

12 Pavlov's Bewitched Dogs

Week 11

Is behavior learned? Psychologists have discussed this question for years. They began thinking about it because of the work of Ivan Pavlov. He was a Russian professor of physiology. Here is his story.

In carefully controlled experiments, Pavlov showed that dogs could be taught to salivate. Critics said the dogs were bewitched. And Pavlov was probably as surprised as his critics. But the evidence was there.

The discovery was accidental. Pavlov was doing research on digestion and on the central nervous system. For his research, he collected saliva from the animals in his laboratory. To get the saliva, he had an experimenter put meat powder in the laboratory dogs' mouths. The meat powder was a stimulus to get the dogs' mouths to water. Soon he noticed that the dogs' mouths watered even before they got the meat powder. In fact, their mouths began to water at the sight of the experimenter. The experimenter had become the stimulus!

Pavlov wondered if other stimuli could get the dogs to salivate. He paired the meat powder with the sound of a tuning fork, the turning on of a light, and the ringing of a bell. He got the same results. An automatic physical response, called a *reflex*, is one of the most basic actions animals perform. Sneezing in a dusty place and shivering in the cold are reflex actions. But Pavlov's experiments showed that reflexes could be taught. This led the way to further thinking on whether behavior is natural or learned.

It may not sound so incredible today, but at the turn of the 20th century Pavlov's research seemed remarkable. It brought about new research methods and ideas. Pavlov continued his work on the nervous system of the dog. He experimented with different stimuli. His work became the basis for much of modern psychology.

Main Idea

	Answer	Score
1 _____		
Mark the <i>main idea</i>	<input type="checkbox"/> M	<u>15</u>
Mark the statement that is <i>too broad</i>	<input type="checkbox"/> B	<u>5</u>
Mark the statement that is <i>too narrow</i>	<input type="checkbox"/> N	<u>5</u>

- a. Ivan Pavlov was a Russian scientist. _____
- b. Pavlov's dogs salivated to such stimuli as bells and lights. _____
- c. Pavlov's experiments led to important psychological findings. _____

- Subject Matter** 2 This passage is mostly about
- a. experiments with different kinds of dogs.
 - b. the meaning of *salivate*.
 - c. how Ivan Pavlov's work with stimuli changed ideas about behavior.
 - d. the life of Ivan Pavlov. _____

- Supporting Details** 3 Pavlov's dogs responded to
- a. newspapers.
 - b. the sound of a bell.
 - c. forks, knives, and spoons.
 - d. saliva. _____

- Conclusion** 4 From this passage it is reasonable to conclude that
- a. bells should be rung at meal times.
 - b. Pavlov enjoyed being a famous person.
 - c. dogs can be taught to do anything.
 - d. Pavlov became more interested in dogs' brains than in their digestion. _____

- Clarifying Devices** 5 People said the dogs were bewitched because
- a. Pavlov seemed like an evil wizard.
 - b. the dogs were salivating without a direct stimulus.
 - c. the dogs performed in a circus sideshow.
 - d. the dogs never slept after Pavlov's experiment. _____

- Vocabulary in Context** 6 The word incredible means
- a. unpleasant.
 - b. new.
 - c. confusing.
 - d. unbelievable. _____