

Learning

1. Pavlov presented the sound of a tuning fork as a stimulus and then gave the dog food. After a few repetitions, the dogs started to salivate in response to the sound of the tuning fork. At this stage of training, the sound of the tuning fork is a(n)
 - A. unconditioned stimulus
 - B. conditioned response
 - C. neutral stimulus
 - D. conditioned stimulus
2. To encourage her son to complete his homework on time, his mother tells him he won't be required to help with the after dinner dishes. This is an example of
 - A. negative reinforcement
 - B. positive reinforcement
 - C. shaping
 - D. negative punishment
3. To treat bedwetting in a child, a pad is placed at night that sounds an alarm when wet. After several weeks a full bladder wakes the child without the need for the alarm. This is an example of learning occurring through
 - A. positive punishment
 - B. negative reinforcement
 - C. classical conditioning
 - D. negative punishment
4. Rats in the first experimental group were allowed to roam a maze for several hours with absolutely no reinforcement. Then they learned to navigate the maze for a food reward. Compared to a second group of rats experiencing the maze for the first time, the rats in the first group were able to learn to navigate the maze for a food reward much more quickly. The difference between the two groups is an example of
 - A. positive reinforcement
 - B. latent learning
 - C. insight learning
 - D. backward conditioning
5. Which of the following is not an example of learning through operant conditioning?
 - A. a pidgeon turning in a circle to get food
 - B. a dog runs to the kitchen at the sound of a can-opener
 - C. a child learns the habit of lying to avoid punishment
 - D. after receiving an expensive speeding ticket a driver no longer habitually speeds
6. In a famous experiment, Garcia and Koelling showed that certain associations between conditioned and unconditioned stimulus were easier to form than others. For example, a loud noise could be more readily associated with a shock and fear response than water could be similarly associated. The experiment illustrated
 - A. higher-order conditioning
 - B. discrimination
 - C. biological preparedness
 - D. backward conditioning

7. Which of the following statements are true regarding reinforcement schedules in operant conditioning?
- I. Continuous reinforcement works best when teaching a new behavior
 - II. Variable schedules are more resistant to extinction
 - III. Ratio schedules tend to yield higher rates of response than interval schedules
 - IV. Variable schedules tend to yield more consistent rates of responding than fixed schedules
- A. II only
B. I and II
C. I, III and IV
D. I, II, III and IV
8. Which of the following is an example of a primary reinforcer?
- A. applause after a musical performance
B. a trip to McDonalds for a child's good behavior
C. a salary increase for introducing efficiencies in the work-place
D. a good grade on an essay assignment
9. The form of classical conditioning procedure in which the CS is presented a short time before the US is known as
- A. backward conditioning
B. simultaneous conditioning
C. temporal conditioning
D. forward conditioning
10. Driving across Wyoming parents ask their children to be patient and they will stop in the next town for an ice cream treat. One hundred and fifty miles later, a sign showing a giant ice cream cone comes into view. In this context the sign of the ice cream cone is a(n)
- A. conditioned stimulus
B. unconditioned stimulus
C. discriminant stimulus
D. secondary reinforcer
11. Ignoring a child's whining, a parent is attempting to
- A. punish behavior
B. condition behavior
C. reinforce behavior
D. extinguish behavior
12. High levels of the neurotransmitter dopamine in the ventral tegmental area of the brains of dogs have been shown to decrease latent inhibition. A study would likely find that compared to a general population of dogs who have also been conditioned to salivate in response to the sound of a bell, such dogs
- A. after this prior conditioning, could be more easily conditioned to respond with fear the sound of a bell than other dogs
B. would more easily experience renewal of the salivation response following extinction of the response
C. would be less likely to exhibit the same salivation response after hearing the sound of a tuning fork
D. would be less successful in higher-order conditioning

