Reinforcement, Punishment, & Extinction
This training program is based on the RBT Task List (2nd ed.) and is designed to meet the 40-hour training requirement for RBT certification. The program is offered independent of the BACB.
References

- Behavior Analyst Supervisor (BAS) RBT Study Guide→ [https://behavioranalystsupervisor.com/](https://behavioranalystsupervisor.com/)
In This Presentation

C-3 → Use contingencies of reinforcement
Today we are discussing:

Conditioned versus unconditioned reinforcement and punishment

Positive Reinforcement

Negative Reinforcement

Positive Punishment

Negative Punishment
Conditioned versus Unconditioned

Reinforcement

- Unconditioned (i.e., primary) → things that are needed to survive and need NO learning history
  - Food, water, shelter, sleep, sexual stimulation
- Conditioned (i.e., secondary) → strengthens behaviors through its association with primary reinforcers, learned
  - Money
Conditioned versus Unconditioned

Punishment

- Unconditioned → unlearned, often reflexive
  - Pain, excessive cold or heat, too much light or lack of light, loud sounds
- Conditioned → neutral things that get paired with aversive consequences and avoided in the future
  - Dogs if you’ve been bitten
(+) & (-) Reinforcement & Punishment

Let’s clarify our terms:

Positive → PRESENCE of a stimulus or ADD

Negative → ABSENCE or REMOVAL of a stimulus

Reinforcement → INCREASE in the future frequency of a behavior

Punishment → DECREASE the future frequency of a behavior
(+) & (-) Reinforcement & Punishment

(+) & (-) Reinforcement & Punishment

Operant Conditioning

Reinforcement
Increase Behavior

(+ & (-) Reinforcement & Punishment

Operant Conditioning

Reinforcement
Increase Behavior

Positive
Add appetative stimulus following correct behavior
Giving a treat when the dog sits

Negative
Positive Reinforcement ($S^{R+}$)

Positive reinforcement ($S^{R+}$) is a procedure that increases the occurrence of a target behavior by providing a motivating stimulus as a consequence.

- There's a coffee shop.
- You order coffee.
- You get coffee.

- There's a science project.
- You work very hard.
- You get praise from your teacher.

(Shibutani, 2017)
(+ & -) Reinforcement & Punishment

Operant Conditioning

Reinforcement

Increase Behavior

Positive

Add appetative stimulus following correct behavior
Giving a treat when the dog sits

Negative

Escape
Remove noxious stimuli following correct behavior
Turning off an alarm clock by pressing the snooze button.

Active Avoidance
Behavior avoids noxious stimulus
Studying to avoid getting a bad grade

Negative Reinforcement ($S^{R-}$)

Negative reinforcement ($S^{R-}$) is a procedure that increases the occurrence of a target behavior by removing an aversive stimulus as a consequence.

1. It’s noisy outside.
2. You close the window.
3. The noise is removed.

4. Bugs are everywhere.
5. You use a bug spray.

(Shibutani, 2017)
(+) & (-) Reinforcement & Punishment

Operant Conditioning

Reinforcement
Increase Behavior

Positive
Add appetative stimulus following correct behavior
Giving a treat when the dog sits

Negative

Escape
Remove noxious stimuli following correct behavior
Turning off an alarm clock by pressing the snooze button

Active Avoidance
Behavior avoids noxious stimulus
Studying to avoid getting a bad grade

Punishment
Decrease Behavior

(+) & (-) Reinforcement & Punishment

Operant Conditioning

- Reinforcement: Increase Behavior
  - Positive: Add appetitive stimulus following correct behavior (e.g., giving a treat when the dog sits)
  - Negative: Remove noxious stimuli following correct behavior (e.g., turning off an alarm clock by pressing the snooze button)

- Punishment: Decrease Behavior
  - Positive: Add noxious stimuli following behavior (e.g., spanking a child for cursing)
  - Negative: Remove appetitive stimulus following behavior (e.g., telling the child to go to his room for cursing)

Active Avoidance
- Behavior avoids noxious stimulus (e.g., studying to avoid getting a bad grade)

Escape
- Remove noxious stimuli following correct behavior (e.g., turning off an alarm clock by pressing the snooze button)

Positive Punishment ($S^{P+}$)

Positive punishment ($S^{P+}$) is a procedure that decreases the occurrence of a target behavior by providing an aversive stimulus as a consequence.

You see a toy car your brother is playing with. You grab it from him. You get reprimanded from your father.

You find your friend in the gym class. You talk to him. You get 30 pushups for talking in class.

Different Types of Positive Punishment
• Reprimands

(Shibutani, 2017)
**Negative Punishment (S^p-)**

Negative punishment (S^p-) is a procedure that decreases the occurrence of a target behavior by removing a motivating stimulus as a consequence.

