

STUDY GUIDE

6: Learning

UNIT OVERVIEW

"No topic is closer to the heart of psychology than learning, a relatively permanent change in an organism's behavior due to experience." Unit 6 covers the basic principles of three forms of learning: classical, or respondent, conditioning, in which we learn associations between events; operant conditioning, in which we learn to engage in behaviors that are rewarded and to avoid behaviors that are punished; and observational learning, in which we learn by observing and imitating others.

The chapter also covers several important issues, including the generality of principles of learning, the role of cognitive processes in learning, and the ways in which learning is constrained by the biological predispositions of different species.

UNIT REVIEW

First, skim each section, noting headings and boldface items. After you have read the section, review each objective by answering the fill-in and essay-type questions that follow it. As you proceed, evaluate your performance by consulting the answers. Do not continue with the next section until you understand each answer. If you need to, review or reread the section in the textbook before continuing.

Introduction and How Do We Learn? (pp.215-217)

Objective 1: Define learning, and identify two forms of learning.

1. A relatively permanent change in an organism's behavior due to experience is called _____ .
2. More than 200 years ago, philosophers such as John Locke and David Hume argued that an important factor in learning is our tendency to _____ events that occur in sequence. Even simple animals, such as the sea slug *Aplysia*, can learn simple _____ between stimuli. This type of learning is called _____ . When the stimulus occurs repeatedly, the response diminishes. We say the organism _____ .
3. The type of learning in which the organism learns to associate two stimuli is _____ conditioning.
4. The tendency of organisms to associate a response and its consequence forms the basis of _____ conditioning.
5. Complex animals often learn behaviors merely by _____ others perform them.

Classical Conditioning (pp. 218-228)

Objective 2: Define classical conditioning and behaviorism, and describe the basic components of classical conditioning.

1. Classical conditioning was first explored by the Russian physiologist _____ . Early in the twentieth century, psychologist _____ urged psychologists to discard references to mental concepts in favor of studying observable behavior. This view, called _____ , influenced American psychology during the first half of that century.
2. In Pavlov's classic experiment, a tone, or _____ is sounded just before food, the _____ is placed in the animal's mouth.
3. An animal will salivate when food is placed in its mouth. This salivation is called the _____ .
4. Eventually, the dogs in Pavlov's experiment would salivate on hearing the tone. This salivation is called the _____ .

Objective 3: Summarize the processes and adaptive value of acquisition, higher-order conditioning, extinction, spontaneous recovery, generalization, and discrimination.

5. The initial learning of a conditioned response is called _____. For many conditioning situations, the optimal interval between a neutral stimulus and the US is _____.

6. When the US is presented prior to a neutral stimulus, conditioning (does / does not) occur.

Explain why learning theorists consider classically conditioned behaviors to be biologically adaptive.

7. Michael Domjan's sexual conditioning studies with quail demonstrate that classical conditioning is highly adaptive because it helps animals _____ and _____.

8. The procedure in which an established conditioned stimulus is paired with a different _____ stimulus, thereby establishing the latter as a _____ stimulus, is called _____. Associations that are not consciously noticed (can/ cannot) influence attitudes.

9. If a CS is repeatedly presented without the US, _____ soon occurs; that is, the CR diminishes.

10. Following a rest, however, the CR reappears in response to the CS; this phenomenon is called _____.

11. Subjects often respond to a similar stimulus as they would to the original CS. This phenomenon is called _____.

12. Humans and other animals can also be trained not to respond to _____ stimuli. This learned ability is called _____. Being able to recognize differences among stimuli has _____ value because it lets us limit our learned responses to appropriate stimuli.

Objective 4: Discuss the importance of cognitive processes and biological predispositions in classical conditioning.

13. The early behaviorists believed that to understand behavior in various organisms, any presumption of _____ was unnecessary.

14. Experiments by Robert Rescorla and Allan Wagner demonstrate that a CS must reliably _____ the US for an association to develop and, more generally, that _____ processes play a role in conditioning. It is as if the animal learns to _____ that the US will occur.

15. Researcher Martin Seligman found that dogs strapped in a harness and given repeated shocks, with no opportunity to avoid them, learned a sense of _____. When they could escape the shocks, they (did/did not). This passive resignation is called _____.