13. If a bell that has been conditioned to prompt salivation in a dog is paired with a flashing light, the light could begin to prompt salivation on its own. This is called
- A. operant conditioning
 - B. delay conditioning
 - C. second order conditioning
 - D. forward conditioning
14. A dormitory resident has been told by the R.A. that they are not permitted to use the common kitchen for one week because of a mess left in the kitchen. This is an example of
- A. negative punishment
 - B. negative reinforcement
 - C. positive punishment
 - D. positive reinforcement
15. A rat in a Skinner box presses a lever then receives a food pellet. Which of the following has occurred with regard to the behavior of pressing the lever?
- A. positive reinforcement
 - B. forward conditioning
 - C. backward conditioning
 - D. simultaneous conditioning
16. A dog is rewarded for coming to attention in front of the trainer. Then it is rewarded for standing on its hind legs. Then, the dog is rewarded for hopping. Finally, it is rewarded for hopping in a circle. What conditioning scenario does this training scenario exemplify?
- A. shaping
 - B. contiguity approach
 - C. secondary reinforcement
 - D. chaining
17. Pigeons were taught to peck for food when shown a picture of a tree. They learned to peck even when presented with images of trees they had never seen before. These results suggest the pigeons had undergone
- A. vicarious learning
 - B. insight learning
 - C. observational learning
 - D. abstract learning
18. Researchers in New Zealand presented crows with a problem to secure a food reward. The crows had to get a short stick by pulling up a string, use that stick to winkle out a long stick from a toolbox, and then use the long stick to extract food from a hole. Several of the captive crows were able to manage the task successfully, demonstrated that crows are capable of
- A. abstract learning
 - B. insight learning
 - C. observational learning
 - D. positive reinforcement
19. Stomach virus symptoms arrived for Bill an hour after he finished a burrito. For years afterwards, Bill could not eat a burrito without feeling nauseous. What occurred is a kind of
- A. positive reinforcement
 - B. negative reinforcement
 - C. classical conditioning
 - D. secondary reinforcement

20. In a classical conditioning experiment involving the sea slug *Aplysia* in which the animal was taught to retract its gill under a light touch, Kandel demonstrated that synapses were strengthened between sensory and motor neurons. This is known as
- A. synaptic pruning
 - B. neurogenesis
 - C. long-term potentiation
 - D. stimulus generalization
21. Which reinforcement schedule produces a behavioral response that is most resistant to extinction?
- A. variable ratio
 - B. fixed ratio
 - C. continuous
 - D. variable interval
22. Escape conditioning and avoidance conditioning are both forms of
- A. classical conditioning
 - B. punishment
 - C. negative reinforcement
 - D. secondary reinforcement
23. Ronaldo almost fell from a balcony as a child and has suffered from acrophobia (an irrational fear of heights) for his entire life. He consistently avoids even moderate high places. This behavior pattern is
- A. the result of classical conditioning
 - B. conditioned by negative reinforcement
 - C. will likely go away after a period of time if he avoids high places
 - D. results from spontaneous recovery
24. A pet parrot has a habit of squawking and chattering at the sound of the doorbell. The doorbell is replaced with a door-knocker. After six months, the doorbell is returned to operation and it is discovered that the sound of the bell no longer elicits the response. However, one day the distinctive pattern of squawking and chattering reappears, but now in response to the sound of the cell-phone vibrating on the counter-top. Which of the following best describes what happened?
- A. disinhibition
 - B. spontaneous recovery
 - C. stimulus generalization
 - D. second-order conditioning
25. First year medical school students often report difficulty retaining and recalling the large amounts of material they are expected to learn at the required pace. However, by the third or fourth month, most have developed a repertoire of learning strategies that make the process manageable. This process of 'learning to learn' is described as
- A. insight learning
 - B. abstract learning
 - C. learning sets
 - D. modelling
26. Which of the following is an example of positive punishment?
- A. loudly reprimanding a child in the grocery store
 - B. taking a television from a child's room for one week
 - C. encouraging homework by removing chores from the schedule
 - D. throwing a child into a pool to teach swimming the old-fashioned way

