Test Bank for Learning and Behavior 2nd Edition by Bouton

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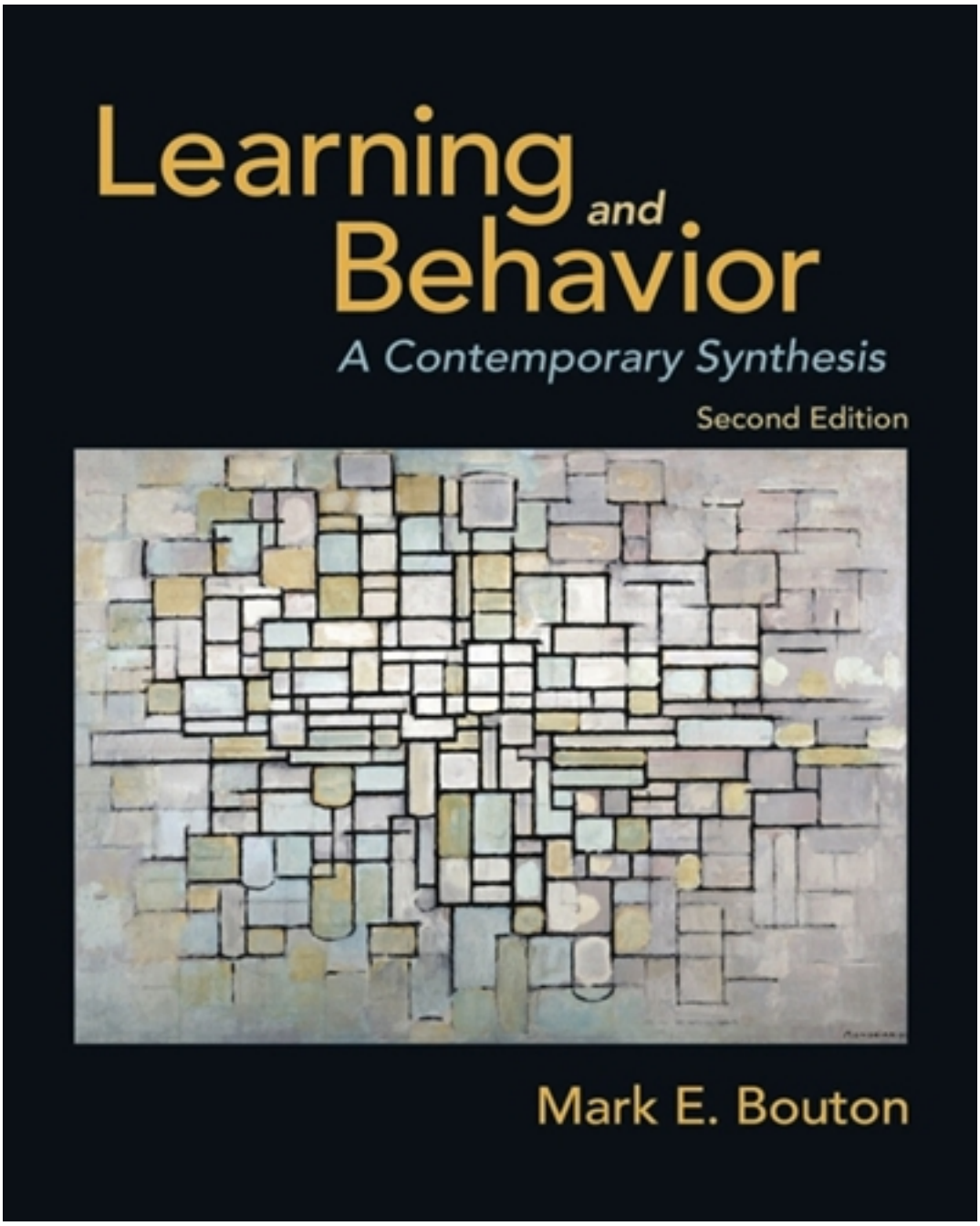


Test Bank

Test Bank

to accompany
Learning and Behavior: A Contemporary Synthesis, Second Edition
by Mark E. Bouton

Chapter 2: Learning and Adaptation

TEST BANK QUESTIONS

Multiple Choice

1. Natural selection is
a. a rapid process that changes features of an organism in just one generation.
b. a superior method of adaptation relative to learning because it benefits all members of the species.
c. based on a fitness criterion: that is, the fastest, largest, strongest, most distinctly marked members of the species are most likely to survive.
d. a process that enables the genetic transmission of both physical features and behaviors.
Answer: d
Textbook Reference: Evolution and Behavior
Bloom's Level: 1. Remembering

2. Predatory birds find it easier to discover light-colored moths than dark-colored moths, and thus the former moths are eaten. From the perspective of evolution, the light-colored moth lacks
a. reproductive success.
b. selection propensity.
c. fitness.
d. ecological value.
Answer: c
Textbook Reference: Evolution and Behavior
Bloom's Level: 4. Analyzing

3. In the context of natural selection, "fitness" refers to the
a. ability of an organism to produce viable offspring.
b. body weight of the organism.
c. ability of an organism to survive.
d. difference between the mental and physical age of an organism.
Answer: a
Textbook Reference: Evolution and Behavior
Bloom's Level: 2 Understanding

4. In evolution, it is most important that an organism
a. survives.
b. is adaptive.
c. passes on its genes.
d. has fixed action patterns.
Answer: c

Textbook Reference: Evolution and Behavior
Bloom's Level: 5. Evaluating

5. Ethologists study
a. the adaptive benefits of an organism's physical features (e.g., feather coloration, fur length, body size).
b. the extent to which learned behaviors can be transmitted to the offspring of the next generation.
c. the fossil records of the body features of similar species in order to predict probable behavior patterns.
d. naturally occurring behaviors of organisms in their natural settings.
Answer: d
Textbook Reference: Evolution and Behavior
Bloom's Level: 1. Remembering