16. The importance of cognitive processes in human conditioning is demonstrated by the failure of classical conditioning as a treatment for _____.

17. Some psychologists once believed that any natural _____ could be conditioned to any neutral _____.

18. John Garcia discovered that rats would associate _____ with taste but not with other stimuli. Garcia found that taste-aversion conditioning (would/would not) occur when the delay between the CS and the US was more

19. Results such as these demonstrate that the principles of learning are constrained by the _____ predispositions of each animal species and that they help each species _____ to its environment. They also demonstrate the importance of different _____ in understanding complex phenomena.

Objective 5: Summarize Pavlov's contribution to our understanding of learning and to improvements in human health and well-being.

20. Classical conditioning is one way that virtually all organisms learn to _____ to their environment.

21. Another aspect of Pavlov's legacy is that he showed how a process such as learning could be studied _____ .

Explain why the study of classical conditioning is important.

22. Through classical conditioning, drug users often feel _____ a when they are in the _____ associated with previous highs.

23. Research studies demonstrate that the body's immune system (can/cannot) be classically conditioned,. Describe the experiment by John Watson and Rosalie Rayner.

Operant Conditioning (pp. 218-242)

Objective 6: Identify the two major characteristics that distinguish classical conditioning from operant conditioning.

1. Classical conditioning associates _____ stimuli with stimuli that trigger responses that are _____. Thus, in this form of conditioning, the organism (does/does not) control the responses.
2. The reflexive responses of classical conditioning involve _____ behavior.
3. In contrast, behavior that is more spontaneous and that is influenced by its consequences is called _____ behavior.

Objective 7: Describe the process of operant conditioning, including the shaping procedure.

4. B. F. Skinner used Thorndike's _____ as a starting point in developing a behavioral technology. This principle states that _____ behavior is likely to _____ .
5. Skinner designed an apparatus, called the _____ ,to investigate learning in animals.
6. The procedure in which a person teaches an animal to perform an intricate behavior by building up to it in small steps is called _____. This method involves reinforcing successive _____ of the desired behavior.
7. In experiments to determine what an animal can perceive, researchers have found that animals are capable of forming _____ and _____ between stimuli. Similar experiments have been conducted with

8. A situation, event, or signal that a certain response will be reinforced is a _____
_____.

Objective 8: Identify the different types of reinforcers, and describe the major schedules of reinforcement.

9. An event that increases the frequency of a preceding response is a _____.

10. A stimulus that strengthens a response by presenting a typically pleasurable stimulus after a response is a
_____.

11. A stimulus that strengthens a response by reducing or removing an aversive (unpleasant) stimulus is a
_____.

12. Reinforcers, such as food and shock, that are related to basic needs and therefore do not rely on learning are called
_____. Reinforcers that must be conditioned and therefore derive their power
through association are called _____.

13. Children who are able to delay gratification tend to become (more/less) socially competent and high achieving as they
mature.

14. Immediate reinforcement (is/is not) more effective than its alternative, _____ reinforcement. This explains in part
the difficulty that gamblers have in quitting playing the slot machines.

15. The procedure involving reinforcement of each and every response is called _____
_____. Under these conditions, learning is (rapid/slow). When this type of reinforcement is
discontinued, extinction is (rapid/slow).

16. The procedure in which responses are reinforced only part of the time is called _____ reinforcement.
Under these conditions, learning is generally (faster/slower) than it is with continuous reinforcement. Behavior
reinforced in this manner is (very/not very) resistant to extinction.

17. When behavior is reinforced after a set number of responses, a _____ - _____
schedule is in effect.

18. Three-year-old Yusef knows that if he cries when he wants a treat, his mother will sometimes give in. When, as in this
case, reinforcement occurs after an unpredictable number of responses, a _____ -
_____ schedule is being used.

19. Reinforcement of the first response after a set interval of time defines the _____ -
_____ schedule. An example of this schedule is

20. When the first response after varying amounts of time is reinforced, a _____ - _____
schedule is in effect.

Describe the typical patterns of response under fixed-interval, fixed-ratio, variable-interval, and variable-ratio schedules of
reinforcement.

Objective 9: Discuss how punishment and negative reinforcement differ, and list some drawbacks of punishment as a behavior-control technique.

