

Limits of Behaviorism (Lecture 8)

III. LIMITS OF BEHAVIORISM

A. Universality of the Laws of Learning

- To behaviorists, learning is studied by identifying the environmental contingencies that give rise to relatively permanent changing of behavior.
- They assume **universality of the laws of learning** (Classical and Operant Conditioning).
 - The same laws of learning apply to all **species**.
 - The same laws of learning apply to all **forms of learning**.
- But universality does not mean that behaviors are learned in the same way for everyone.

III. LIMITS OF BEHAVIORISM

B. Non-environmental factors & learning

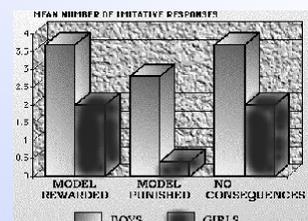
- The universality of the laws of learning have been challenged, and with it, the viability of Behaviorism.
- It is argued that other factors than environmental contingencies influence learning
- It has been argued that
 - cognitive factors (how you think) influences learning.
 - biological factors (brain organization) influences learning.

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C. Cognitive Factors

- **Role of Observation in Learning?**
 - **Observational Learning:** A process in which an individual learns new responses by observing the behavior or another (a model) rather than through direct experience.

Bandura observed children's play with a bobo doll after they watched video of an aggressive adult (model) being rewarded, punished, or having no consequences for her behavior. He found that observational condition affected performance



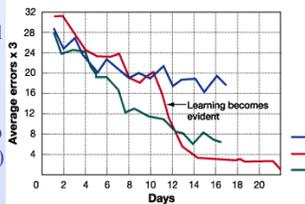
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▪ Role of Reinforcement in Learning?

- **Latent Learning:** Refers to learning which occurs in the absence of reinforcement and that is not apparent until reinforcement is introduced.

Tolman studied maze-learning in rats given 1 trial per day. Group 1 found food every time and gradually improved (green line). Group 2 never found food and didn't improve (blue line). Group 3 found food on Day 11 (red line) and showed latent learning.



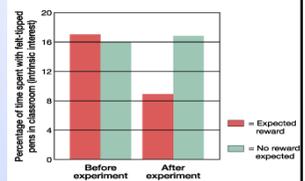
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▪ Role of Human Interpretation?

- **Intrinsic vs. Extrinsic reinforcers** are ones interpreted as inherently (intrinsically through enjoyment, satisfaction, accomplishment) or not inherently (extrinsically through money, prizes, praise) related to the action being reinforced.

Preschoolers who were promised prizes for drawing with felt-tip pens spent less time with the pens when the rewards were removed (Red). This was not true of kids who received the reinforcers non-contingently (Green).



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D. Biological Factors

- Universality of the laws of learning suggests that all species learn in the same way.
 - Breland and Breland (animal trainers for TV and movies) found species differences in learning specific behaviors.
 - Easy to teach seals to balance a nickel on its nose.
 - Impossible to teach raccoons to balance a nickel on its nose.
 - Animals biologically built differently to learn some behaviors quicker and easier than to learn other behaviors.