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

Chapter 1: Learning Theory: What It Is and How It Got This Way

TEST BANK QUESTIONS

Multiple Choice

1. Learning typically occurs in
a. nonhuman animals, but only for very simple motor tasks during critical periods of development.
b. humans, but primarily in childhood and adolescence during critical periods of development.
c. humans, throughout their entire life span.
d. human and nonhuman animals throughout their entire life spans.
Answer: d
Textbook Reference: Philosophical Roots
Bloom's Level: 1. Remembering

2. Which behavior is the best example of a "reflex action" as described by René Descartes?
a. Sydney is given a set of crayons, and she immediately chooses the green crayon to complete her drawing.
b. Travis descends stairs, trips and almost falls, and then notices that his heart is pounding and his breathing rate has increased.
c. A dog sees a rabbit run under a fence and then rapidly tries to squeeze under the fence.
d. A squirrel walks across the top of a fence, jumps to and crosses a telephone wire, leaps to the top of a bird feeder, and then opens the latched door to gain access to the bird seed.
Answer: b
Textbook Reference: Philosophical Roots
Bloom's Level: 5. Evaluating

3. The French philosopher René Descartes would most likely agree with which statement?
a. Animals are more machinelike than humans, because only humans possess a mind that allows for free will and voluntary behavior.
b. All behaviors of human and nonhuman animals are governed by the pursuit of pleasure and the avoidance of pain.
c. All knowledge, and indeed the mind, results from experience with the environment.
d. Humans and animals come into the world with minds that are already prepared or formatted to interpret the environment they are likely to encounter so that they can learn from their experiences.
Answer: a
Textbook Reference: Philosophical Roots
Bloom's Level: 5. Evaluating

4. Which philosopher would most strongly *disagree* with the idea that human thoughts and actions are governed, at least in part, by physical laws?
a. Thomas Hobbes

b. Julien de la Mettrie
c. David Hume
d. René Descartes
Answer: d
Textbook Reference: Philosophical Roots
Bloom's Level: 5. Evaluating

5. The theory of _____ suggests that behavior can be predicted by whether it maximizes pleasure or minimizes pain.
a. dualism
b. empiricism
c. hedonism
d. rationalism
Answer: c
Textbook Reference: Philosophical Roots
Bloom's Level: 3. Applying

6. The British philosopher Thomas Hobbes would most likely agree that
a. human thought and behavior are governed by the intent to maximize pleasure and minimize pain.
b. humans and animals have free will and are capable of voluntary behavior.
c. the holistic approach is the best way to study the contents of the mind.
d. experience leads humans to associate pleasure with pain.
Answer: a
Textbook Reference: Philosophical Roots
Bloom's Level: 3. Applying

7. The important idea that the mind can affect the mechanistic body came from _____, while the idea that the body can affect the mind is associated with _____.
a. Hume; Locke
b. Mettrie; Locke
c. Descarte; Hume
d. Descarte; Mettrie
Answer: d
Textbook Reference: Philosophical Roots
Bloom's Level: 1. Remembering

8. A parent who tries to understand the actions of her children by observing how they interact with their environment is taking which approach?
a. Dualism
b. Empiricism
c. Hedonism
d. Rationalism
Answer: b
Textbook Reference: Philosophical Roots
Bloom's Level: 3. Applying

9. The view that the mind is empty at birth and that exposure to the environment gives rise to experiences that the organism stores in its memory is known as
a. dualism.

b. rationalism.
c. empiricism.
d. hedonism.
Answer: c
Textbook Reference: Philosophical Roots
Bloom's Level: 2. Understanding

10. The perspective that the mind is a tabula rasa at birth is associated with the philosopher
a. Thomas Hobbes.
b. Julien de la Mettrie.
c. John Locke.
d. Immanuel Kant.
Answer: a
Textbook Reference: Philosophical Roots
Bloom's Level: 1. Remembering

11. The early laws of association assumed that two ideas were likely to be associated if they were
a. dissimilar.
b. separated by time and space.
c. commonplace.
d. dwelt upon.
Answer: d
Textbook Reference: Philosophical Roots
Bloom's Level: 1. Remembering

12. Assuming the laws of association are correct, which pairing would likely produce the strongest relationship?
a. Lighting incense and sneezing
b. Playing classical music and experiencing a startle response
c. Taking a shower in the morning and winning $500 in a lottery in the afternoon
d. The lights turning on in your classroom and the outside temperature dropping
Answer: a
Textbook Reference: Philosophical Roots
Bloom's Level: 3. Applying