21. An aversive consequence that decreases the likelihood of the behavior that preceded it is called _____ .
If an aversive stimulus is administered, it is called _____ . If a desirable stimulus is withdrawn, it is called _____ .
22. Because punished behavior is merely _____ , it may reappear. Also, punishment teaches _____ , that behavior that is unacceptable in one context may be acceptable in another.
23. Punishment can also lead to _____ and a sense of helplessness, as well as to the association of the aversive event with _____ .
24. Punishment also often increases _____ and does not guide the individual toward more desirable behavior.

Objective 10: Explain the importance of cognitive processes and biological predispositions in operant conditioning.

25. Skinner and other behaviorists resisted the growing belief that expectations, perceptions, and other _____ processes have a valid place in the science of psychology.
26. When a well-learned route in a maze is blocked, rats sometimes choose an alternative route, acting as if they were consulting a _____ . During their explorations, the rats may have experienced _____ , learning that becomes apparent only when there is some incentive to demonstrate it.
27. Some learning occurs after little or no interaction with our environment. Our sudden solution to a problem may reflect a flash of _____ .
28. Excessive rewards may undermine _____ , which is the desire to perform a behavior for its own sake. The motivation to seek external rewards and avoid punishment is called _____ .
29. Operant conditioning (is/is not) constrained by an animal's biological predispositions.
30. For instance, with animals it is difficult to use food as a _____ to _____ behaviors that are not naturally associated with _____ .
31. Biological constraints predispose organisms to learn associations that are naturally _____ . When animals revert to their biologically predisposed patterns, they are exhibiting what is called _____ .

Objective 11: Describe the controversy over Skinner's views of human behavior, and identify some ways to apply operant conditioning principles at school, in sports, at work, and at home.

32. Skinner's views were controversial because he insisted that _____ influences, rather than _____ and _____ shape behavior.
33. Skinner also advocated the use of _____ principles to influence people in ways that promote more desirable _____ .
34. Skinner's critics argued that he _____ people by neglecting their personal _____ and by seeking to _____ their actions.

35. The use of teaching machines and programmed textbooks was an early application of the operant conditioning procedure of _____ to education. Online _____ systems, software that is _____, and _____-based learning are newer examples of this application of operant principles. Reinforcement principles can also be used to enhance _____ abilities by shaping successive approximations of new skills.
36. In boosting productivity in the workplace, positive reinforcement is (more/less) effective when applied to specific behaviors than when given to reward general merit and when the desired performance is well defined and _____. For such behaviors, immediate reinforcement is (more/no more) effective than delayed reinforcement.
37. In using operant conditioning to change your own behavior, you would follow these four steps
- a.
 - b.
 - c.
 - d.
38. A system for recording a physiological response and providing information concerning it is called _____. The instrument used in this system was supposed to provide the individual with a means of _____ a particular physiological response, but it seems to work best on _____.

Objective 12: Identify the major similarities and differences between classical and operant conditioning.

39. Classical conditioning and operant conditioning are both forms of _____.
40. Both types of conditioning involve similar processes of _____, _____, _____, _____, and _____.
41. Classical and operant conditioning are both subject to the influences of _____ processes and _____ predispositions.
42. Through classical conditioning, an organism associates different _____ that it does not _____ and responds _____.
43. Through operant conditioning, an organism associates its _____ with their _____.

Learning by Observation (pp. 242-249)

Objective 13: Describe the process of observational learning, and Bandura's findings on what determines whether we will imitate a model.

1. Learning by observing and imitating others is called _____, or _____. This form of learning (occurs/ does not occur) in species other than our own.
2. Neuroscientists have found _____ neurons in the brain's _____ lobe that provide a neural basis for _____ learning. These neurons have been observed to fire when monkeys perform a simple task and when they _____. This type of neuron (has/has not) been found in human brains.

3. By age _____, infants will imitate novel gestures. By age _____ they will imitate acts modeled on TV. Mirror neurons help give rise to children's _____ and their _____.
4. The psychologist best known for research on observational learning is _____.
5. In one experiment, the child who viewed an adult punch an inflatable doll played more/less) aggressively than the child who had not observed the adult.
6. Bandura believes people imitate a model because of _____ and _____, those received by the model as well as by imitators.
7. We are especially likely to imitate people we perceive as _____ to ourselves, as _____, or as _____.