6. Which statement best describes a fixed action pattern?
a. A behavior learned within the first few hours after birth
b. A behavior that becomes automatic and stereotyped
c. An apparently unlearned behavior that is demonstrated by all members of a species
d. An organism's disposition to act in certain ways that can be overridden by learning
Answer: c
Textbook Reference: Evolution and Behavior
Bloom's Level: 5. Evaluating

7. Sign stimuli
a. trigger classically conditioned responses.
b. are approached by organisms.
c. initiate fixed action patterns.
d. initiate operant behaviors.
Answer: c
Textbook Reference: Evolution and Behavior
Bloom's Level: 1. Remembering

8. Which behavior is *not* likely to be a fixed action pattern?
a. A cat running into the kitchen whenever it hears the sound of the can opener
b. A dog raising its hackles when it sees another dog
c. A fish grabbing an insect hovering above the surface of the water
d. A peacock spreading and shaking its tail feathers in the presence of a peahen
Answer: a
Textbook Reference: Evolution and Behavior
Bloom's Level: 4. Analyzing

9. Artificial selection experiments
a. are useful but limited due to their artificial nature.
b. can demonstrate that behaviors can be passed across generations.
c. show us that no behavior is truly innate.
d. are like deprivation experiments, since they also show that behavior must be learned.
Answer: b
Textbook Reference: Evolution and Behavior
Bloom's Level: 2. Understanding

10. Tinbergen observed that the number of black-headed gull eggs taken from a nest was a function of the distance of the nest from broken eggs. This experiment
a. demonstrates the phenomenon of mobbing.
b. is an example of comparative ethology.
c. made use of the evaluative approach.
d. demonstrates the phenomenon of fixed action patterning.
Answer: c
Textbook Reference: Evolution and Behavior
Bloom's Level: 2. Understanding

11. Habituation is a learning process in which an innate behavior
a. becomes less likely to occur when a sign stimulus is presented repeatedly.
b. becomes more likely to occur when a sign stimulus is presented repeatedly.
c. first becomes less likely to occur with repeated stimulation but then rebounds.
d. gradually becomes capable of being triggered by a variety of novel stimuli.
Answer: a
Textbook Reference: Evolution and Behavior
Bloom's Level: 1. Remembering

12. To habituate anxiety elicited by public speaking you might
a. pair public speaking with applause.
b. make a monetary payment contingent on public speaking.
c. practice public speaking over and over.
d. give up—such anxiety is innate and cannot be modified.
Answer: c
Textbook Reference: Evolution and Behavior
Bloom's Level: 3. Applying

13. Which example best demonstrates habituation?
a. Having been recently stung by a bee, Sara is now highly anxious whenever she is outside and hears a buzzing sound.
b. After being on campus for two weeks, Mario sleeps through the night instead of being awakened by the daily 2 a.m. train.
c. Due to hearing loss from a firecracker incident, Justin does not hear the humming of the transformer outside his room.
d. Having just returned home from a two-hour rock concert, Amber turns up the volume on her television so high that her next-door neighbors complain.
Answer: b
Textbook Reference: Evolution and Behavior
Bloom's Level: 5. Evaluating

14. After 14 weeks of exposure to public speaking, John's public-speaking anxiety has subsided. His therapist should tell him that
a. habituation is relatively permanent and he will need no further help.
b. habituation is stimulus specific, so that as long as he continues speaking to similar audiences he will need no further help.
c. habituation fades with time; the anxiety can spontaneously recover and he may need more treatments.

d. he can reduce his anxiety further by preparing more talks that reinforce his calmness.
Answer: c
Textbook Reference: Evolution and Behavior
Bloom's Level: 3. Applying

15. A therapist should be aware that when exposing a client to a stimulus that elicits unwanted behaviors, emotions, or cognitions,
a. habituation might reduce these responses eventually, but the initial anxiety might be too intense for the client to tolerate.
b. the client can become sensitized to the extent that the unwanted behavior never occurs again, even if it could be adaptive in some situations.
c. habituation and sensitization processes likely work together and the unwanted behaviors could increase.
d. no behavioral changes can take place unless the consequences are manipulated.
Answer: c
Textbook Reference: Evolution and Behavior
Bloom's Level: 3. Applying

16. Behavior is most likely to change in strength when O is
a. good or pleasant.
b. bad or unpleasant.
c. neutral.
d. either good or bad.
Answer: d
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 2. Understanding

17. Positive reward involves the _____ of _____ stimulus following a response.
a. presentation; an aversive
b. presentation; a pleasant
c. removal; an aversive
d. removal; a pleasant
Answer: b
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 1. Remembering

18. Omission involves the _____ of _____ stimulus following a response.
a. presentation; an aversive
b. presentation; a pleasant
c. removal; an aversive
d. removal; a pleasant
Answer: d
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 1. Remembering

19. Reward involves the _____ of _____ event following a behavior.
a. presentation; a pleasant
b. removal; a pleasant
c. presentation; an aversive

d. removal; an aversive
Answer: a
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 1. Remembering

20. Negative reinforcement involves the _____of _____ event following a behavior.
a. presentation; a pleasant
b. removal; a pleasant
c. presentation; an aversive
d. removal; an aversive
Answer: d
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 1. Remembering

21. Punishment training involves the _____ of _____ event following a behavior.
a. presentation; a pleasant
b. removal; a pleasant
c. presentation; an aversive
d. removal; an aversive
Answer: c
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 1. Remembering

22. Which scenario demonstrates the application of positive reinforcement?
a. A dog is given a "sit" command while the family eats dinner.
b. A parrot is sprayed with water whenever it attempts to bite.
c. A dolphin is given a herring when it places its tail fluke on the deck for a blood test.
d. A male blue jay scuffles with another male blue jay that enters the yard.
Answer: c
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 3. Applying