13. The German philosopher Immanuel Kant would most likely agree with which statement?
a. Animals are more machinelike than humans, because only humans possess a mind that allows for free will and voluntary behavior.
b. All behaviors of human and nonhuman animals are governed by the pursuit of pleasure or the avoidance of pain.
c. All knowledge, and indeed the mind, results from experience with the environment.
d. Humans and animals come into the world with minds that are already prepared or formatted to interpret the environment they are likely to encounter so that they can learn from their experience.
Answer: d
Textbook Reference: Philosophical Roots
Bloom's Level: 5. Evaluating

14. Ivan Sechenov's work on reflexes during the 1800s emphasized the phenomenon of
a. habituation.

b. inhibition.
c. reflex action.
d. hedonism.
Answer: b
Textbook Reference: Biological Roots
Bloom's Level: 1. Remembering

15. Charles Darwin's study of plants and animals led him to propose a theory of evolution that assumed that
a. animals, but not plants, change by means of evolution.
b. only the physical features of plants and animals (e.g., flower or eye color) change by means of evolution.
c. physical and mental features of animals and humans change by means of evolution.
d. the process of evolution creates a single line of progress in plants and animals.
Answer: c
Textbook Reference: Biological Roots
Bloom's Level: 1. Remembering

16. An early comparative psychologist who studied the mental life of animals and attempted to demonstrate the evolution of mind by recording owners' stories about their pets and working animals was
a. George Romanes, and his approach was rigorous.
b. Charles Darwin, and his approach was scientific.
c. Ivan Sechenov, and his approach was quasi-scientific.
d. George Romanes, and his approach was not very scientific.
Answer: d
Textbook Reference: Biological Roots
Bloom's Level: 5. Evaluating

17. Which statement most closely represents an application of Morgan's Canon?
a. In animals and humans, mind and behavior exist, to varying degrees, to solve problems.
b. Mind and behavior are governed by cognition.
c. Human and animal behaviors result from interactions with the environment.
d. Human and animal behaviors result from an interaction of genetics and free will.
Answer: c
Textbook Reference: Biological Roots
Bloom's Level: 3. Applying

18. Who would be most likely to take that position that learning is not the experience of sudden insights, but rather a gradual process of trial and error?
a. Ivan Sechenov
b. Edward Tolman
c. Edward Thorndike
d. Ivan Pavlov
Answer: d
Textbook Reference: Biological Roots
Bloom's Level: 2. Understanding

19. To conduct a study that makes use of the law of effect, the design would need to

a. ensure that subjects' behaviors are followed by satisfying events.
b. precede behaviors with clear stimuli and follow behaviors with satisfying events.
c. inform subjects that their behavior will have an effect on the outcomes.
d. The law of effect would not be used due to ethical considerations.
Answer: b
Textbook Reference: Biological Roots
Bloom's Level: 3. Applying

20. Edward Thorndike studied learned relationships that could best be described as _____
associations.
a. stimulus-stimulus
b. stimulus-response
c. response-response
d. response-stimulus
Answer: b
Textbook Reference: Biological Roots
Bloom's Level: 1. Remembering

21. Ivan Pavlov studied learned relationships that could best be described as _____ associations.
a. stimulus-outcome
b. stimulus-response
c. response-response
d. response-stimulus
Answer: a
Textbook Reference: Biological Roots
Bloom's Level: 1. Remembering

22. Structuralism, a historical school of thought in psychology, examined the
a. brains of various animals to develop an atlas of the common and unique brain structures.
b. structure of the human mind via introspection and describing perceptions.
c. evolutionary advantages of different structures of consciousness (e.g., dreaming, attention).
d. role played by stimulation and perception in the development of cognitive structures.
Answer: b
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 1. Remembering

23. The structuralist approach to studying the mind
a. produced many important results, but it was a time consuming and expensive approach.
b. considered only normal adult humans, and thus could not be generalized to a wider population.
c. used unreliable techniques and contributed little to modern knowledge in psychology.
d. was heavily influenced by evolutionary theory and initiated animal research on the mind.
Answer: c
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 4. Analyzing

24. The school of thought known as behaviorism argued that real progress in the field of psychology
would occur if psychologists would limit their study to
a. simple animal behaviors before attempting to explain the complexity of human behavior.

b. just those human behaviors that could be verified by asking the subjects to explain how they had learned the behavior and why they performed it.

c. behavior that could be verified by physiological data from the nervous system.

d. directly observable and measurable behaviors that could be independently verified.