Objective 14: Discuss the impact of prosocial modeling and the relationship between watching violent TV and antisocial behavior.

8. Children will also model positive, or _____, behaviors. Models are also most effective when their words and actions are _____.
9. Modeling may also have _____ effects. This fact may help explain why _____ parents might have _____ children. However, _____ factors may also be involved.
10. Children in developed countries spend more time _____ than they spend in school.
11. Compared with the real world, television depicts a much higher percentage of crimes as being _____ in nature.
12. Correlational studies (link/do not link) watching television violence with violent behavior.
13. Correlation does not prove _____. Most researchers believe that watching violence on television (does/does not) lead to aggressive behavior.
14. The violence-viewing effect stems from several factors, including _____ of observed aggression and the tendency of prolonged exposure to violence to _____ viewers.

PROGRESS TEST 1

Multiple-Choice Questions

Circle your answers to the following questions and check them with the answers. If your answer is incorrect, read the explanation for why it is incorrect and then consult the appropriate pages of the text (in parentheses following the correct answer).

1. Learning is best defined as
 - a. any behavior produced by an organism without being provoked.
 - b. a change in the behavior of an organism.
 - c. a relatively permanent change in the behavior of an organism due to experience.
 - d. behavior based on operant rather than respondent conditioning.
2. The type of learning associated with Skinner is
 - a. classical conditioning.
 - b. operant conditioning.
 - c. respondent conditioning.
 - d. observational learning.
3.
 - a. CS.
 - b. CR.
 - c. US.
 - d. UR.
4. In Pavlov's original experiment with dogs, the tone was initially a(n) ___ stimulus; after it was paired with meat, it became a(n) ___ stimulus.
 - a. conditioned; neutral
 - b. neutral; conditioned
 - c. conditioned; unconditioned
 - d. unconditioned; conditioned

5. To obtain a reward, a monkey learns to press a lever when a 1000-Hz tone is on but not when a 1200-Hz tone is on. What kind of training is this?
 - a. extinction
 - b. generalization
 - c. classical conditioning
 - d. discrimination
6. Which of the following statements concerning reinforcement is correct?
 - a. Learning is most rapid with intermittent reinforcement, but continuous reinforcement produces the greatest resistance to extinction.
 - b. Learning is most rapid with continuous reinforcement, but intermittent reinforcement produces the greatest resistance to extinction.
 - c. Learning is fastest and resistance to extinction is greatest after continuous reinforcement.
 - d. Learning is fastest and resistance to extinction is greatest following intermittent reinforcement.
7. Martin Seligman has found that humans and animals who are exposed to aversive events they cannot escape may develop
 - a. mirror neurons.
 - b. a cognitive map.
 - c. learned helplessness.
 - d. an unconditioned response.
8. The highest and most consistent rate of response is produced by a schedule.
 - a. fixed-ratio
 - b. variable-ratio
 - c. fixed-interval
 - d. variable-interval
9. A response that leads to the removal of an unpleasant stimulus is one being
 - a. positively reinforced.
 - b. negatively reinforced.
 - c. punished.
 - d. extinguished.
10. When a conditioned stimulus is presented without an accompanying unconditioned stimulus, ___ will soon take place.
 - a. generalization
 - b. discrimination
 - c. extinction
 - d. aversion
11. One difference between classical and operant conditioning is that
 - a. in classical conditioning, the responses operate on the environment to produce rewarding or punishing stimuli.
 - b. in operant conditioning, the responses are triggered by preceding stimuli.
 - c. in classical conditioning, the responses are automatically triggered by stimuli.
 - d. in operant conditioning, the responses are reflexive.
12. In Garcia and Koening's studies of taste-aversion learning, rats learned to associate
 - a. taste with electric shock.
 - b. sights and sounds with sickness.
 - c. taste with sickness.
 - d. taste and sounds with electric shock.
13. In Pavlov's original experiment with dogs, salivation to meat was the
 - a. CS.
 - b. CR.
 - c. US.
 - d. UR.
14. Learning by imitating others' behaviors is called ___ learning. The researcher best known for studying this type of learning is ___.
 - a. secondary; Skinner
 - b. observational; Bandura
 - c. secondary; Pavlov
 - d. observational; Watson
15. Punishment is a controversial way of controlling behavior because
 - a. the behavior is forgotten.
 - b. punishing stimuli often create fear.
 - c. punishment often decreases aggressiveness.
 - d. punishment prevents the child from learning discrimination.
16. Classical conditioning experiments by Robert Rescorla and Allan Wagner demonstrate that an important factor in conditioning is
 - a. the research participant's age.
 - b. the strength of the stimuli.
 - c. the predictability of an association.
 - d. the similarity of stimuli.
17. Which of the following is an example of reinforcement?
 - a. presenting a positive stimulus after a response
 - b. removing an unpleasant stimulus after a response
 - c. being told that you have done a good job
 - d. All of these are examples.
18. When a sea slug is disturbed by a squirt of water, it protectively withdraws its gill. If the squirts continue, the withdrawal response diminishes. This illustrates
 - a. discrimination.
 - b. spontaneous recovery.
 - c. habituation.
 - d. shaping.
19. For the most rapid conditioning, a CS should be presented
 - a. about 1 second after the US.
 - b. about one-half second before the US.
 - c. about 15 seconds before the US.
 - d. at the same time as the US.
20. Mirror neurons are found in the brain's ___ and are believed to be the neural basis for
 - a. frontal lobe; observational learning
 - b. frontal lobe; classical conditioning
 - c. temporal lobe; operant conditioning
 - d. temporal lobe; observational learning