23. Which scenario demonstrates the application of punishment?
a. When Jason is one hour late in picking up his brother from soccer practice, his mother takes away his driving privileges for two weeks.
b. When Jennifer hears the garage door closing, she quickly turns off the TV and runs to the dining room to set the table for dinner before her mother enters the house.
c. For every foul that Angelo made during a basketball game, he is required to run 10 laps at the next team practice.
d. Maria puts on a pair of gloves when her hands and fingers start to get cold and stiff while she is ice skating.
Answer: c
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 3. Applying

24. Which scenario involves escape?
a. Kevin loses his computer game privileges for one week because he pushed his sister off the deck.
b. Matt is required to do his sister's chores as well as his own for one week after refusing to give her a ride home from the dance.

c. Maddie skips her history class and then decides to go off-campus for lunch when she sees her history professor walking to the cafeteria.
d. Ashley's hands hurt from a morning spent pruning bushes and weeding, and so she finds a pair of gardening gloves to wear while she finishes her yardwork.
Answer: d
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 3. Applying

25. Which scenario involves avoidance?
a. Since getting a new suede jacket, Keith listens to the weather forecast every morning before deciding whether he will wear it.
b. Since Sonya has been late to school 66 times and cut class 94 times during the school year, she will be required to attend summer school.
c. Based on past experiences with spam and computer viruses, Kelly now deletes all e-mail messages from senders she does not know without even reading them.
d. Because of positive results from a test of banned drugs, the state wrestling champion is stripped of his medal and his name is stricken from the record book.
Answer: c
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 3. Applying

26. Karen talks back to her mother every time she is asked to do something. How might her mother change this behavior?
a. Reinforce Karen for performing the desired task, applying positive reinforcement.
b. Turn around and walk out of the room, applying avoidance learning.
c. Take Karen's cell phone away, applying omission training.
d. Take Karen's cell phone away, applying punishment.
Answer: c
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 3. Applying

27. Monica places a hot dog in her mouth, chews it, and swallows. She very much enjoys the taste, and her hunger pains go away. Subsequent overeating might be supported by
a. positive reinforcement.
b. negative reinforcement.
c. escape learning.
d. both positive and negative reinforcement.
Answer d
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 4. Analyzing

28. The kind of reinforcement operating in a particular scenario is defined by
a. the type of outcome used.
b. the effect of the outcome on behavior.
c. whether the outcome precedes or follows the behavior.
d. whether the behavior is voluntary or involuntary.
Answer b
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 2. Understanding

29. The process of negative reinforcement is defined by
a. the type of outcome used.
b. the effect of the outcome on behavior.
c. whether the outcome precedes or follows the behavior.
d. whether the behavior is removed.
Answer: b
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 2. Understanding

30. Because of public concern about underage drinking, some states now revoke driving privileges until age 21 if an underage driver tests positive for alcohol consumption. Other states require underage drunk drivers to engage in community service (e.g., picking up roadside trash) and to take an alcohol awareness/defensive driving course before driving privileges are restored. The states revoking driving privileges are using a(n) _____ contingency, whereas the states using community service and mandatory driving class are using a(n) _____ contingency.
a. punishment; negative reinforcement
b. punishment; omission
c. omission; punishment
d. omission; negative reinforcement
Answer: c
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 3. Applying

31. Escape and avoidance are forms of
a. positive reinforcement.
b. negative reinforcement.
c. punishment.
d. omission.
Answer: b
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 2. Understanding

32. Punishment and _____ are methods for producing _____ in a behavior.
a. omission; a decrease
b. negative reinforcement; a decrease
c. positive reinforcement; an increase
d. negative reinforcement; an increase
Answer: a
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 2. Understanding

33. _____ and _____ are ways of decreasing the probability that a behavior will occur in the future.
a. Negative reinforcement; omission
b. Punishment; negative reinforcement
c. Omission; punishment
d. Escape; omission
Answer: c

Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 1. Remembering

34. _____ and _____ are ways of increasing the probability that a behavior will occur in the future.
a. Negative reinforcement; positive reinforcement
b. Omission; negative reinforcement
c. Escape; punishment
d. Punishment; avoidance
Answer: a
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 1. Remembering

35. Which term does *not* belong with the others in the list?
a. Positive reward
b. Escape
c. Omission
d. Avoidance
Answer: c
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 2. Understanding

36. Which example illustrates shaping?
a. Children in a family receive gifts or treats regardless of whether they behave well or poorly.
b. A rat receives foot shocks that are presented randomly but are always signaled by a bell.
c. Twenty minutes into the flight, a business traveler no longer notices the soft hissing of the plane's overhead air vent.
d. In preparation for a recital, a piano teacher praises a student for first learning musical scales, then simple songs, and then complex songs.
Answer: d
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 3. Applying

37. As a process, shaping involves a gradual
a. increase in the amount of reward that is given following a behavior.
b. change in the kind of reward that is given following a behavior.
c. increase in the response requirement.
d. change in the contingency, from punishment to reward to omission.
Answer: c
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 2. Understanding

38. Which statement about shaping is *false*?
a. Shaping is an effective technique for creating simple or complex behaviors.
b. Shaping can be used to increase or decrease the frequency or distribution of behaviors.
c. Shaping is a procedure that is equally effective with animals and humans.
d. Shaping seldom occurs in the natural world, and for this reason behavior change relies more on other processes.
Answer: d

Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 4. Analyzing

39. For taste aversion learning to work best, the food or beverage needs to possess _____ features.
a. novel
b. familiar
c. changing
d. stable
Answer: a
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 3. Applying

