

Principles of Reinforcement Learning Theory



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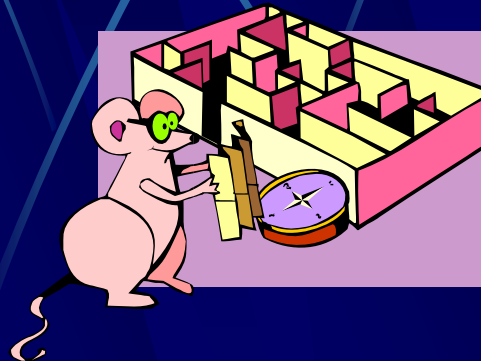
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Reinforcement Theory Background

- Based on Skinner's Operant Conditioning Theory

Over time, the mouse becomes smarter and retrieves the cheese quicker.



Reinforcement Theory

*"Positive and Negative Consequences
Influence Behavior."*



Principles of Reinforcement



- Consequences which give rewards increase behavior.
- Consequences which give punishments decrease a behavior.
- Consequences which give neither rewards nor punishments extinguish a behavior.

Reinforcement Theory is a Functional Theory

- Defined by it's function
- Requires response from an external source
- This is most successful for heuristic thinkers.

Rules of Consequence

When in some situation,



Do some behavior,



Get some consequence.

Class Activity

When called upon, answer the following questions honestly.

Keep your response to a couple of sentences, for sake of time.

Discussion Points

- How are you today?
- What is your opinion of our President?
- How well are automobiles built today?
- Describe your last vacation.
- Describe your last visit to the doctor.

Outcome

Which behaviors were rewarded?

Which behaviors were punished?

Positive Answers



Negative Answers



Neutral Comments received no response.

Positives to Consider when using Reinforcement in Curriculum Development

- Quick response
- Immediate feedback
- Most effective when working with children (with limited experience) and animals
- Pedagogical curriculum

Limitations of Reinforcement in Developing a Curriculum

- It is difficult to classify rewards and punishments for different learners.
- Reinforcement must come from one source, in a learning environment.
 - sense of control
 - Peers vs. Teacher
 - Mommy vs. Daddy
 - Multiple supervisors



Limitations to Reinforcement in Developing a Curriculum

- Punishment is difficult to do well.
(Immediate, Intense, Unavoidable, Consistent)
- Internal motivators change
(consequences can change behavior, but not desire)
- Punishment can create tension
- Works well with small children and animals.
- Not the wisest choice when teaching adults.

Reinforcement Theory

Questions?



References

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