27. A parent is employing Bandura's techniques for observational learning to help their child become more courteous. As a first step they might
- A. provide positive reinforcement to encourage polite conversational styles
 - B. demonstrate the impolite forms of behavior they are interested in reducing
 - C. point out positive aspects in the behavior of the child's favorite fictional character
 - D. help the child remember episodes from the past where they acted with courtesy
28. Which of the following is a common factor in all forms of observational learning?
- A. imitation
 - B. reinforcement
 - C. latent learning
 - D. modelling
29. The behaviorist law of equipotentiality held that all forms of associative learning involve the same underlying mechanisms, suggests that any two stimuli can be associated in the brain, regardless of their nature. Which of the following observed phenomena poses the most direct challenge to the law of equipotentiality?
- A. avoidance
 - B. instinctive predispositions
 - C. social learning
 - D. play behavior
30. Fear conditioning is thought to depend on an area of the brain called the
- A. amygdalla
 - B. substantia nigra
 - C. hypothalamus
 - D. reticular formation
31. Which of the following brain structures is not a link in the mesolimbic pathway?
- A. ventral tegmental area
 - B. medial forebrain bundle
 - C. nucleus accumbus
 - D. hippocampus
32. Which of the following phenomena in existing at all challenges to tenets of Skinnerian behaviorism?
- I. Observational learning
 - II. Overjustification
 - III. Latent learning
 - IV. Spontaneous recovery
- A. I only
 - B. II and III
 - C. I, II and III
 - D. I, II, III and IV
33. Which of the following describes sensitization of the sea slug *Aplysia* withdrawal reflex?
- A. A habituated sea slug is given a strong, noxious stimulus and responds to the next weak stimulus to the siphon by a rapid, enhanced withdrawal of the gill.
 - B. A sea slug is touched 10 – 15 times in rapid sequence, and the gill-withdrawal response decreases to about one-third of its initial intensity.
 - C. A weak touch to the siphon (CS) is followed immediately by a sharp blow to the tail or head (US), which evokes a marked gill-withdrawal response. After a series of such trials, the gill-withdrawal response to the CS alone is substantially enhanced.
 - D. A sharp blow to the tail or head (US) is followed immediately by a weak touch to the siphon (CS) which evokes a marked gill-withdrawal response. After a series of such trials, the gill-withdrawal response to the CS alone is substantially enhanced.

- 34.** Habituation and sensitization are both forms of
- A.** long-term potentiation
 - B.** classical conditioning
 - C.** non-associative learning
 - D.** negative feedback
- 35.** Rats were placed in a T-maze with one arm coloured white and the other black. One group of rats had 30 mins to explore this maze with no food present, and the rats were not removed as soon as they had reached the end of an arm. Food was then placed in one of the two arms. According to Skinnerian behaviorism, how would rats in the exploratory group be expected to perform in this experiment compared to a group that had not previously explored the maze?
- A.** The exploratory group would learn to go down the rewarded arm faster than the group that had not previously explored the maze.
 - B.** The exploratory group would not accept “escape” or “avoidance” in this situation though such behavior would likely be effective.
 - C.** No significant differences in behavior would be observed between the experimental and control groups.
 - D.** The exploratory group would be expected to perform less well on this task than the control group.
- 36.** When a novel stimulus such as Pavlov’s bell is presented for the very first time, the dog shows a reflexive orienting response -- perhaps a startle response -- to that stimulus. With successive applications of the stimulus, the magnitude of the orienting response will progressively diminish. If this process of diminishing the orienting response is carried out prior to pairing the bell with the unconditioned stimulus
- A.** Conditioning will occur, but the CR will be acquired at a slower rate than if there had been no prior work to diminish the orienting response.
 - B.** Conditioning will occur with the CR being acquired at faster rate than if there had been no prior work to diminish the orienting response.
 - C.** Conditioning will occur with the learning curve exhibiting a hyperbolic shape instead of the sigmoidal shape typical of trials with no prior work to diminish the orienting response.
 - D.** Conditioning will not occur.
- 37.** If neuron A synapses onto neuron B, and the two repeatedly fire together, A comes to release more neurotransmitter into the synapse with B than it did before conditioning. This is called
- A.** long-term potentiation
 - B.** neuromodulation
 - C.** neurotransmission
 - D.** presynaptic facilitation