Matching Items

Match each definition or description with the appropriate term.

Definitions or Descriptions

- ___ 1. presentation of a desired stimulus
- ___ 2. tendency for similar stimuli to evoke a CR
- ___ 3. removal of an aversive stimulus
- ___ 4. an innately reinforcing stimulus
- ___ 5. an acquired reinforcer
- ___ 6. responses are reinforced after an unpredictable amount of time
- ___ 7. the motivation to perform a behavior for its own sake
- ___ 8. reinforcing closer and closer approximations of a behavior
- ___ 9. the reappearance of a weakened CR
- ___ 10. a sudden and often novel realization of the solution to a problem
- ___ 11. presentation of an aversive stimulus
- ___ 12. learning that becomes apparent only after reinforcement is provided
- ___ 13. each and every response is reinforced
- ___ 14. a desire to perform a behavior due to promised rewards

Terms

- a. shaping
- b. punishment
- c. spontaneous recovery
- d. latent learning
- e. positive reinforcement
- f. negative reinforcement
- g. primary reinforcer
- h. generalization
- i. conditioned reinforcer
- j. continuous reinforcement
- k. variable-interval schedule
- l. extrinsic motivation
- m. intrinsic motivation
- n. insight

PROGRESS TEST 2

Progress Test 2 should be completed during a final unit review. Answer the following questions after you thoroughly understand the correct answers for the section reviews and Progress Test 1.

Multiple-Choice Questions

1. During extinction, the ___ is omitted; as a result, the seems to disappear.
 - a. US; UR
 - c. US; CR
 - b. CS; CR
 - d. CS; UR
2. In the experiment by John Watson and Rosalie Rayner, the loud noise was the ___ and the white rat was the
 - a. CS;CR
 - c. CS;US
 - b. US;CS
 - d. US;CR
3. In which of the following may classical conditioning play a role?
 - a. emotional problems
 - b. the body's immune response
 - c. helping drug addicts
 - d. in all of these cases
4. Shaping is a(n) ___ technique for _____ a behavior.
 - a. operant; establishing
 - b. operant; suppressing
 - c. respondent; establishing
 - d. respondent; suppressing
5. In Pavlov's studies of classical conditioning of a dog's salivary responses, spontaneous recovery occurred
 - a. during acquisition, when the CS was first paired with the US.
 - b. during extinction, when the CS was first presented by itself.
 - c. when the CS was reintroduced following extinction of the CR and a rest period.
 - d. during discrimination training, when several conditioned stimuli were introduced.
6. For operant conditioning to be most effective, when should the reinforcers be presented in relation to the desired response?
 - a. immediately before
 - b. immediately after
 - c. at the same time as
 - d. at least a half hour before