40. Which statement about taste aversion learning is accurate?
a. Taste aversion learning is an example of an instrumental contingency.
b. For the taste aversion association to form, the aversive stimulus must occur quickly after ingestion of the food or beverage.
c. Humans develop aversions less readily than animals.
d. Taste aversion learning often requires only a single training trial.
Answer: d
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 3. Applying

41. Longing for some familiar food while visiting Japan, Erin visits a Japanese pizza parlor and orders a thin-crust pizza with tomato sauce, cheese, mushrooms, pepperoni, and squid. Later that day, she become nauseated. Which item is Erin most likely to associate with her nausea and avoid eating in the future?
a. Pizza
b. Cheese
c. Pepperoni
d. Squid
Answer: d
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 3. Applying

42. Which statement about classical conditioning and food cues is true?
a. Humans are resistant to learning taste aversions because they can reason about how they became ill and thus understand the accidental nature of the food–illness pairing.
b. Animals are so prepared to acquire taste aversions that they develop food–illness associations regardless of how familiar or commonplace the food cue is.
c. In the process of recovering from an illness or a state of nutritional deficiency, humans and animals can learn to associate foods and flavors eaten during this time with a feeling of well-being, and thus they develop a preference for that food.
d. Feelings of over-satiation from high-calorie foods interfere with learning a preference for those foods.
Answer: c
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 5. Evaluating

43. In the study by Karen Hollis, fish and birds that were given a cue prior to being exposed to a potential mate or rival were
a. only able to associate the cue with a threatening rival, preparing them for defense.
b. only able to associate the cue with a potential mate, preparing them to defend against competitors.
c. able to associate different cues with either a potential mate or rival, leaving them better prepared for what was forthcoming.
d. able to form distinct cue–outcome associations that signaled a potential mate or rival, but could not learn both associations.
Answer: c
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 5. Evaluating

44. In rats, freezing
a. is often a maladaptive response to fearful stimuli, since fighting or fleeing are more useful in most situations.
b. is accompanied by analgesia only when the response allows escape from the fear-inducing stimulus.
c. can be accompanied by the release of endorphins, particularly when the fear-inducing stimulus can produce pain.
d. is slow to condition because it competes with the tendency to flee or fight.
Answer: c
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 4. Analyzing

45. A conditioned compensatory response is
a. an instrumentally conditioned analgesic response that increases drug effectiveness.
b. an instrumentally conditioned extinction response that decreases drug effectiveness.
c. a classically conditioned fear response to cues associated with past embarrassing situations or events.
d. a classically conditioned response to cues associated with the environment in which the drug is used or administered.
Answer: d
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 4. Analyzing

46. Researchers studying the conditioned compensatory response have found that
a. only the effectiveness of narcotics and sedatives are diminished.
b. only the effectiveness of antibiotics and stimulants are diminished.
c. conditioned tolerance effects can reduce the likelihood of drug overdose.
d. animals, but not humans, develop conditioned compensatory drug responses.
Answer: c
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 2. Understanding

47. The conditioned compensatory response produces a response that is
a. similar to the one produced by the outcome.
b. the opposite of the one produced by the outcome.
c. similar to the natural response to the signal for the outcome.

d. the opposite of the natural response to the signal for the outcome.
Answer: b
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 2. Understanding

48. Sign tracking is a tendency to
a. approach a stimulus that predicts a good outcome.
b. approach stimuli that predict good outcomes and retreat from those that predict bad ones.
c. follow a positive outcome, like a cat chasing a mouse.
d. respond to signals to determine which are predictive and which are meaningless.
Answer: b
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 1. Remembering

49. Which example below represents sign tracking?
a. A dog barks at a cat sitting out of reach on a fence.
b. A cat approaches, meows, and rubs up against a light that is always turned on before a food treat is delivered.
c. A hamster buries seeds and nuts in the cedar chip bedding in different areas of the terrarium.
d. A parrot repeats the various phrases it hears repeatedly in the home, on the radio, and on TV.
Answer: b
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 2. Understanding

50. Positive and negative sign tracking and the law of effect
a. ensure adequate adaptation to changing environments.
b. serve similar and parallel functions.
c. operate only in instrumental conditioning.
d. change behavior more in classical conditioning situations than in instrumental ones.
Answer: b
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 4. Analyzing

51. Extinction is a learning process in which
a. punishments cause a rapid reduction or elimination of an inappropriate or dangerous response.
b. a subject is taught that an event or behavior that previously was predictive of a particular outcome is no longer predictive.
c. a reflexive behavior that was once adaptive now becomes a threat to the animal's survival due to environmental changes.
d. animals acquire cues and behaviors that allow them to compete successfully enough to eliminate the competitors in their niche.
Answer: b
Textbook Reference: Other Parallels Between Signal and Response Learning
Bloom's Level: 4. Analyzing

52. At the end of your first two months in your new apartment, you rearrange the bathroom and move the clothes hamper from one corner to the other. For the next two weeks, you accidentally throw your clothes in the wrong corner, but by the end of the third week you are tossing the clothes in the correct location. After spending Thanksgiving break at home with your parents, you again

find yourself pitching your dirty clothes in the corner where the hamper used to be, and you think, "Wow, _____ really does occur."
a. sign tracking
b. generalization
c. extinction
d. spontaneous recovery
Answer: d
Textbook Reference: Other Parallels Between Signal and Response Learning
Bloom's Level: 3. Applying

53. _____ and _____ both decrease an organism's responses, but the decrease in behavior resulting from the latter is not a learned response.
a. Omission training; extinction
b. Extinction; omission training
c. Negative reinforcement; extinction
d. Extinction; habituation
Answer: d
Textbook Reference: Other Parallels Between Signal and Response Learning
Bloom's Level: 1. Remembering

54. Exposure therapy uses _____ to reduce fear responses.
a. spontaneous recovery
b. extinction
c. punishment
d. omission
Answer: b
Textbook Reference: Other Parallels Between Signal and Response Learning
Bloom's Level: 1. Remembering

