- Fixed Ratio (FR): reinforcer is given after a fixed number of responses
  (Example:  )
  - FR 1 = Continuous Reinforcement

- Variable Ratio (VR): reinforcer is given after a variable number of responses (Example:  )

Schedules of Reinforcement

Interval schedules

- Fixed Interval: reinforcer is given for the first particular response after a fixed amount of time has elapsed
  (Example:  )

- Variable Interval: reinforcer is given for the first particular response after a variable amount of time has elapsed (Example:  )

Scalloping
(with Fixed Interval)
Group Contingencies

- Dependent Group Contingency
- Interdependent Group Contingency
- Independent Group Contingency

2 Examples of Interdependent Group Contingency

- Naughty Finger Study
- Good Behavior Game

End of Behavioral Learning Theory