

**True/False**

1. S-R theories of learning in general assume that learning takes place more or less automatically, and do not require and “thought” by humans or nonhumans.

\*a. True

b. False      REF: P.18

2. Hull’s theory of learning is represented in a mathematical equation and includes “expectancy” as an important variable.

a. True

\*b. False      REF: P.19

3. In Hull’s theory, if drive persists, all behavior is temporarily inhibited. This is called reactive inhibition.

\*a. True

b. False      REF: P.21

4. In Hull’s theory, the varying levels of associative strengths between a stimulus environment and the behaviors associated with that environment are called “habit hierarchy”.

\*a. True

b. False      REF: P.21

5. According to Hull, habit strength increases as drive increases, and it decreases when drive decreases.

a. True

\*b. False      REF: P.20-21

6. For Hull, habit strength, symbolized as sHr, is analogous to learning.

\*a. True

b. False      REF: P.19

7. In the famous experiment by Crespi (1942), shifts in the level of drive produced corresponding shifts in the strength of behavior for rats running down an alley for food reward.

a. True

\*b. False      REF: P.24

8. According to Rescorla and Solomon, the  $r_G$ - $s_G$  mechanisms operates in the central nervous system to guide organisms to reward.

\*a. True

b. False      REF: P.25

9. According to Guthrie, in order to have learning the organism must experience drive reduction following the occurrence of a response.

a. True

\*b. False      REF: P.25

10. Guthrie believed that practice improves the efficiency of learned behavior in part because with practice, the animals learn to associate more and more cues with the learned response.

\*a. True

b. False      REF: P.27

11. Tolman's theory represents a more "cognitive" view of the learning process than Hull's theory.

\*a. True

b. False      REF: P.31

12. Tolman believed that deprivation produces an internal drive state that increases demand for the goal object.

\*a. True

b. False      REF: P.31

13. Tolman, like Hull, believed that learning was automatic and mechanistic.

a. True

\*b. False      REF: P.31

14. Tolman's cathexis concept is comparable to Hull's view of acquired drive.

\*a. True

b. False      REF: P.31

15. When cognitive views of learning gained popularity in the 1970s, Tolman's work gained wider approval than it previously had.

\*a. True

b. False      REF: P.32

### Fill-in-the-Blank

16. Of the various variables in the equation that Hull proposed to predict behavior, the one that most clearly represents the learning process is called \_\_\_\_\_.

a. habit strength      REF: P. 19

17. According to Hull, we have biological needs that correspond to psychological \_\_\_\_\_.

a. drives      REF: P. 21

18. Hull suggested that when animals respond to achieve a reward, \_\_\_\_\_ accrues to any response that is not consistently rewarded.

a. conditioned inhibition      REF: P. 21

19. \_\_\_\_\_ was the theorist who suggested that environmental cues associated with reward could elicit anticipatory goal responses that motive approach behavior.

a. Spence REF: P. 23

20. Guthrie suggested that \_\_\_\_\_ was sufficient for learning to occur.

a. contiguity REF: P. 25

21. Guthrie believed that \_\_\_\_\_ and \_\_\_\_\_ determined which response a particular stimulus would produce.

a. recency; frequency REF: P. 29

22. According to Tolman, basic drives such as hunger can motivate behavior, but this motivation can be transferred to environmental events. This transference process is called \_\_\_\_\_.

a. cathexis REF: P. 31

23. Tolman's equivalence belief principle is analogous to Spence's \_\_\_\_\_.

a. anticipatory goal response REF: P. 31

24. \_\_\_\_\_ believed that learning occurs in a single trial.

a. Guthrie REF: P. 29

25. Tolman believed that behavior was motivated by the expectation of future \_\_\_\_\_ or \_\_\_\_\_.

a. reward; punishment REF: P. 34

### Multiple-Choice

26. In Hull's theory, which of the following variables represents the influence of reward on performance?

a. H

b. D

\*c. K

d. I

REF: P. 19

27. Hull proposed that neutral events may arouse an internal drive state. What principles of learning account for acquired drives?

- a. instrumental conditioning principles
- \*b. classical conditioning principles
- c. counterconditioning principles
- d. operant conditioning principles

REF: P. 20

28. Hull called the learning of a response “habit strength”. Which of the following conditions is necessary for the development of habit strength?

- a. The learner must experience no drive at the time that habit strength is being acquired.
- b. The learner must experience conditioned inhibition following the completion of a response.
- \*c. The learner must experience drive reduction following the completion of a response.
- d. All competing responses must be extinguished.

REF: P. 20-21

29. Crespi studied how hungry rats change their running speed when the amount of reward suddenly changed. His findings forced Hull to conclude that:

- \*a. the amount of reward directly influences the motivation for behavior.
- b. the amount of reward has no direct effect on motivation.
- c. sudden change in reward causes forgetting of the learned response.
- d. changes in reward attract the animal’s attention and increases habit strength.

REF: P. 24

30. Hull’s theory assumes that only those events that reduce drives are rewards for behavior. This assumption was shown inaccurate by Olds and Milner who found that:

- a. rats would bar press for food even when not hungry.
- b. rats would bar press for a saccharine solution that has no nutritional value.
- c. rats would bar press for the opportunity to explore a new environment.
- \*d. rats would bar press for electrical stimulation of the brain.