Answer: d

Textbook Reference: A Science of Learning and Behavior

Bloom's Level: 2. Understanding

25. Some forms of behaviorism rejected the study of mental processes because they

a. are not common in animals and humans and thus cannot be compared.

b. cannot be reliably observed or measured and thus cannot be objectively studied.

c. can be verified only in adult humans, and animal comparisons are important.

d. were viewed as consequences, not precursors, of behavior.

Answer: b

Textbook Reference: A Science of Learning and Behavior

Bloom's Level: 4. Analyzing

26. B. F. Skinner's approach is referred to as radical behaviorism because he advocated

a. the position that all behavior is due to evolutionary processes.

b. ignoring the potential effect of intervening variables between a stimulus and a response.

c. studying only mental behavior because it is the trigger for motor behavior.

d. ignoring the study of deviant behavior until we have a complete understanding of normal behavior.

Answer: b

Textbook Reference: A Science of Learning and Behavior

Bloom's Level: 4. Analyzing

27. Which characteristic below is *not* associated with using Skinner boxes (operant chambers) in an experiment?

a. The amount and types of uncontrolled stimulation experienced by the animal in the box are limited.

b. The subject controls the type, rate, and amount of responding during the experimental session.

c. It requires frequent monitoring to ensure events are controlled.

d. It can be used to study simple behaviors in lower level animals (e.g., rats, pigeons).

Answer: c

Textbook Reference: A Science of Learning and Behavior

Bloom's Level: 2. Understanding

28. The use of intervening variables is found

a. only in psychology.

b. in psychology and mathematics.

c. in all sciences.

d. only in Tolman's work.

Answer c

Textbook Reference: A Science of Learning and Behavior

Bloom's Level: 4. Analyzing

29. Which observation illustrates the principle of operant behavior?

a. Increasing the amount of food that follows lever pressing increases lever pressing.

b. Increasing the amount of food that follows a light increases drooling to the light.
c. Increasing the amount of food that follows lever pressing has no effect on lever pressing.
d. Increasing the volume of a tone paired with food increases drooling to the tone.
Answer: a
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 4. Analyzing

30. A behavior that is controlled by its consequences would be considered a(n) _____ behavior.
a. respondent
b. classically conditioned
c. operant
d. radical
Answer: c
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 2. Understanding

31. An experimenter who observes that manipulating an antecedent stimulus changes the subject's behavior is most likely looking at
a. operant behavior.
b. dualism.
c. respondent behavior.
d. the law of effect.
Answer: c
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 3. Applying

32. Which term is most associated with respondent behaviors?
a. Voluntary
b. Consequence-controlled
c. Complex
d. Reflexive
Answer: d
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 3. Applying

33. A consequence of a response that increases the response would be classified as a(n)
a. reinforcer.
b. operant.
c. punisher.
d. satisfier.
Answer: a
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 2. Understanding

34. Modern learning theory is most associated with the perspective of
a. radical behaviorism.
b. operational behaviorism.
c. information processing.
d. the law of effect.

Answer: b
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 5. Evaluating

35. Operational behaviorism asserted that
a. behavior can be studied reliably only by using the highly controlled equipment of the operant chamber.
b. an unobservable variable can be used to explain behavior if we indicate how we will manipulate it and how it will affect behavior.
c. before we can reliably measure and predict behavior, we must have accurate operational definitions of the antecedents.
d. both respondent conditioning and operant behavior are controlled by the same operations—antecedent events.
Answer: b
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 1. Remembering

36. An intervening variable exists only
a. in our explanation of a behavior.
b. to the extent that it is defined operationally.
c. if it influences another intervening variable.
d. to connect one stimulus to one response.
Answer: b
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 4. Analyzing

37. Which of the following would *not* be considered an intervening variable?
a. Anger
b. Fear
c. Eating
d. Curiosity
Answer: c
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 2. Understanding

38. Which behavioral psychologist would be *least* likely to use intervening variables to explain behavior?
a. Edward Tolman
b. Edward Thorndike
c. John Watson
d. B. F. Skinner
Answer: d
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 3. Applying

39. Tolman and Hull were important because
a. their work resulted in our knowledge of maze learning and drive.
b. their approaches made it possible and acceptable to use unobservable events in psychological explanations.

c. they eliminated radical behaviorism from psychology.
d. they brought back introspection as a valid framework.
Answer: b
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 5. Evaluating