**Example:**

1. You see a ball and a baseball bat. →
2. You break a vase with the bat. →
3. You lose your TV time.

**Another Example:**

1. There is a soccer game. →
2. You hit someone. →
3. You lose the privilege to play soccer.
Extinction

- Reduces behavior by withholding or terminating the positive reinforcer that maintains an inappropriate target behavior

- **Characteristics of behaviors on extinction:**
  - Resistance to extinction
  - Increased rate of behavior – extinction burst
  - Extinction-induced aggression
  - Spontaneous recovery
  - Imitation or reinforcement by others
  - Limited generalizability
  - Sensory extinction
Extinction Considerations

- Can the behavior be tolerated temporarily based on its topography and on its current rate of occurrence?
- Can an increase in the behavior be tolerated?
- Is the behavior likely to be imitated?
- Are the reinforcers known?
- Can reinforcement be withheld?
- Have alternative behaviors been identified for reinforcement?

- Benoit & Mayer (1974)
Practice Questions
1. Examples are food, water, sex, sleep.

A. Secondary reinforcement
b. Primary reinforcement
c. Sd
d. Consequence of behavior
1. Examples are food, water, sex, sleep.

A. Secondary reinforcement
b. Primary reinforcement
C. Sd
d. Consequence of behavior
2. **Examples are money and tokens.**

   a. Primary reinforcement  
   b. Secondary reinforcement  
   c. Economic reinforcement  
   d. Fiscal considerations
2. Examples are money and tokens.

a. Primary reinforcement
b. Secondary reinforcement
c. Economic reinforcement
d. Fiscal considerations
3. Removing a stimulus which decreases the future likelihood of behavior.

a. Positive reinforcement
b. Positive punishment
c. Negative reinforcement
d. Negative punishment
3. Removing a stimulus which decreases the future likelihood of behavior.

a. Positive reinforcement
b. Positive punishment
c. Negative reinforcement
d. **Negative punishment**
4. Increases the future likelihood of behavior.
   
   a. Punishment
   b. Motivation
   c. Rewards
   d. Reinforcement
4. Increases the future likelihood of behavior.

a. Punishment
b. Motivation
c. Rewards
d. Reinforcement
5. Withholding reinforcement for a target response
   a. Variable reinforcement
   b. Extinction
   c. Punishment
   d. Reinforcement schedule
5. Withholding reinforcement for a target response

a. Variable reinforcement
b. **Extinction**

c. Punishment
d. Reinforcement schedule
6. Adding a stimulus which increases the future likelihood of behavior.

a. Positive reinforcement
b. Positive punishment
c. Negative reinforcement
_d. Negative punishment
6. Adding a stimulus which increases the future likelihood of behavior.

   a. Positive reinforcement
   b. Positive punishment
   c. Negative reinforcement
   d. Negative punishment
7. What occurs when reinforcement of a previously reinforced behavior is no longer provided, resulting in the decrease of frequency of the behavior in the future?

a. Extinction  
b. Endangerment  
c. Pivotal Response Training  
d. Negative reinforcement
7. What occurs when reinforcement of a previously reinforced behavior is no longer provided, resulting in the decrease of frequency of the behavior in the future?

a. **Extinction**

b. Endangerment

c. Pivotal Response Training

d. Negative reinforcement
8. Extremely bright lights, freezing temperature, electric shock are all examples of which punisher?

a. Conditioned
b. Unknown
c. Unconditioned
d. Secondary
8. Extremely bright lights, freezing temperature, electric shock are all examples of which punisher?

a. Conditioned
b. Unknown
c. **Unconditioned**
d. Secondary
9. Adding something that will motivate a person to increase the likelihood that they will engage in the target behavior again. What type of reinforcement is this?

a. Positive 
b. Negative 
c. Continuous 
d. Discontinuous
9. Adding something that will motivate a person to increase the likelihood that they will engage in the target behavior again. What type of reinforcement is this?

a. **Positive**
b. Negative
c. Continuous
d. Discontinuous
10. This follows a response and increases the probability of that response occurring again in the future.

A. Punishment
b. Reinforcement
c. Consequence
d. Stimulus
10. This follows a response and increases the probability of that response occurring again in the future.

A. Punishment
b. **Reinforcement**
c. Consequence
d. Stimulus
11. Money is an example of what type of reinforcement?

a. Negative  
b. Unconditioned  
c. Secondary  
d. Primary
11. Money is an example of what type of reinforcement?

a. Negative
b. Unconditioned
c. Secondary
d. Primary
12. For a child who is always picked up when they cry, not picking them up in the future would be an example of…?

a. Escape
b. Elopement
c. Extinction
d. Negative reinforcement
12. For a child who is always picked up when they cry, not picking them up in the future would be an example of...?

a. Escape  
b. Elopement  
c. **Extinction**  
d. Negative reinforcement
13. Food is an example of what type of reinforcer?

a. Unconditioned
b. Conditioned
c. Negative
d. Positive
13. Food is an example of what type of reinforcer?

a. Unconditioned
b. Conditioned
c. Negative
d. Positive
14. Removing something that increases the future likelihood of behavior is called...

a. Negative punishment  
b. Negative reinforcement  
c. Positive punishment  
d. Positive reinforcement
14. Removing something that increases the future likelihood of behavior is called...

a. Negative punishment  
b. **Negative reinforcement**  
c. Positive punishment  
d. Positive reinforcement