7. In distinguishing between negative reinforcers and punishment, we note that
 - a. punishment, but not negative reinforcement, involves use of an aversive stimulus.
 - b. in contrast to punishment, negative reinforcement decreases the likelihood of a response by the presentation of an aversive stimulus.
 - c. in contrast to punishment, negative reinforcement increases the likelihood of a response by the presentation of an aversive stimulus.
 - d. in contrast to punishment, negative reinforcement increases the likelihood of a response by the termination of an aversive stimulus.
8. The "piecework," or commission, method of payment is an example of which reinforcement schedule?
 - a. fixed-interval
 - c. fixed-ratio
 - b. variable-interval
 - d. variable-ratio
9. Putting on your coat when it is cold outside is a behavior that is maintained by
 - a. discrimination learning.
 - b. punishment.
 - c. negative reinforcement.
 - d. classical conditioning.
10. On an intermittent reinforcement schedule, reinforcement is given
 - a. in very small amounts.
 - b. randomly.
 - c. for successive approximations of a desired behavior.
 - d. only some of the time.
11. You teach your dog to fetch the paper by giving him a cookie each time he does so. This is an example of
 - a. operant conditioning.
 - b. classical conditioning.
 - c. conditioned reinforcement.
 - d. partial reinforcement.
12. In promoting observational learning, the most effective models are those that we perceive as
 - a. similar to ourselves.
 - b. older than us.
 - c. authoritative.
 - d. attractive.
13. A cognitive map is a
 - a. mental representation of one's environment.
 - b. sequence of thought processes leading from one idea to another.
 - c. set of instructions detailing the most effective means of teaching a particular concept.
 - d. biological predisposition to learn a particular skill.
14. After exploring a complicated maze for several days, a rat subsequently ran the maze with very few errors when food was placed in the goal box for the first time. This performance illustrates
 - a. classical conditioning.
 - b. discrimination learning.
 - c. observational learning.
 - d. latent learning.
15. Leon's psychology teacher has scheduled a test every third week of the term. Leon will probably study the most just before a test and the least just after a test. This is because the schedule of tests is reinforcing studying according to which schedule?
 - a. fixed-ratio
 - c. fixed-interval
 - b. variable-ratio
 - d. variable-interval
16. Operant conditioning is to ___ as classical conditioning is to ___
 - a. Ivan Pavlov; John Watson
 - b. B. F. Skinner; Albert Bandura
 - c. Ivan Pavlov; B. F. Skinner
 - d. B. F. Skinner; Ivan Pavlov
17. Online testing systems and interactive software are applications of the operant conditioning principles of
 - a. shaping and immediate reinforcement.
 - b. immediate reinforcement and punishment.
 - c. shaping and primary reinforcement.
 - d. continuous reinforcement and punishment.
18. Which of the following is the best example of a conditioned reinforcer?
 - a. putting on a coat on a cold day
 - b. relief from pain after the dentist stops drilling your teeth
 - c. receiving a cool drink after washing your mother's car on a hot day
 - d. receiving an approving nod from the boss for a job well done
19. Experiments on taste-aversion learning demonstrate that
 - a. for the conditioning of certain stimuli, the US need not immediately follow the CS.
 - b. any perceivable stimulus can become a CS.
 - c. all animals are biologically primed to associate illness with the taste of a tainted food.
 - d. for learning to occur, the US must precede the CS.
20. Regarding the impact of watching television violence on children, most researchers believe that
 - a. aggressive children simply prefer violent programs.
 - b. television simply reflects, rather than contributes to, violent social trends.
 - c. watching violence on television leads to aggressive behavior.
 - d. there is only a weak correlation between exposure to violence and aggressive behavior.

True-False Items

Indicate whether each statement is true or false by placing T or F in the blank next to the item.

- _____ 1. Operant conditioning involves behavior that is primarily reflexive.