40. Which of the following can be used to demonstrate an intervening variable, a motivating force, and a biological need?
a. Tolman's concept of anchoring
b. Hull's concept of habit
c. Hull's concept of Drive
d. Skinner's box
Answer: d
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 4. Analyzing

41. Hull's theory
a. is important as an explanation for the development of habits.
b. has been mostly disconfirmed.
c. is important as an example of the correct use of theoretical constructs.
d. is archaic.
Answer: c
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 5. Evaluating

42. Psychologists use metaphors in explaining psychology because
a. metaphors are more precise than theories.
b. metaphors can offer insightful ways of understanding behavior.
c. people understand metaphors better than they understand theories.
d. all learning is metaphorical.
Answer: b
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 3. Applying

43. The perspective that compares computer operations to mental operations fits best with the ideas of
a. operational behaviorism.
b. information processing.
c. parallel distributed processing.
d. operant experimentation.
Answer: b
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 3. Applying

44. Computers are generally considered to be limited as models of information processing because computers
a. are a better model for symbol manipulation than for actual learning processes.
b. store most information in temporary rather than long-term memory.
c. tend to use parallel processing instead of serial processing.

d. do not transform or change input the way encoding processes do.
Answer: a
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 4. Analyzing

45. Which perspective views cognition as a network of nodes that activate one another in a manner akin to neuronal networks?
a. Information processing
b. Connectionist
c. Darwinian
d. Hullian
Answer: b
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 5. Evaluating

46. Which term does *not* belong in this list of related terms?
a. Parallel distributed processing
b. Information processing
c. Connectionism
d. Neural networks
Answer: b
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 4. Analyzing

47. Which modern framework represents the most atomistic approach?
a. Behaviorism
b. Connectionism
c. Information processing
d. The "standard model"
Answer b
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 4. Analyzing

48. According to the assumptions of connectionism,
a. activation of one node generally results in the activation of other strongly linked nodes.
b. all nodes must be activated before recognition can take place.
c. the nodes are stored in long-term but not short-term memory.
d. positive node connections result in remembering and negative node connections result in forgetting.
Answer: a
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 2. Understanding

49. Which statement about human and animal learning is accurate?
a. The computer metaphor is appropriate for explaining human learning but not for explaining animal learning.
b. The connectionist approach has replaced learning theory as a parsimonious way to explain both animal and human learning.

c. Animal learning tends to focus more on associations between behavior and emotionally significant events.
d. Human learning is influenced more strongly by evolutionary and genetic factors.
Answer: c
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 2. Understanding

50. Which statement is *not* a reason that animals provide excellent models for studying human learning processes?
a. Their genetic background can be known and controlled.
b. Many of the same basic learning processes occur in a variety of different species.
c. We can study the effects of aversive, invasive, or enduring events on learning processes in animals.
d. Many animal behaviors are species specific, allowing us to study a process uncomplicated by other competing processes.
Answer: d
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 4. Analyzing

51. What might lead a novice researcher to study humans instead of animals?
a. Extensive federal and state laws have severely restricted the kinds of physiological and genetic research that may be conducted with animals.
b. The present body of knowledge about learning phenomena requires researchers to use more complex species, such as humans.
c. Animals are not the best model for studying topics such as language, tool use, creativity, or self-esteem.
d. Research with humans can be better controlled through randomization.
Answer: c
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 3. Applying

52. Which statement about classical conditioning phenomena is *false*?
a. They allow us to learn how organisms anticipate biologically significant events.
b. They allow us to study only simple reflexive behaviors.
c. They allow us to obtain useful insights into how organisms adapt to their environment.
d. They allow us to identify how organisms learn about meaningful versus meaningless stimulus relationships.
Answer: b
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 5. Evaluating

53. Psychologists use the symbol O to stand for a(n)
a. instrumental response.
b. classical response.
c. classical stimulus cue.
d. biologically significant outcome.
Answer: d
Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 1. Remembering

54. Psychologists use the symbol R to stand for a(n)
a. response.
b. reinforcer.
c. organism that responds.
d. biologically significant outcome.
Answer: a
Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 1. Remembering

55. Which statement about conditioning is *false*?
a. Classical conditioning generally produces associations between two stimuli.
b. Instrumental conditioning generally produces associations between a response and an outcome.
c. Learning typically involves classical or instrumental conditioning, but not both processes.
d. Classical and instrumental conditioning are involved in learning about biologically significant events.
Answer: c
Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 5. Evaluating