55. Extinction is basically
a. forgetting.
b. the opposite of learning—it illustrates the unlearning process.
c. the same as habituation; both involve a subject learning to ignore a stimulus.
d. the acquisition of a competing or alternative expectation.
Answer: d
Textbook Reference: Other Parallels Between Signal and Response Learning
Bloom's Level: 4. Analyzing

56. Which statement about the timing of outcomes in relation to other events is true?
a. Classical conditioning works best when the critical events are close together in time, whereas instrumental conditioning works best when the critical events are further apart in time.
b. Classical conditioning works best when the critical events are further apart in time, whereas instrumental conditioning works best when the critical events are closer together in time.
c. Both classical and instrumental conditioning work best when critical events are close together in time.
d. Both classical and instrumental conditioning work best when critical events occur simultaneously.
Answer: c
Textbook Reference: Other Parallels Between Signal and Response Learning

Bloom's Level: 1. Remembering

57. Which statement about the timing of an outcome is true?
a. The timing of the outcome relative to the response has a strong impact on reward learning but not on punishment.
b. The timing of the outcome is more critical for instrumental than for classical conditioning procedures.
c. The same stimulus–outcome timing that produces good learning will also maximize response–outcome learning when the timing is the same.
d. In both classical and instrumental conditioning, close timing produces better learning, but the time scale differs between paradigms.
Answer: d
Textbook Reference: Other Parallels Between Signal and Response Learning
Bloom's Level: 4. Analyzing

58. In general, which statement about the size of an outcome that follows a cue is true?
a. The larger or more intense the outcome, the greater the likelihood that it will overwhelm the animal and disrupt learning.
b. The larger or more intense the outcome, the more rapidly learning occurs.
c. The size of the outcome is a more powerful cue affecting behavior than the timing of the outcome.
d. Evolution, or the preparedness factor, has little impact on behavior relative to the timing and size of the outcome.
Answer: b
Textbook Reference: Other Parallels Between Signal and Response Learning
Bloom's Level: 4. Analyzing

59. Which statement best justifies the conclusion that learning is designed to uncover probable "causes" of outcomes?
a. Large outcomes tend to lead to faster behaviors.
b. Evolution has prepared organisms to associate certain stimuli just as they occur in nature.
c. Instrumental action is directly affected by the size of O.
d. Organisms learn to approach stimuli and perform behaviors that lead to good outcomes and avoid stimuli and stop behaviors that lead to bad outcomes.
Answer: d
Textbook Reference: Other Parallels Between Signal and Response Learning
Bloom's Level: 5. Evaluating

60. The concept of preparedness refers to the extent to which the
a. researcher has selected the most effective training procedure.
b. animal or human is motivated to learn an association.
c. the response to be learned has a natural relationship with the outcome.
d. classical and instrumental associations must be formed for the organism to be prepared.
Answer: c
Textbook Reference: Other Parallels Between Signal and Response Learning
Bloom's Level: 2. Understanding

61. Preparedness illustrates
a. important differences between animal and human learning.

b. the impact of heredity and environment on behavior.
c. that most learning involves instrumental rather than classical associations.
d. that most learning involves classical rather than instrumental associations.
Answer: b
Textbook Reference: Other Parallels Between Signal and Response Learning
Bloom's Level: 2. Understanding

62. Which behavior likely involves a response that a subject is highly prepared to learn?
a. A dog learns to bark at the door in order to be let out every morning.
b. A cat learns to walk on a leash.
c. A parrot learns to hold out its wing to signal to the owner that it is time to be fed.
d. A child learns to share the family computer with siblings who also want to play computer games.
Answer: a
Textbook Reference: Other Parallels Between Signal and Response Learning
Bloom's Level: 3. Applying

Short Answer

1. Monarch butterflies taste nasty to predators due to the presence of cardenolide aglycones in their system. Viceroy butterflies, which look much like Monarchs, are much more tasty. Describe how the Viceroy might have evolved to mimic the Monarch.
Answer: If birds avoid Monarch butterflies, then they would also avoid other butterflies that look like Monarchs. Viceroy butterflies that appear similar to monarchs will be less likely to be consumed, allowing their genes to survive into future generations. Thus, as they continue to be avoided by predators, their appearance will evolve to resemble that of the Monarchs.
Note to instructor: The answer should contain three elements: (1) a simple description of the selection process by which some butterflies are more likely to survive (i.e., they do not get eaten), (2) the result, that their genes survive and are passed on, and (3) that the inherited genes improve the survival of the offspring.
Textbook Reference: Evolution and Behavior
Bloom's Level: 3. Applying

2. Monarch butterflies taste nasty to predators due to the presence of cardenolide aglycones in their system. Viceroy butterflies, which look much like Monarchs, are more tasty. Ethologists have argued that the Viceroy's appearance mimics that of the Monarch because predators avoid those that look like Monarchs and thus Viceroys pass on their genes to offspring. How might you test this evaluative approach?
Answer: The simplest approach would be to obtain multiple examples of Viceroys, rate them according to their similarity to Monarchs, and then place them in a predator's environment. If the hypothesis is correct, the probability of a Viceroy's being eaten should be a direct function of the rated similarity in appearance to the Monarch.
Note to instructor: The evaluative approach determines how a behavior or trait might have evolved by evaluating its survival value. A test is a matter of arranging a situation in which different levels of the trait or behavior are present and observing the impact of those levels on survival.
Textbook Reference: Evolution and Behavior
Bloom's Level: 3. Applying