- _____ 3. Negative reinforcement decreases the likelihood that a response will recur.
- _____ 4. The learning of a new behavior proceeds most rapidly with continuous reinforcement.
- _____ 5. As a rule, variable schedules of reinforcement produce more consistent rates of responding than fixed schedules.
- _____ 6. Cognitive processes are of relatively little importance in learning.
- _____ 7. Although punishment may be effective in suppressing behavior, it can have several undesirable side effects.
- _____ 8. All animals, including rats and birds, are biologically predisposed to associate taste cues with sickness.
- _____ 9. Whether the CS or US is presented first seems not to matter in terms of the ease of classical conditioning.
- _____ 10. Spontaneous recovery refers to the tendency of extinguished behaviors to reappear suddenly.
- _____ 11. Researchers have discovered brain neurons that fire when a person performs a task or when another person is observed performing the same task.
- _____ 12. An organism's response to a stimulus increases the more often the organism is exposed to that stimulus.
- _____ 13. A discriminative stimulus signals that a response will be reinforced.

PSYCHOLOGY APPLIED

Answer these questions the day before a test as a final check on your understanding of the unit's terms and concepts.

Multiple-Choice Questions

1. You always rattle the box of dog biscuits before giving your dog a treat. As you do so, your dog salivates. Rattling the box is a ____; your dog's salivation is a ____
 - a. CS; CR
 - c. US; CR
 - b. CS; UR
 - d. US; UR
 2. You are expecting an important letter in the mail. As the regular delivery time approaches you glance more and more frequently out the window, searching for the letter carrier. Your behavior in this situation typifies that associated with which schedule of reinforcement?
 - a. fixed-ratio
 - c. fixed-interval
 - b. variable-ratio
 - d. variable-interval
 3. Jack finally takes out the garbage in order to get his father to stop pestering him. Jack's behavior is being influenced by
 - a. positive reinforcement.
 - b. negative reinforcement.
 - c. a primary reinforcer.
 - d. punishment.
 4. Mrs. Ramirez often tells her children that it is important to buckle their seat belts while riding in the car, but she rarely does so herself. Her children will probably learn to
 - a. use their seat belts and tell others it is important to do so.
 - b. use their seat belts but not tell others it is important to do so.
 - c. tell others it is important to use seat belts but rarely use them themselves.
 - d. neither tell others that seat belts are important nor use them.
 5. A pigeon can easily be taught to flap its wings to avoid shock
 - a. if the shock is delivered before the wings are flapped.
 - b. if the shock is delivered after the wings are flapped.
 - c. if the shock is delivered at the same time as the wings are flapped.
 - d. if the shock is delivered at a random time.
 6. A rat is trained to press a lever to receive a food pellet. The rat is most likely to press the lever
 - a. after a long period of time.
 - b. after a short period of time.
 - c. after a long period of time if the lever is pressed frequently.
 - d. after a short period of time if the lever is pressed frequently.
 7. Pigeons are biologically predisposed to flap their wings to escape aversive events and to use their beaks to obtain food.
 - a. pigeons are biologically predisposed to flap their wings to escape aversive events and to use their beaks to obtain food.
 - b. shock is a more motivating stimulus for birds than food is.
 - c. hungry animals have difficulty delaying their eating long enough to learn any new skill.
 - d. an extinguished response will usually recover after a couple of days.
 8. From a casino owner's viewpoint, which of the following jackpot-payout schedules would be the most desirable for reinforcing customer use of a slot machine?
 - a. variable-ratio
 - c. variable-interval
 - b. fixed-ratio
 - d. fixed-interval
 9. After discovering that her usual route home was closed due to road repairs, Sharetta used her knowledge of the city and sense of direction to find an alternate route. This is an example of
 - a. latent learning.
 - b. observational learning.
 - c. shaping.
 - d. using a cognitive map.
- For questions 8-11, use the following information. As a child, you were playing in the yard one day when a neighbor's cat wandered over. Your mother (who has a terrible fear of animals) screamed and snatched you into her arms. Her behavior caused you to cry. You now have a fear of cats.
8. Identify the CS.
 - a. your mother's behavior
 - b. your crying
 - c. the cat
 - d. your fear today