56. Which example best illustrates instrumental conditioning?
a. Chuck placing chili into a crock pot to heat it
b. Chuck getting hungry in the lab
c. Chuck getting hungry at the sight of a crock pot
d. Chuck avoiding chili after having eaten too much chili
Answer: a
Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 3. Applying

57. Which example illustrates instrumental conditioning?
a. Crows flocking to the beach at low tide but not high tide
b. A baby kicking her legs to move a mobile
c. Feeling a craving for a drug at a particular location
d. A child getting excited at the sight of a brightly colored bottle of bubbles
Answer: b
Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 1. Remembering

58. Which example illustrates classical conditioning?
a. A baby sucking on a pacifier to get a sweet drink
b. Feeling a craving for a drug at a particular location where the drug has been taken before
c. Crows dropping large whelks from a specific height onto rocks
d. A child loading a precise amount of soap onto a bubble wand
Answer: b
Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 3. Applying

59. Which example best illustrates classical conditioning?
a. Crows selecting large whelks instead of small whelks

b. Crows dropping large whelks from a specific height onto rocks
c. A child getting excited at the sight of a brightly colored bubble bottle
d. A child loading a precise amount of soap onto a bubble wand
Answer: c
Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 3. Applying

60. Modern neuroimaging in humans can give us information about
a. brain activity during different learning tasks, and thus the brain areas responsible for learning.
b. brain activity during different learning tasks, but little information as to whether they are responsible for learning.
c. causal connections between brain events and behavior, but no information about learning.
d. where associations are formed and stored.
Answer: b
Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 2. Understanding

Short Answer

1. What was Descartes' answer to the question of whether people are simply complex machines, and what are the important aspects of his conclusion?
Answer: Descartes proposed the idea that the mind and the body are separate entities. The body follows physical laws via automatic reflex actions, while the mind operates by free will. The idea that the body follows physical laws was important because it helped launch the idea that some aspects of behavior are scientifically testable.
Note to instructor: The answer should reflect the student's understanding that Descartes proposed a separation between the mind and the body. Students should understand that, based on this point of view, the body follows physical laws (for instance, reflexes), while the mind operates according to free will. Best answers will reflect an understanding that the separation allows us to study some aspects of behavior scientifically.
Textbook Reference: Philosophical Roots
Bloom's Level: 5. Evaluating

2. Explain why the theory of evolution is relevant to understanding learning in animals and humans.
Answer: The theory of evolution assumes that both humans and animals are alike in their struggle for survival and that all of life evolved through natural selection. Therefore, it assumes that there is continuity among species. Thus, we can begin to understand some aspects of one species, such as humans, by studying the similar characteristics of another.
Note to instructor: Answers should reflect the student's understanding of an assumed continuity between humans and animals that allows us to understand aspects of one species by studying similar characteristics in another.
Textbook Reference: Biological Roots
Bloom's Level: 2. Understanding

3. Discuss how comparative psychology emerged as a function of Darwin's ideas.
Answer: Darwin's idea of continuity among species implied that the human mind, too, was a result of evolution. Comparative psychology came about initially to study the evolution of the mind,

leading to the development of techniques and ideas that permit the investigation of the intellectual/psychological capabilities of animals.
Textbook Reference: Biological Roots
Bloom's Level: 4. Analyzing

4. Explain how Morgan's Canon and empiricism produced a sound foundation for understanding behavior.
Answer: Morgan's Canon, or the "law of parsimony," states that if a behavior can be explained either by a complex mental process or a simpler one, we should accept the simpler of the two explanations. Simple ideas about behavior that are linked to observable empirical events produce explanations that can be readily verified or falsified by observation or experimentation. Thus, they are the necessary components of understanding.
Note to instructor: Answers should reflect an understanding that science depends on testable explanations, so explanations must be linked to observable events and simple enough to be testable.
Textbook Reference: Biological Roots
Bloom's Level: 2. Understanding

5. Explain Kant's notion of "a prioris" and describe an example and its use.
Answer: "A prioris" are inherent assumptions in the mind that help it to receive or process information. I know items have substance, so I know that 2 cupcakes will weigh more than 1 cupcake without having to experience the difference.
Note to instructor: Answers should reflect the student's understanding that "a prioris" are supposedly innate assumptions or ideas that we use to organize experiences. Examples might arguably be inherent or learned, but should reflect that the a priori is used to organize some experience. Essentially the student will state a belief, and show how that belief helps organize their experience. Gestalt principles of perception remembered from introductory psychology may be acceptable examples. Examples of a prioris from the book may include substance, time, space, and causality.
Textbook Reference: Philosophical Roots
Bloom's Level: 2. Understanding