3. Eibl-Eibesfeldt suggested that eyebrow flashing at friendly social greetings is a fixed action pattern. Based on your knowledge of how fixed actions patterns are supposed to work, how could you test that idea?
Answer: Fixed action patterns are supposed to be built into the genes and not affected by feedback. Thus, you could try to change the frequency of a suspected fixed action pattern by reinforcing or punishing the behavior. If a behavior changes as a function of the outcome, then it is not likely to be a fixed action pattern.
Textbook Reference: Evolution and Behavior
Bloom's Level 5. Evaluating

4. Describe an example of habituation not used in the text or class and discuss how you know that it is habituation.
Answer: My roommate slams the bathroom door when he uses it at night, and the noise used to wake me up. After several weeks of the slamming, I am no longer awakened. I know that I am not unusually tired now or generally less likely to wake up, because when he drops a pan in the kitchen, which is about as loud as the door slamming, I do wake up.
Note to instructor: Answers here will vary considerably. The example should identify a stimulus and a behavior that it elicits and describe how the behavior decreases as a function of exposure. Then the answer should explain that the decrease is not due to fatigue (e.g., habituation is stimulus specific, dishabituation).
Textbook Reference: Evolution and Behavior
Bloom's Level: 5. Evaluating

5. Describe examples of positive and negative reinforcement from your own experience. Clearly identify the behavior, the consequences, and how the behavior changes.
Answer: Groping in the morning to turn off my alarm clock is an example of negative reinforcement. The groping is reinforced by the quieting of the alarm, which makes me grope faster in the following mornings. Studying for a test and receiving a good grade is an example of positive reinforcement. The good grade increases my studying behavior.
Note to instructor: Answers will vary. Negative reinforcement examples should identify a behavior that removes a stimulus and positive reinforcement examples should identify a behavior that produces a stimulus. Both outcomes should increase the behavior.
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 4. Analyzing

6. Describe, with a concrete example, how you could use an omission versus punishment contingency to influence someone's behavior.
Answer: A pupil acting up in class could have his or her recess time taken away to decrease acting-up behavior; this recess deprivation would represent an omission contingency. When teenagers in a car are too loud, a parent could turn on music from the "Golden Oldies" station (a presumably aversive stimulus to teenagers), a punishment contingency that would decrease future loud behavior in the car.
Note to instructor: Each example should identify a behavior, the stimulus that is removed (omission) or presented (punishment), and the effect on behavior.
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 3. Applying

7. You have a hidden box of caramel popcorn, which your roommate loves. Describe how you could shape your roommate to do the dishes using caramel popcorn as a reinforcer.

Answer: When my roommate is in the kitchen, I give him a handful of caramel popcorn. Once there in the kitchen, I wait until he is near the sink, and then I reinforce his being near the sink. After he has stayed near the sink, I would reinforce him for looking at the dirty dishes. Then I would reinforce him for touching the dishes. At that point I only give caramel popcorn when he turns on the faucet with dishes under the water. Finally, I wait until he applies soap to the water and washes a dish before giving him caramel popcorn.
Note to instructor: Answers here will vary. The answer should identify a set of behaviors that are arguably along some continuum, with each behavior being reinforced in turn until the target behavior of washing dishes is accomplished.
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 3. Applying

8. Your roommate enjoys watching your big-screen TV in the living room, as well as eating your mother's homemade brownies when he goes into the kitchen. You want your roommate to clean the living room and to wash the dishes, and you have two reinforcers available—access to the TV and the brownies. Which reinforcer would be best with each behavior, and why do you think so?
Answer: The most effective combination would be to offer the brownies to reinforce dish washing and the TV access to reinforce cleaning the living room. Due to the principle of preparedness, brownies should be more effective for reinforcing food-related tasks and the TV more effective in non–food related tasks.
Note to instructor: The best answers will make use of the preparedness principle in that some reinforcers and behaviors more naturally fit with each other than others. Answers can vary in terms of how the students support their conclusion. For example, they might note that because the brownies are in the kitchen already the subject will be in the kitchen and in the vicinity of the dirty dishes when they want brownies, making shaping of dish washing easier. The same logic can apply to being in the living room to watch TV.
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 5. Evaluating

9. Compare and contrast the processes of natural selection and shaping by consequences in instrumental conditioning, noting the means by which organisms adapt in these two processes.
Answer: Skinner called operant conditioning "shaping by consequences." In evolution, the important consequences of behaviors or traits are either reproductive success, increasing the probability of observing a similar organism, or reproductive failure, decreasing the probability of observing a similar organism. Evolution operates by adapting the species across generations. In shaping, the consequence of a behavior is an outcome that is good (resulting in an increase in the behavior) or an outcome that is bad (resulting in a decrease in the behavior). Instrumental conditioning operates within the lifetime of an organism. Evolution and instrumental conditioning maximize benefits at the level of the species and individual, respectively.
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 2. Understanding

10. Describe the adaptive nature of a conditioned compensatory response and provide an example.
Answer: A conditioned compensatory response is adaptive because it is a reaction to some event that disrupts the equilibrium of the organism. An example can be seen in morphine tolerance. When rats receive injections of morphine in one distinct context, the context comes to elicit a compensatory response that reduces the effectiveness of the morphine in that place. For example, when placed on a hot plate, rats exhibit a pain reaction. If a rat receives an injection of morphine prior to exposure to the hot plate, its perception (and thus expression) of pain is dulled. If morphine