9. Identify the US.
- your mother's behavior
 - your crying
 - the cat
 - your fear today
10. Identify the CR.
- your mother's behavior
 - your crying
 - the cat
 - your fear today
11. Identify the UR.
- your mother's behavior
 - your crying
 - the cat
 - your fear today
12. The manager of a manufacturing plant wishes to use positive reinforcement to increase the productivity of workers. Which of the following procedures would probably be the most effective?
- Deserving employees are given a general merit bonus at the end of each fiscal year.
 - A productivity goal that seems attainable, yet is unrealistic, is set for each employee.
 - Employees are given immediate bonuses for specific behaviors related to productivity.
 - Employees who fail to meet standards of productivity receive pay cuts.
13. Bill once had a blue car that was in the shop more than it was out. Since then he will not even consider owning blue-or green-colored cars. Bill's aversion to green cars is an example of
- discrimination.
 - generalization.
 - latent learning.
 - extinction.
14. After watching coverage of the Olympics on television recently, Lynn and Susan have been staging their own "summer games." Which of the following best accounts for their behavior?
- classical conditioning
 - latent learning
 - observational learning
 - shaping
15. Two groups of rats receive classical conditioning trials in which a tone and electric shock are presented. For Group 1 the electric shock always follows the tone. For Group 2 the tone and shock occur randomly. Which of the following is likely to result?
- The tone will become a CS for Group 1 but not for Group 2.
 - The tone will become a CS for Group 2 but not for Group 1.
 - The tone will become a CS for both groups.
 - The tone will not become a CS for either group.
16. Last evening May-ling ate her first cheeseburger and French fries at an American fast-food restaurant. A few hours later she became ill. It can be expected that
- May-ling will develop an aversion to the sight of a cheeseburger and French fries.
 - May-ling will develop an aversion to the taste of a cheeseburger and French fries.
 - May-ling will not associate her illness with the food she ate.
 - May-ling will associate her sickness with something she experienced immediately before she became ill.
17. Reggie's mother tells him that he can watch TV after he cleans his room. Evidently, Reggie's mother is attempting to use ___ to increase room cleaning.
- operant conditioning
 - secondary reinforcement
 - positive reinforcement
 - all of these procedures
18. Which of the following is an example of shaping?
- A dog learns to salivate at the sight of a box of dog biscuits.
 - A new driver learns to stop at an intersection when the light changes to red.
 - A parrot is rewarded first for making any sound, then for making a sound similar to "Laura," and then for "speaking" its owner's name.
 - A psychology student reinforces a laboratory rat only occasionally, to make its behavior more resistant to extinction.
19. Lars, a shoe salesman, is paid every two weeks, whereas Tom receives a commission for each pair of shoes he sells. Evidently, Lars is paid on a ___ schedule of reinforcement, and Tom on a schedule of reinforcement.
- fixed-ratio; fixed-interval
 - continuous; intermittent
 - fixed-interval; fixed-ratio
 - variable-interval; variable-ratio
20. Nancy decided to take introductory psychology because she has always been interested in human behavior. Jack enrolled in the same course because he thought it would be easy. Nancy's behavior was motivated by ___, Jack's by ___.
- extrinsic motivation; intrinsic motivation
 - intrinsic motivation; extrinsic motivation
 - drives; incentives
 - incentives; drives

Essay Question

Describe the best way for a pet owner to condition her dog to roll over. (Use the space below to list the points you want to make, and organize them. Then write the essay on a separate piece of paper.)

KEY TERMS

Using your own words, on a piece of paper write a brief definition or explanation of each of the following terms.

1. learning
2. habituation
3. associative learning
4. classical conditioning
5. behaviorism
6. unconditioned response (UR)
7. unconditioned stimulus (US)
8. conditioned response (CR)
9. conditioned stimulus (CS)
10. acquisition
11. higher-order conditioning
12. extinction
13. spontaneous recovery
14. generalization
15. discrimination
16. learned helplessness
17. respondent behavior
18. operant conditioning
19. operant behavior
20. law of effect
21. operant chamber (Skinner box)
22. shaping
23. discriminative stimulus
24. reinforcer
25. positive reinforcement
26. negative reinforcement
27. primary reinforcers
28. conditioned reinforcers
29. continuous reinforcement
30. partial (intermittent) reinforcement
31. fixed-ratio schedule
32. variable-ratio schedule
33. fixed-interval schedule
34. variable-interval schedule

36. cognitive map
37. latent learning
38. insight
39. intrinsic motivation
40. extrinsic motivation
41. biofeedback
42. observational learning
43. modeling
44. mirror neurons
45. prosocial behavior

