

Principles of Behavior: Reinforcement

Chapter Summary

Key elements in this chapter include the story of Levi who demonstrated multiple episodes of severe challenging behavior including self-injury with the potential to cause permanent damage. Also included are discussions of behavioral laws, the definition of behavior, and an introduction to the work of Dr. B.F. Skinner and applied behavior analysis. Key elements in this chapter also include the presentation of basic terminology and concepts derived from the science of applied behavior analysis. Video vignettes provide illustrations of terminology and examples of concepts in real life every day situations and environments.

Learner Objectives

Students will be able to...

1. Describe the origin of the principles of behavior analysis.
2. Identify the ABCs of behavior.
3. Explain and provide examples of positive and negative reinforcement.
4. Explain the difference between positive and negative reinforcement.
5. Explain and provide examples of punishment.
6. Compare and contrast negative reinforcement and punishment.

Key Terms and Concepts

- Behavior
- Applied behavior analysis
- B.F. Skinner
- Reinforcement
- Positive reinforcement
- Negative reinforcement
- Punishment
- Positive punishment
- Negative punishment
- Antecedents
- Consequences
- ABCs of behavior

Principles of Behavior: Reinforcement Guided Notes

Applied Behavior Analysis

What is Behavior?

- Behavior is what people do and say.
- Behaviors can be observed and measured.
- Behavior impacts the environment.
- Behavior is bound by laws.

B.F. Skinner founded modern behaviorism. He called his approach to behavior: “The experimental analysis of behavior.”

From these experiments, they found variables that strongly affected behavior in organisms. From these variables were formed the first laws of behavior including operant conditioning, reinforcement, and punishment, to name a few. When psychologists applied these laws to solve socially significant problems with people, a new field was born; the field of applied behavior analysis.

Applied Behavior Analysis (ABA) is the application of behavior laws to change socially significant behavior to a meaningful degree.

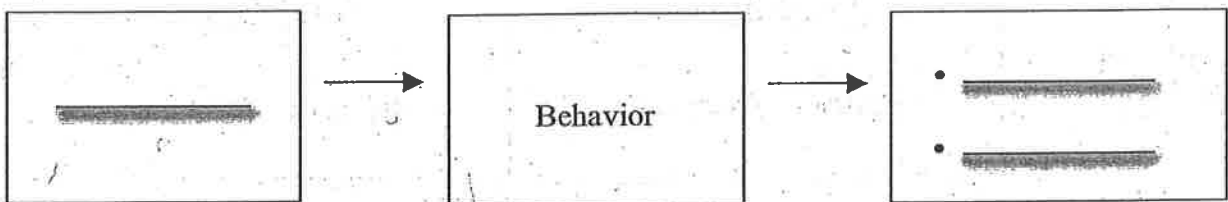
ABA is used to teach skills to many populations such as the following:

- Autism
- Animal training
- Education
- Business
- Health and fitness

Defining characteristics of ABA:

- Focuses on socially significant behavior
- Uses procedures based on principles of behavior
- Emphasizes on analyzing environmental events that relate to the behavior
- Provides specific behavior planning
- Plans are implemented by people in the natural environment
- Measurement is used to document behavior change

Fill in the Blanks



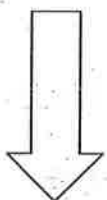
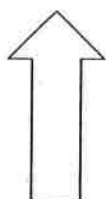
Reinforcement & Punishment

- Reinforcement and Punishment always follows behavior.
- Reinforcement is an event following a behavior, which increases that behavior.
- Punishment is an event following a behavior, which decreases that behavior.

There are different kinds of reinforcement and punishment. There is positive and negative reinforcement, and positive and negative punishment. We can understand these best if we remember that positive means something was added, and negative means something was removed.

+

-



<p>Positive Reinforcement (Addition of a stimulus)</p>	<p>Negative Reinforcement (Removal of a Stimulus)</p>
<p>Positive Punishment (Addition of a stimulus)</p>	<p>Negative Punishment (Removal of a stimulus)</p>

When you are trying to determine what consequence occurred in any given situation, it helps to ask yourself **three questions**.