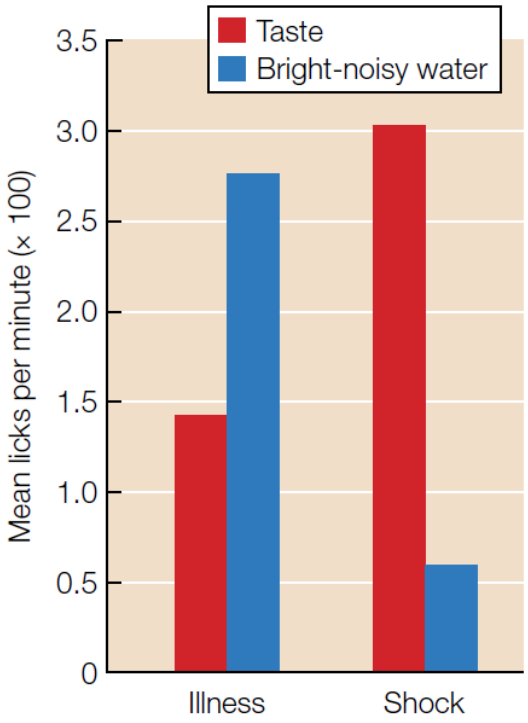
is repeatedly administered to a rat in a particular environment and then subjected to a hot plate in the same environment after a morphine injection, the rat will exhibit a stronger experience of pain than if it is placed on a hot plate in a new environment, such as a different room, after the injection. This suggests that the tolerance to the morphine was context-specific.
Note to instructor: Other examples might be used here. For instance, the student may describe the observance of the compensatory response itself in the absence of the drug.
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 4. Analyzing

11. Describe how a compensatory response can protect against drug overdose and discuss the experimental evidence.
Answer: A conditioned compensatory response reduces the net effect of a drug, such that the experience of a particular dose is akin to the experience of having received a significantly lower dose. When rats were given a high dose of heroin in either a context in which heroin had been routinely administered or a new context not associated with the drug, they were more likely to die of the same dose in the new context. This suggests that the rats had developed a compensatory response in the routine context that reduced the effect of the drug in the body, as if a lower dose had been ingested.
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 3. Applying

12. How can a conditioned compensatory response help support drug abuse?
Answer: Conditioned compensatory responses oppose effects of a drug. Therefore, as the compensatory response develops and becomes stronger, more and more of the drug is required to achieve the same effect. In the absence of the drug, the conditioned compensatory responses alone can be aversive as they counter the effects of the drug. In those cases, using the drug can produce an escape from the experience of the compensatory response, maintaining the abuser's drug-seeking behaviors through negative reinforcement.
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 2. Understanding

13. Support the idea that classical and operant conditioning operate by similar principles by discussing specific similarities.
Answer: Both operant and classical conditioning are affected by the timing of the outcome. Delays between the stimulus or response and the outcome reduce conditioning in both paradigms. Both are affected by the size of the outcome. Larger outcomes tend to lead to bigger changes in behavior and better learning. Both are subject to extinction. When the outcome is omitted the learned responses decrease over trials, just as the conditioned response declines. Both are subject to preparedness. Just as some stimuli are more easily associated in classical conditioning, like flavors and illness, some responses are more easily learned with particular outcomes, such as finches learning to peck for food more easily than to peck for an auditory reinforcer of another finch singing.
Instructor note: The text discusses outcome timing, outcome size, extinction, and preparedness as similarities between the two paradigms.
Textbook Reference: Other Parallels Between Signal and Response Learning
Bloom's Level: 1. Remembering

14. The figure below shows the results of the seminal work by Garcia and Koelling demonstrating preparedness. Describe the experiment and the results, referencing the figure and what the experiment tells us about preparedness.



Answer: In the experiment flavors were paired either with illness or with an electric shock. A noisy water bottle and flashing light were also paired with either illness or shock. The results show that when the taste was paired with illness (red bar on left), the rats licked the bottle containing the flavor less than when the illness was paired with the bright noisy water (blue bar on left). When the bright noisy water was paired with shock (blue bar on right), they licked the bottle less than when the flavor was paired with shock (red bar on right). The same stimuli were used throughout, so the different levels of conditioning observed were not due to the nature or salience of the stimuli, but rather to their specific combinations, demonstrating that organisms are better prepared to make associations between some stimuli than between others.
Textbook Reference: Other Parallels Between Signal and Response Learning
Bloom's Level: 4. Analyzing

15. Some pigeons landed in a park near a woman wearing a large, bright orange hat. The lady fed the pigeons as she walked through the park, and the pigeons began to follow her wherever she went. On future visits, when wearing her flashy hat, the pigeons often landed on her hat. Discuss possible reasons why the pigeons developed these behaviors, both following the woman in the park and landing on her hat.
Answer: Approaching the lady the first time was reinforced with food, so that behavior may be the result of simple positive reinforcement. The pigeons had to be close to receive the food. The presence of the bright orange hat was also paired with food, which may have resulted in it becoming a CS. In that case, the hat-landing behavior may simply be positive sign tracking, because it was not a requirement for retrieving food.
Textbook Reference: Other Parallels Between Signal and Response Learning
Bloom's Level: 4. Analyzing

ONLINE QUIZ QUESTIONS

1. Which term does *not* belong with the others?
a. Ethology
b. Innate
c. Fitness
d. Experience
Answer: d
Textbook Reference: Evolution and Behavior
Bloom's Level: 2. Understanding

2. Which of the following studies would *not* be conducted by ethologists?
a. A comparison of the fossil records of related species
b. A comparison of the natural behaviors of related species
c. A field experiment to study natural behaviors
d. A study to evaluate the benefit or survival value of innate behaviors
Answer: a
Textbook Reference: Evolution and Behavior
Bloom's Level: 2. Understanding

3. The concept of fitness means that compared to the less successful members of a species, the more successful members are
a. more similar to each other.
b. more likely to have offspring that reproduce.
c. likely to live longer.
d. bigger, faster, or stronger.
Answer: b
Textbook Reference: Evolution and Behavior
Bloom's Level: 2. Understanding

4. Fixed action patterns occur when
a. behavior has been reinforced consistently.
b. sign stimuli are presented.
c. classically conditioned stimuli are presented.
d. habituation has taken place.
Answer: b
Textbook Reference: Evolution and Behavior
Bloom's Level: 1. Remembering