38. According to B.F. Skinner, a proper analysis of an individual's personality will focus on
- I. Traits
 - II. Dispositions and motives
 - III. Discriminative stimuli in their environment
 - IV. Reinforcement history
- A. I and II
B. I and IV
C. III and IV
D. I, II, III and IV
39. Which of the following statements is consistent with Thorndike's empirical law of effect?
- A. Reinforcement contingency is determined by the probability of the event given a particular response.
B. The value attached to any potentially reinforcing event is subjective.
C. The individual's cognitive expectations influence the degree of reinforcement.
D. Choice manifests itself in behavior.
40. As opposed to the contiguity model, according to the contingency model of classical conditioning
- A. conditioning depends on how well the US predicts the CS
B. the CS eventually substitutes for the US
C. timing is critical for behavioral conditioning
D. conditioning depends on a thought process
41. According to Bandura, which of the following represents the best example of learning through percept?
- A. improving tennis form by watching a professional tennis match
B. gaining the understanding of the function of a hormone in a physiology lecture course
C. internalizing parental habits of argumentativeness
D. learning by direct consequence not to touch a hot stove
42. According to Bandura's cognitive theory of learning, students in MCAT preparatory courses who take a practice test prior to content review may impede learning if the experience lowers which of the following?
- A. social reinforcement
B. response consequences
C. learned helplessness
D. self-efficacy expectations
43. Analyzed within the Skinnerian framework, what aspect of gambling behavior makes the behavioral pattern so difficult to stop for many people?
- A. habituation
B. vicarious imitation of successful models
C. the pattern of reinforcement
D. learned helplessness

44. A real estate sales agent paid on commission is rewarded on what type of schedule?
- A. fixed interval
 - B. fixed ratio
 - C. variable interval
 - D. variable ratio
45. In a major break from earlier theories of social learning, Bandura disagreed with the idea that
- A. imitative behavior patterns are acquired primarily through reinforcement
 - B. reinforcement values are defined subjectively
 - C. reinforcement is necessary for learning to occur
 - D. curiosity is an intrinsic motivation
46. The family dog associates the sound of the doorbell with a visitor at the door and barks every time they hear a doorbell, even if the doorbell is coming from the TV. Eventually, they learn that only the real doorbell means a visitor is present and no longer bark at the TV. This is an example of
- A. second-order conditioning
 - B. negative reinforcement
 - C. stimulus discrimination
 - D. response extinction
47. It takes longer for a familiar stimulus to become a CS than it does for a novel stimulus to become a CS, when the stimulus is subsequently paired with an effective US. This is due to
- A. the blocking effect
 - B. latent inhibition
 - C. conditioned suppression
 - D. conditioned inhibition
48. After maintaining a strict calorie restricted diet for a week, you give into temptation and eat three donuts in the breakroom at work. Next, you're out to lunch and eat a double cheeseburger and fries. When you get home, you say 'what the heck? why not?' and so you eat a whole pizza and drink two liters of soda. Within the framework of classical and operant conditioning you just experienced
- A. a positive reinforcement loop
 - B. an extinction burst
 - C. reinstatement
 - D. learned helplessness
49. Habituation is different from extinction in that
- A. Habituation usually refers to a reduction of response to an unconditioned stimulus or an innate behavior.
 - B. Extinction is a form of learning in which an organism decreases or ceases to respond to a stimulus after repeated presentations.
 - C. Many anxiety disorders represent a failure to become habituated to aversive stimuli.
 - D. Habituation is a form of respondent fatigue.
50. Change in behavior or potential behavior that occurs as a result of experience must be the product of
- A. reinforcement
 - B. conditioning
 - C. adaptation
 - D. learning