Is it Reinforcement or Punishment?

- What behavior changed?
- Did the behavior increase or decrease?
- After the behavior occurred, was something added or taken away?

Exercise #1

Mrs. McBee's class was having a discussion. Mary Jo didn't often participate in discussions. When Mary Jo raised her hand, Mrs. McBee called on her and Mary Jo offered her opinion on the subject. Mrs. McBee said, "That's a very good point, thank you for your insightful comment." Mary Jo started participating more in class thereafter.

What behavior changed? _____

Did the behavior increase or decrease? _____

After the behavior occurred, was something added or taken away? _____

Was it Positive or Negative Reinforcement? _____

Exercise #2

Amy and Steve wanted to sleep in Sunday morning. Steve told Amy to lock the door to their room so the kids couldn't come and wake them up in the morning. Amy got up in the middle of the night and left the door unlocked. The next morning, their son came in and woke them up by jumping on the bed. Amy locked the door every night after that, and their restful slumber was not disturbed.

What behavior changed? _____

Did it increase or decrease? _____

Was something added or taken away? _____

What occurred? _____

Positive reinforcement is when an occurrence of behavior is followed by the addition of a reinforcer, which results in increased behavior.

A **reinforcer** is an event that follows a behavior and increases the rate of the behavior.

Exercise #3

Christi had a really bad sunburn. She used aloe lotion to help with the pain. When she applied it, she felt immediate relief. Christi now applies aloe lotion when she has a sunburn.

What behavior changed? _____

Did it increase or decrease? _____

What procedure was used? _____

Was something added or taken away? _____

This is an example of _____

Negative Reinforcement

- Removal of an aversive stimulus that **INCREASES** the rate of a behavior.
- The occurrence of the behavior is followed by the reduction, or termination of, and results in the likelihood of the behavior occurring again.
- The behavior **increases** due to escape and avoidance.

Exercise #4

Dan is sleeping and his alarm goes off. Dan is too tired to get up, so he **avoids** getting out of bed by pushing snooze. Now Dan pushes snooze every time the alarm goes off.

What behavior increased? _____

Was something added or taken away? _____

This is an example of _____

Exercise #5

Jane rarely checks her mail. She checked the mailbox one day and got 2 letters. After that, Jane checked the mailbox every day.

What behavior changed? _____

Did it increase or decrease? _____

Was something added or removed? _____

This is an example of what principle of behavior? _____

Exercise #6

Jason was talking to his neighbors and throwing items during math class. Mrs. Robins pulled him aside and told him to sit in the back of the class, away from his friends. Jason had to sit in the back next to Jennifer, the girl he's had a crush on since first grade. Jason started goofing off in class more often after that.

What behavior increased? _____

Was something added or taken away? _____

The teacher used what procedure? _____

Exercise #7

Pam couldn't study with the TV on, but her roommate always had it on during the time Pam was trying to study. One day Pam shut the door, and she was able to study better. Now Pam shuts the door every time she studies.

What behavior increased? _____

Was something added or taken away? _____

This is an example of what principle of behavior? _____

Principles of Behavior: Behavior Reduction

Chapter Summary

Key elements in this chapter include an overview of the variables that impact reinforcer effectiveness. A mnemonic device acronym (DISC) is incorporated to aid in retention of the illustrated variables of reinforcement. This chapter also includes an introduction to various schedules of reinforcement and provides a more in depth explanation of positive and negative punishment. Examples of the concepts of extinction and extinction bursts are offered along with examples of response cost and time out procedures.

Learner Objectives

Students will be able to...

1. Explain motivating operations and provide examples.
2. Identify and apply variables of reinforcer effectiveness to given scenarios.
3. Define features of and compare and contrast different schedules of reinforcement.
4. Describe and explain the most powerful schedule of reinforcement.
5. Describe and provide examples of extinction and extinction bursts.
6. Identify two types of negative punishment (response cost and time out) and describe features of each.