6. Describe the impact of the law of effect on behaviors and provide a personal example of a way the law of effect has operated in your own behavior.
Answer: The law of effect states that an action followed by a satisfying state of affairs will stamp in an association between the stimulus present and the response, making the response to the same stimulus more likely in the future. The satisfaction produced by "likes" on my social media post makes me spend hours checking my posts daily.
Note to instructor: Personal examples should clearly identify the stimulus, the behavior, the consequence that produces satisfaction, and an example of the behavior occurring more often in the presence of the stimulus.
Textbook Reference: Biological Roots
Bloom's Level: 3. Applying

7. Describe an operant and a respondent behavior not presented in the text and what distinguishes them from one another.
Answer: Flipping a light switch is an example of an operant behavior. Flipping the switch would not occur if it were not followed by the illumination of the light in the past, thus it is controlled by its consequence, which is the defining characteristic of an operant. Jumping to the sound of a book

being dropped on the floor is an example of a respondent. It is in response to a stimulus and occurs regardless of the consequence of the behavior, defining it as a respondent.
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 4. Analyzing

8. Compare and contrast Skinner's radical behaviorism and Tolman's operational behaviorism.
Answer: Skinner's radical behaviorism explains behavior in terms of the interrelations between stimuli in the environment and the behavior itself. Tolman's operational behaviorism also considers the relationships between the stimuli and the behavior, but it considers the action of intervening variables. Skinner's approach says that these intervening variables are unnecessary for understanding the behavior and introduces a new set of variables whose function requires their own explanation, while Tolman would argue that the variables simplify the explanation of the behavior.
Note to instructor: Answers should describe both perspectives, show some commonality between them, and describe what makes them different. The key difference has to do with Tolman's consideration of intervening variables as useful explanatory constructs.
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 2. Understanding

9. Summarize the meaning of connectionism and provide an example.
Answer: Connectionism is an explanatory perspective that assumes that learning can be understood as a set of interconnections between units or nodes that can represent environmental events and behaviors. The connections between these nodes can vary in strength, such that a node can be activated by a set of inputs or a partial set of inputs. For example, in a network representing a "dog," the "dog" node might be activated from partial inputs of "barking" and "four legs" even when other inputs such as "hair" and "wet nose" are absent.
Note to instructor: Examples may vary but should reflect the student's understanding that nodes correspond to observable things, that connection strengths between nodes can vary, and that a node can be activated by partial input from other nodes.
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 2. Understanding

10. Describe an intervening variable and explain why psychologists include intervening variables in their theories.
Answer: Hunger is an intervening variable. It can be induced by a number of situations or stimuli such as deprivation of food for 24 hours, the sight of food, and the smell of food. Its effects can be observed as an increase in eating, an increase in searching for food, an increase in a subject's approaching food, or a subject's working to receive food. Intervening variables express numerous possible relationships between observable events.
Note to instructor: Answers may vary, but the description of the variable should include a description of empirical events that lead to a manipulation of the variable and a description of how changes in the variable can be observed in behavior.
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 2. Understanding

11. Given our current knowledge of learning processes, why does psychology continue to use animals in learning research?
Answer: The use of animals as subjects allows researchers to study situations, such as those involving fear and pain, that cannot be conducted with humans. It also allows them to investigate

the underlying physiology that contributes to learning using manipulations that are not possible in humans.

Note to instructor: Answers may also reflect the student's understanding that comparing learning processes across species that share different evolutionary histories can lead to insights into the origin and function of these processes.

Textbook Reference: A Science of Learning and Behavior

Bloom's Level: 5. Evaluating

12. Consider the differences between Romanes' and Morgan's approaches to understanding behavior. In what ways do these differences resemble the disagreement that exists between structuralist and behaviorist understandings of behavior?

Answer: Romanes anthropomorphized animals in his descriptions of behavior, attributing various complex cognitive functions to their behavior. Morgan, by contrast, sought the simplest description possible and emphasized testability. The goal of structuralists was to understand the structure of the mind by means of introspection. This method resulted in complicated descriptions that were next to impossible to verify. Behaviorists sought to base their explanations only on verifiable, observable behavior and events. Thus the similarity is that in both cases there is a contrast between untestable complex explanations and testable simpler ones.

