Chapter 7: Learning

Key Terms

Writing Definitions

1. Learning is any relatively permanent change in an organism’s behavior due to experience. (p. 291)

2. In associative learning, organisms learn that certain events occur together. Two variations of associative learning are classical conditioning and operant conditioning. (p. 292)

3. Also known as Pavlovian conditioning, classical conditioning is a type of learning in which a neutral stimulus becomes capable of triggering a conditioned response after having become associated with an unconditioned stimulus. (p. 294)

4. Behaviorism is the view that psychology should be an objective science that studies only observable behaviors without reference to mental processes. (p. 294)

   Example: Because he was an early advocate of the study of observable behavior, John Watson is often called the father of behaviorism.

5. In classical conditioning, the unconditioned response (UR) is the unlearned, involuntary response to the unconditioned stimulus. (p. 295)

6. In classical conditioning, the unconditioned stimulus (US) is the stimulus that naturally and automatically triggers the reflexive unconditioned response. (p. 295)

7. In classical conditioning, the conditioned response (CR) is the learned response to a previously neutral conditioned stimulus, which results from the acquired association between the CS and US. (p. 295)

8. In classical conditioning, the conditioned stimulus (CS) is an originally neutral stimulus that comes to trigger a CR after association with an unconditioned stimulus. (p. 295)

9. In a learning experiment, acquisition refers to the initial stage of conditioning in which the new response is established and gradually strengthened. In operant conditioning, it is the strengthening of a reinforced response. (p. 296)

10. In higher-order conditioning, pairing an established conditioned stimulus (CS) with a neutral stimulus may cause the latter to become a weak CS itself. (p. 296)

11. Extinction refers to the weakening of a CR when the CS is no longer followed by the US; in operant conditioning extinction occurs when a response is no longer reinforced. (p. 297)

12. Spontaneous recovery is the reappearance of an extinguished CR after a rest period. (p. 298)

13. Generalization refers to the tendency, once a response has been conditioned, for stimuli similar to the original CS to evoke a CR. (p. 298)

14. Discrimination in classical conditioning refers to the ability to distinguish the CS from similar stimuli that do not signal a US. In operant conditioning, it refers to responding differently to stimuli that signal a behavior will be reinforced or will not be reinforced. (p. 299)

15. Respondent behavior is that which occurs as an automatic response to some stimulus. (p. 304)

   Example: In classical conditioning, conditioned and unconditioned responses are examples of respondent behavior in that they are automatic responses triggered by specific stimuli.

16. Operant conditioning is a type of learning in which behavior is strengthened if followed by a reinforcer or diminished if followed by a punisher. (p. 304)

   Example: Unlike classical conditioning, which works on automatic behaviors, operant conditioning works on behaviors that operate on the environment.

17. Operant behavior is behavior that operates on the environment, producing consequences. (p. 304)

18. B. F. Skinner proposed the law of effect, which states that behaviors followed by favorable consequences are likely to recur, and that behaviors followed by unfavorable consequences become less likely. (p. 305)

19. An operant chamber (Skinner box) is an experimental chamber for the operant conditioning of an animal such as a pigeon or rat. The controlled environment enables the investigator to present visual or auditory stimuli, deliver reinforcement or punishment, and precisely measure simple responses such as bar presses or key pecking. (p. 305)

20. Shaping is the operant conditioning procedure for establishing a new response by reinforcing successive approximations of the desired behavior. (p. 305)

21. In operant conditioning, a reinforcer is any event that strengthens the behavior it follows. (p. 307)

22. In operant conditioning, positive reinforcement strengthens a response by presenting a typically pleasurable stimulus after that response. (p. 307)

23. In operant conditioning, negative reinforcement strengthens a response by removing an aversive stimulus after that response. (p. 307)

24. The powers of primary reinforcers are inborn and do not depend on learning. (p. 307)

25. Conditioned reinforcers are stimuli that acquire their reinforcing power through their association with primary reinforcers; also called secondary reinforcers. (p. 307)
26. **Continuous reinforcement** is the operant procedure of reinforcing the desired response every time it occurs. In promoting the acquisition of a new response it is best to use continuous reinforcement. (p. 308)

27. **Partial (intermittent) reinforcement** is the operant procedure of reinforcing a response intermittently. A response that has been partially reinforced is much more resistant to extinction than one that has been continuously reinforced. (p. 308)

28. In operant conditioning, a **fixed-ratio schedule** is one in which reinforcement is presented after a set number of responses. (p. 309)

   *Example:* Continuous reinforcement is a special kind of fixed-ratio schedule: Reinforcement is presented after each response, so the ratio of reinforcements to responses is one to one.

29. In operant conditioning, a **variable-ratio schedule** is one in which reinforcement is presented after a varying number of responses. (p. 309)

30. In operant conditioning, a **fixed-interval schedule** is one in which a response is reinforced after a specified time has elapsed. (p. 309)

31. In operant conditioning, a **variable-interval schedule** is one in which responses are reinforced after varying intervals of time. (p. 309)

32. In operant conditioning, **punishment** is the presentation of an aversive stimulus, such as shock, which decreases the behavior it follows. (p. 310)

   *Memory aid:* People often confuse negative reinforcement and punishment. The former strengthens behavior, while the latter weakens it.

33. A **cognitive map** is a mental picture of one's environment. (p. 312)

34. **Latent learning** is learning that occurs in the absence of reinforcement but only becomes apparent when there is an incentive to demonstrate it. (p. 312)

35. **Intrinsic motivation** is the desire to perform a behavior for its own sake, rather than for some external reason, and to be effective. (p. 312)

   *Memory aid:* Intrinsic means "internal": A person who is **intrinsically motivated** is motivated from within.

36. **Extrinsic motivation** is the desire to perform a behavior in order to obtain a reward or avoid a punishment. (p. 312)

   *Memory aid:* Extrinsic means "external": A person who is extrinsically motivated is motivated by some outside factor.

37. **Observational learning** is learning by watching and imitating the behavior of others. (p. 317)

38. **Modeling** is the process of watching and then imitating a specific behavior and is thus an important means through which observational learning occurs. (p. 317)

39. *Found in the brain's frontal lobe, mirror neurons may be the neural basis for observational learning.* These neurons generate impulses when certain actions are performed or when another individual who performs those actions is observed. (p. 318)

40. **Prosocial behavior** is positive, helpful, and constructive and is subject to the same principles of observational learning as is undesirable behavior, such as aggression. (p. 321)