Key Terms and Concepts

- Motivating operations
- Deprivation
- Immediacy
- Size
- Contingency
- Schedules of reinforcement
- Continuous
- Intermittent
- Ratio
- Interval
- Fixed
- Variable
- Fixed ratio (FR)
- Variable ratio (VR)
- Fixed interval (FI)
- Variable interval (VI)
- Extinction
- Extinction burst
- Punishment
- Positive punishment
- Negative punishment
- Response cost
- Time out

Principles of Behavior: Behavior Reduction Guided Notes

Motivating Operations are variables in the environment that can alter the relative value of a particular reinforcer at a particular time.

Variables of Reinforcer Effectiveness

- Deprivation
- Immediacy
- Size
- Contingency

Schedules of Reinforcement

- Continuous Schedule – learning new behavior
- Intermittent Schedule – maintaining behavior

Intermittent Schedules of Reinforcement

Ratio Schedules are based on the number of responses.

- Fixed ratio schedules
- Variable ratio schedules

Interval Schedules are based on the passage of time.

- Fixed interval
- Variable interval

Extinction and Punishment

The definition of **extinction** is when a response no longer produces reinforcement.

An **Extinction Burst** is when a behavior is no longer reinforced; the behavior will briefly increase in frequency, intensity or duration before it decreases.

Spontaneous Recovery sometimes occurs with extinction procedures. Even though the behavior has not been reinforced, it may occur again with the same frequency and intensity as it once did. If extinction continues to remain in place when this occurs, then behavior will go away again.

Punishment is an event that occurs after a behavior and decreases that behavior.

Exercise:

Stan liked to tell dirty jokes. His friend, Samantha, didn't appreciate them. She usually wouldn't say anything to him. She would just roll her eyes while other's laughed. One day, Samantha had enough. When Stan told a dirty joke that offended her, she asked him to stop telling those kinds of jokes. Stan stopped telling dirty jokes.

What behavior decreased? _____

Was something added or taken away after the behavior? _____

What procedure was used? _____

Negative Punishment is removing a stimulus after the behavior, thus decreasing that behavior. Some commonly used negative reinforcement procedures are timeout from positive reinforcement and response cost.

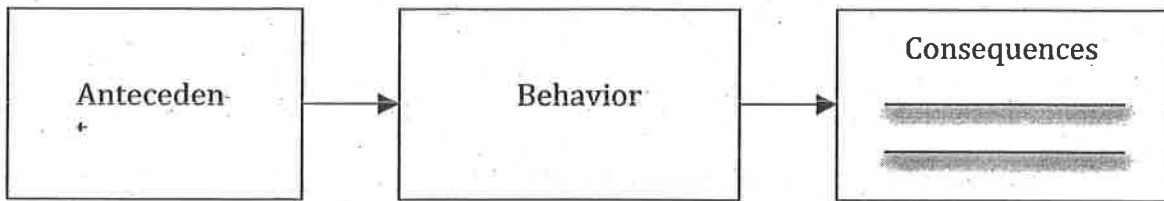
Positive Punishment occurs when an event is added.

To use punishment procedures ethically and appropriately, you will need the supervision of an **experienced behavior analyst**.

Although punishment is effective, it may have **unwanted side effects**. It may evoke emotional reactions such as escape, avoidance, anxiety, and aggression. The person whose behavior is being punished may imitate the punishment procedures on others.

Practice Quiz

- 1) What kind of behavior does ABA focus on? _____
- 2) Fill in the blanks "ABA is the application of _____ to change _____ behavior to a meaningful degree."
- 3) What are the two types of consequences that were studied by Skinner and colleagues?



- 4) Fill in the blank.

Reinforcement _____ behavior

Punishment _____ behavior

- 5) What type of reinforcement maintains escape and avoidant behaviors? _____

- 6) What are the principles of reinforcer effectiveness?

D _____ I _____

S _____ C _____

- 7) What type of schedule of reinforcement has the highest rate of responding? _____

- 8) What is the following a definition of? The behavior decreases or terminates after the response no longer produces reinforcement. _____

9) Name two types of negative punishment. _____