Note to instructor: There can be multiple correct answers here depending on how accurately the student describes the two approaches and compares the similarities and differences. Most students should be able to recognize that the difference between Romanes and Morgan has to do with differences between complex and untestable explanations versus simpler testable explanations. That difference is also seen in the contrast between the structuralists, who deal with complex descriptions of unobservable internal states that cannot be falsified, and behaviorists, with their descriptions of behavior that can be tested and falsified. However, some students may correctly identify other differences.

Textbook Reference: Philosophical Roots; A Science of Learning and Behavior

Bloom's Level: 4. Analyzing

13. Give an example of classical conditioning not discussed in the text or in class and explain its components and effect.

Answer: After eating too much popcorn (S) at the theater, I got sick (O). Now I can't stand popcorn.

Note to instructor: Answers will vary, but a correct answer will identify the two stimuli being paired as well as how they are paired. It should be evident that one stimulus comes to elicit a new response as the result of the pairings.

Textbook Reference: Tools for Analyzing Learning and Behavior

Bloom's Level: 4. Analyzing

14. Give an example of instrumental conditioning not discussed in the text or in class, and explain its components and effect.

Answer: In my Learning class, I paraphrased the information in each chapter out loud daily (R), and I received an A on the final exam (O). I now paraphrase all textbook chapters in each of my classes.

Note to instructor: In identifying the components of operant conditioning, the behavior should be clear as well as the consequence of that behavior and how the behavior changed as a function of the consequence.

Textbook Reference: Tools for Analyzing Learning and Behavior

Bloom's Level: 4. Analyzing

15. Johnny was riding his bicycle very quickly when a red car whizzed by, startling him and causing him to fall and skin his knee. He now is afraid of both red cars and riding his bicycle. Analyze the situation in terms of the component associations that could have produced these fears.

Answer: Both a red car (S) and riding a bicycle (R) were followed by a painful accident (O). Associations between S and O would account for his fear of red cars, and associations between R and O would account for his fear of riding his bicycle.

Note to instructor: Answers should reflect the student's correct application of the S, O, and R labels, as well as an understanding of where associations were formed.

Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 3. Applying

16. When you are hungry you search for food. Imagine that you are hungry now as you take this test —but you are not searching for food. The associative link(s) required to make you respond to the hunger with a search for food is(are) missing. List the link(s) that are absent and describe why the link(s) are necessary for you to search for food.

Answer: An S-O association is missing; there are no stimuli (S) that predict food (O), and thus no search behaviors are elicited.

Note to instructor: Multiple answers could be correct here, as long as the student correctly describes the association and its effect on behavior. For example, the student may say that an S-O association is missing; there are no stimuli (S) that predict food (O), thus no search behaviors are elicited. The student may state that an association between S and R-O is missing; searching (R) is only reinforced with food (O) in the presence of certain stimuli (S), such as a refrigerator.

Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 3. Applying

ONLINE QUIZ QUESTIONS

1. Learning is a process that is presumed to be due to
a. evolution.
b. experience.
c. development.
d. maturation.
Answer: b
Textbook Reference: Philosophical Roots
Bloom's Level: 1. Remembering

2. Which statement best illustrates or defines the concept of hedonism?
a. Animal behavior is controlled by physical laws, but human behavior is determined by free will.
b. A chick moves toward its mother for warmth and avoids an open door to the cold.
c. Genetics and environmental experiences interact to produce behavior.
d. Bob refuses to eat eggplant.
Answer: b
Textbook Reference: Philosophical Roots
Bloom's Level: 4. Analyzing

3. According to the philosophical perspective of empiricism,
a. animal behavior is controlled by physical laws, but human behavior is determined by free will.
b. all organisms seek to maximize pleasure and minimize pain.

c. genetics and environmental experiences interact to produce behavior.

d. ideas and mind are developed entirely from experience.

Answer: d

Textbook Reference: Philosophical Roots

Bloom's Level: 2. Understanding

4. A therapist tells a client that all troubling thoughts and feelings are learned, and that they can therefore be overcome by setting up appropriate contingencies in the client's environment. This therapist is a(n)

a. empiricist.

b. rationalist.

c. atomist.

d. dualist.

Answer: a

Textbook Reference: Philosophical Roots

Bloom's Level: 3. Applying

5. A therapist tells a client that all of his troubles are caused by a set of assumptions in his mind. Thus, the troubles can be overcome by discussing the problem and figuring out the solution in a conversation. The therapist is a(n)

a. empiricist.

b. dualist.

c. rationalist.

d. behaviorist.

