

Study Guide

9-1

Classical Conditioning

For use with textbook pages 241-248

Key Terms

- classical conditioning** a learning procedure in which associations are made between a natural stimulus and a learned, neutral stimulus (page 241)
- neutral stimulus** a stimulus that does not initially elicit any part of the unconditioned response (page 242)
- unconditioned stimulus (UCS)** a stimulus that elicits a certain predictable response typically without previous training (page 242)
- unconditioned response (UCR)** an organism's automatic reaction to a stimulus (page 242)
- conditioned stimulus (CS)** a once-neutral event that has come to elicit a given response after a period of training in which it has been paired with an unconditioned stimulus (page 242)
- conditioned response (CR)** the learned reaction to a conditioned stimulus (page 242)
- generalization** responding similarly to a range of similar stimuli (page 244)
- discrimination** the ability to respond differently to similar but distinct stimuli (page 244)
- extinction** the gradual disappearance of a conditioned response when the conditioned stimulus is repeatedly presented without the unconditioned stimulus (page 245)

Drawing From Experience

Have you ever reached for your phone after hearing a ring on the television? Do you have a pet that runs to its food dish the minute you walk in the house? This section discusses how classical conditioning affects human and animal behavior.

Organizing Your Thoughts

Use the diagram below to help you take notes as you read the summaries that follow. Think about how a neutral stimulus becomes a conditioned stimulus.

Before Conditioning	During Conditioning	After Conditioning
<p>1. A neutral stimulus results in _____</p>	<p>3. A conditioned stimulus is paired with the _____</p>	<p>5. A conditioned stimulus results in a(n) _____</p>
<p>2. An unconditioned stimulus results in a(n) _____</p>	<p>4. The result is a(n) _____</p>	<p>6. The conditioning will last unless _____ occurs.</p>

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Read to Learn

Introduction (page 241)

What is learning? Learning takes place when a person or an animal has an experience that changes his or her behavior, more or less permanently.

Classical conditioning is a type of learning. When something makes you react in a certain way, it is called a stimulus. During classical conditioning, people and animals learn to respond to a new stimulus the same way that they respond to one they already know.

7. Who was the first person to explain how classical conditioning worked?

Classical Conditioning (page 242)

A stimulus that you respond to without training is called an **unconditioned stimulus (UCS)**. Your response is called an **unconditioned response (UCR)**. A **neutral stimulus** is one that has nothing to do with your response. Ivan Pavlov gave an unconditioned stimulus and a neutral stimulus to a dog at the same time. He discovered that the dog would eventually learn to respond to the neutral stimulus in the same way as it did to the unconditioned stimulus.

If you watch an action movie, you will feel tense at certain times during the movie when the main characters are in danger. If the movie plays the same song every time the characters are in danger, you will eventually feel tense when you hear the music, even if you are not watching the movie. The song is a neutral stimulus. It did not make you feel tense before you saw the movie. After conditioning, the neutral stimulus (the song) is called a **conditioned stimulus (CS)**. Your response is called a **conditioned response (CR)**.

Classical conditioning works gradually. Sometimes you will respond to a neutral stimulus that is similar to the conditioned stimulus. This is called **generalization**. For example, if you are conditioned to feel tense when you hear a certain song, you might feel tense when you hear other songs with a similar beat. If you did, that would be generalization. Eventually, you will learn to tell the difference between a conditioned stimulus and a similar neutral stimulus. This is called **discrimination**. If you learn to feel tense only when you hear the song from the movie, and not when you hear other songs with a similar beat, you have learned discrimination.

Classical conditioning is not always permanent. If the conditioned stimulus and the unconditioned stimulus are not given together for a long time, the

conditioned stimulus stops working. The conditioned response stops. This is called **extinction**. If you were conditioned to feel tense when you heard a song during a movie, but then never watched the movie again, you would eventually stop feeling tense when you heard the song. If the unconditioned stimulus and the conditioned stimulus are again put together, the conditioned response comes back quickly. This is called spontaneous recovery.

8. If you strongly dislike broccoli, green beans, and spinach, what is your reaction likely to be if you are served green peas? Which process of classical conditioning would you be using?

Classical Conditioning and Human Behavior (page 246)

A person can be conditioned on purpose or by accident. To stop children from wetting the bed, parents can use a device called a bell and pad. The pad is put on the bed and wired to a bell. When the child starts to wet the bed, the pad gets wet causing the bell to ring. The child wakes up and uses the bathroom. The bell is an unconditioned stimulus. A child will always respond to it. By ringing the bell when the child's bladder is full, the child learns to wake up when he or she needs to go to the bathroom. The full bladder becomes a conditioned stimulus.

A taste aversion is an example of accidental classical conditioning. Suppose you eat snails for the first time. Later in the evening, you feel sick. You will probably think the snails made you sick and you will not like the smell or thought of them the next time someone serves them.

9. If you develop a taste aversion, what can you do to overcome it?

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