5. Whether or not a behavior is innate can be difficult to establish because
a. all members of a species may engage in the behavior because of learning.
b. innate behaviors are not modifiable.
c. only fixed action patterns are innate.
d. all behaviors are susceptible to reinforcement and punishment.
Answer: a
Textbook Reference: Evolution and Behavior
Bloom's Level: 4. Analyzing

6. Which of the following is an example of habituation?
a. Better enjoyment of perfume or cologne shortly after application
b. Increased sensitivity to tornado sirens after first-hand experience of a tornado
c. Reduced tendency to startle when the end-of-class bell rings at the end of the semester as opposed to at the beginning of the semester
d. Increased tendency to become anxious around dogs after getting bitten by one
Answer: c
Textbook Reference: Evolution and Behavior
Bloom's Level: 3. Applying

7. Which statement best describes habituation?
a. Habituation occurs in all animal species.
b. Habituation is a simple form of associative learning.
c. Habituation occurs only with extensive instrumental practice.
d. Habituation occurs with simple intense stimuli but not complex stimuli.
Answer: a
Textbook Reference: Evolution and Behavior
Bloom's Level: 4. Analyzing

8. Following a behavior with a desirable event would be called a(n) _____ procedure.
a. omission
b. escape
c. law of effect
d. positive reinforcement
Answer: d
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 1. Remembering

9. Which of the following is an example of positive reinforcement?
a. A trainer pairs a clicker sound with a food treat.
b. A student receives 10 dollars for every A on her report card, 5 dollars for every B, and 2 dollars for every C.
c. A puppy no longer cries during the night after being in its new home for two weeks.
d. A judge reduces a fine by 25 dollars for every hour of community service performed.
Answer: b
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 3. Applying

10. Escape is said to occur when a subject
a. responds to a signal for an aversive event and thereby prevents the aversive event from occurring.
b. engages in a behavior and is presented with an aversive event.
c. experiences an aversive event and engages in a behavior that removes that event.
d. engages in a behavior and does not experience any outcome.
Answer: c
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 2. Understanding

11. Avoidance is said to occur when a subject

a. responds to a signal for an aversive event and thereby prevents the aversive event from occurring.
b. engages in a behavior and is presented with an aversive event.
c. experiences an aversive event and then engages in a behavior that removes that event.
d. engages in a behavior and does not receive any outcome.
Answer: a
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 2. Understanding

12. When Sasha gets ready to walk her puppy, the puppy sometimes resists the leash by squirming. In response to this behavior, Sasha stops what she is doing, stands up straight, crosses her arms, and looks away, conspicuously ignoring the puppy. Sasha is using the procedure of _____ to reduce the dog's tendency to misbehave.
a. omission
b. escape
c. punishment
d. avoidance
Answer: a
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 3. Applying

13. Punishment is a procedure in which _____ every time the subject performs a particular behavior.
a. an aversive stimulus is removed
b. a desirable event occurs
c. a desirable outcome is removed
d. an aversive event occurs
Answer: d
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 2. Understanding

14. Shaping is a procedure used in _____ conditioning to gradually _____.
a. classical; increase the intensity of the outcome
b. classical; modify how the S is presented over trials
c. instrumental; change the amount, frequency, or time of delivery of the outcome
d. instrumental; change the amount, frequency, or kind of response produced
Answer: d
Textbook Reference: Adaptation and Learning: Instrumental Conditioning
Bloom's Level: 3. Applying

15. When an animal or human experiences a taste or odor that is associated with illness, they learn to avoid contact with that taste or odor in the future. This conditioning procedure is referred to as
a. sign tracking.
b. fear conditioning.
c. taste aversion learning.
d. conditioned compensatory responding.
Answer: c
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 2. Understanding

16. Sam's kickboxing gym gives current members a credit for one month's membership fees for every two new members they refer to the gym. To date, Sam has earned three months of credit on his athletic club fees. The gym then discontinues the membership credit program, and Sam's referrals quickly decline to zero. This change in Sam's behavior is most likely due to
a. omission.
b. punishment.
c. avoidance.
d. extinction.
Answer: d
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 3. Applying

17. Which example illustrates spontaneous recovery?
a. Paul tries to log onto a computer that was not working the day before.
b. Sarah decides to take a different route to class to avoid smelling the freshly baked bread from a bakery.
c. Steve is given the opportunity to take a make-up quiz because he notified his teacher in advance of his impending absence.
d. Jesse attempts a new style of painting when his previous attempts fail to produce the desired results.
Answer: a
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 3. Applying

18. Travis drinks several beers in the same bar every weekend without consequence. One Saturday he sees some friends in the bar as he walks by. He stops in to say "Hello," but does not have a beer. As he is about to leave, he begins to feel nauseated and has a bad headache, as if he had a hangover. Travis could be experiencing
a. conditioned taste aversion learning.
b. positive sign tracking.
c. negative sign tracking.
d. conditioned compensatory responding.
Answer: d
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 3. Applying

19. In general, classical and instrumental learning occur most readily when
a. the time between R-O or S-O is short.
b. the time between R-O or S-O is long (because there is less interference from other responses produced by O).
c. the size or intensity of the O is small, because large Os produce competing responses.
d. the size or intensity of the O is small, reducing the impact of competing O responses.
Answer: a
Textbook Reference: Adaptation and Learning: Classical Conditioning
Bloom's Level: 4. Analyzing

20. The issue of preparedness in learning is connected to
a. the age at which we attempt to train an animal or human.

b. the particular size, type, frequency, duration, and timing of the O that will be used in the conditioning procedure.
c. whether the selected behavior tends to be easy or hard to learn based on the organism's evolutionary predisposition.
d. whether we use classical or instrumental procedures to achieve behavioral change.
Answer: c
Textbook Reference: Other Parallels Between Signal and Response Learning
Bloom's Level: 2. Understanding