Answer: c

Textbook Reference: Philosophical Roots

Bloom's Level: 3. Applying

6. Darwin's theory of evolution assumes that _____ change(s) through evolution.

a. only physiology

b. only mental capacities

c. physiology and mental capacities only in animals

d. both physiology and mental capacities in animals and humans

Answer: d

Textbook Reference: Biological Roots

Bloom's Level: 1. Remembering

7. Jack explains his cat's annoying meowing near the refrigerator as a simple response-outcome association (R-O learning) that was established by the cat's being fed in response to the meowing. Tim says that the cat believes that the meowing itself causes the door to be opened. Jack, but not Tim, seems to be operating according to the precepts of

a. Occam's Razor.

b. Morgan's Canon.

c. rationalist thinking.

d. Watsonian behaviorism.

Answer: b

Textbook Reference: Biological Roots

Bloom's Level: 4. Analyzing

8. Which individual is *least* associated with the study of instrumental or operant learning?
a. Edward Thorndike
b. John Watson
c. Edward Tolman
d. Ivan Sechenov
Answer: d
Textbook Reference: Biological Roots
Bloom's Level: 1. Remembering

9. R-O learning is most associated with
a. operant conditioning.
b. classical conditioning.
c. maze learning.
d. Clark Hull.
Answer: a
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 1. Remembering

10. John Watson argued that learning could be best understood by studying
a. self-reports obtained from acutely introspective individuals.
b. the effects of intervening variables on behavior.
c. directly observable and measurable behaviors.
d. the antecedents and consequences of behaviors.
Answer: c
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 2. Understanding

11. Assume an association is formed between stimuli present when a response is made and food, warmth, or sex. Because of this association, the response will be seen again in the presence of the stimuli. The association is therefore
a. a response-outcome association.
b. an intervening variable.
c. reinforcing.
d. the consequence of behavior.
Answer: b
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 4. Analyzing

12. According to B. F. Skinner's behavioral perspective, learning can be best understood by studying
a. self-reports obtained from acutely introspective individuals.
b. the effects of intervening variables on behavior.
c. directly observable and measurable behaviors.
d. the antecedents and consequences of behaviors.
Answer: d
Textbook Reference: A Science of Learning and Behavior
Bloom's Level: 1. Remembering

13. Tracy knows that she can get a good connection to the internet at Bill's Coffee Shop and download her favorite music there. Which association(s) explain that knowledge?
a. Stimulus-outcome
b. Stimulus-response
c. Response-outcome
d. An association between a stimulus and a response-outcome association
Answer: d
Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 3. Applying

14. Bob gets very angry in many situations, leading to considerable attention from his friends. It is likely that
a. Bob's behavior is controlled by S-O associations.
b. any effort to get Bob under control will have to include removing him from situations that trigger his anger.
c. any effort to get Bob under control will need to involve the cooperation and participation of his friends.
d. Bob's problem is genetic.
Answer: c
Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 4. Analyzing

15. Which term could *not* be used to describe classical conditioning?
a. Reflexive
b. Antecedent controlled
c. Innate
d. Learned
Answer: c
Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 3. Applying

16. Which term could *not* be used to describe instrumental conditioning?
a. Reflexive
b. Voluntary
c. Consequence controlled
d. Learned
Answer: a
Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 3. Applying

17. Learning a language, learning how to dance, and learning how catch a ball are all examples of
_____ behaviors.
a. innate
b. reflexive
c. classically conditioned
d. instrumentally conditioned
Answer: d
Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 3. Applying

18. Learning that a skull-and-crossbones sign means poison, that sour smelling milk is spoiled, and that a certain cologne belongs to a loved one are all _____ behaviors.
a. voluntary
b. consequence-controlled
c. classically conditioned
d. instrumentally conditioned
Answer: c
Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 2. Understanding

19. Which of the following is *not* a reason that animals are used as research models?
a. With animals, researchers can use invasive, aversive, or enduring events as consequences.
b. The experiences and genetics of animals can be controlled.
c. Fundamental, general learning processes occur in a vast array of species.
d. Using animals as research models allows researchers to compare the importance of language in different species.
Answer: d
Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 4. Analyzing

20. Which statement about contemporary psychological perspectives is true?
a. Connectionist perspectives have replaced information processing models in cognitive and learning psychology.
b. Radical behaviorism is the dominant model in modern learning psychology.
c. Modern learning psychologists use a variety of cognitive constructs, such as memory and attention, as well as simple associations in their explanations.
d. Classical and instrumental conditioning typically occur separately, and associations are learned less effectively when both occur.
Answer: c
Textbook Reference: Tools for Analyzing Learning and Behavior
Bloom's Level: 4. Analyzing