REF: P. 22

31. Spence attempted to explain how reward influences the strength of behavior leading to reward. He assumed that experiences with reward produce:

- a. conditioning of an internal state that reinforces the behavior leading to reward.
- \*b. conditioning of an anticipatory goal response that produces internal stimulus changes that motivate behavior leading to reward.
- c. an internal cognitive map of the environment guiding behavior to obtain reward.
- d. a state of excitement that leads to extinction of the learned response.

REF: P. 23

32. Spence claimed that the influence of reward on instrumental behavior is controlled by establishment of an  $r_g$ - $s_g$  mechanism. What controls the acquisition of the  $r_g$ - $s_g$  mechanism?

- a. The law of effect
- b. The law of exercise
- c. Cognitive maps
- \*d. Pavlovian conditioning

REF: P. 24

33. Responses no longer followed by reward usually weaken in strength and disappear. According to Amsel, the extinction of a response is due to the occurrence of:

- \*a. frustration.
- b. anxiety.
- c. repression.
- d. fear.

REF: P. 24

34. Sheffield argued that drive \_\_\_\_\_ not drive reduction strengthens instrumental behavior.

- a. deduction
- \*b. induction
- c. conduction
- d. reduction

REF: P. 23

35. Spence's anticipatory goal response is analogous to which type for motivation?

- a. achievement
- b. drive
- c. esteem
- \*d. incentive

REF: P. 23

36. Rescorla and Solomon concluded that the influence of incentive factors such as reward, fear, frustrations, and relief are due to the establishment of \_\_\_\_\_ motive states.

- a. peripheral
- b. autonomic
- \*c. central
- d. mental

REF: P. 25

37. Which of the following is not true regarding Guthrie's theory of learning?

- a. The maximum strength of a S-R association is reached in a single conditioning trial.
- \*b. The strength of the S-R association increases with reinforcement or reward.
- c. Reward serves change the stimulus situation so that new behaviors are not conditioned.
- d. Although many stimuli are present during learning, only some of these stimuli will be attended to.

REF: P. 25

38. Joan is a 5-year-old child who is having a temper tantrum in the store. Her mother has threatened her with punishment if she does not stop crying but this has no effect. According to Guthrie's theory, Joan is still crying because:

- a. Joan does not believe her mother's threats.
- b. Joan enjoys crying in the store.
- c. Joan does not have enough habit strength to stop crying.
- \*d. Joan has not yet experienced contiguity between the threat and punishment.

REF: P. 26

39. According to the text, the major difficulty with Guthrie's theory of learning is his assumption that:

- \*a. reward changes the stimulus conditions that are needed to elicit behavior.
- b. drive reduction is necessary for learning to take place.
- c. punishment is effective in controlling behavior.
- d. learning of a response can occur in a single trial.

REF: P. 29

40. Voeks conducted a study in which the conditioning of a human eyeblink response occurred in a single trial. This result favors \_\_\_\_\_ theory.

- a. Spence's
- b. Hull's
- \*c. Guthrie's
- d. Skinner's

REF: P. 29

41. Hull believed that behavior was an automatic response to a stimulus. In contrast, Tolman believed that behavior:

- \*a. has purpose and direction.
- b. was under the control of instincts.
- c. resulted from the formation of S-R associations.
- d. is controlled by learning only.

REF: P. 31

42. According to Tolman's view of motivation, depriving a rat of food:

- a. increases the rat's tendency to explore its environment.
- \*b. produces an internal state for food called demand.
- c. activates the innate learning process allowing the rat to find food.
- d. automatically reduces the activity level of the rat.

REF: P. 31

43. Tolman used the term \_\_\_\_\_ to indicate that objects acquire reward value through the learning process.

- a. incentive
- b. acquired drive
- c. drive reduction
- \*d. cathexis

REF: P. 31

44. Tolman's view that expectation of reward guides behavior is represented in Hull's theory by:

- a. drive reduction.
- b. habit strength.
- \*c.  $r_G$ - $s_G$ .
- d.  $s_F$ - $r_F$



REF: P. 31

45. Guthrie proposed that \_\_\_\_\_ was sufficient to establish an S-R connection.

- a. timing
- b. similarity
- c. contrast
- \*d. contiguity

REF: P. 25

46. According to Guthrie, why would punishment not be successful in eliminating a child's tendency to hit his/her sibling?

- \*a. because the punished response (hitting sibling) is not incompatible with the response elicited by punishment (aggression).
- b. because of the presence of a reward in the situation.
- c. because sibling rivalry is a natural human tendency
- d. because of the formation of S-R associations.

ANS: A      REF: P. 27

47. Which of the following is not a reason offered by Guthrie for gradual improvement of performance during the conditioning process:

- a. although many stimuli are present during the initial conditioning procedure, subjects attend to only some stimuli present during initial conditioning.
- \*b. a subject always forms many hypothetical constructs.
- c. as more stimuli come to elicit responses, the strength of the response increases.
- d. a complex behavior contains many response elements. As each response element becomes conditioned to the stimulus, the efficiency of the behavior will improve.

REF: P. 27

48. According to Guthrie, why is contiguity between a response and a reward important?

- \*a. Contiguity prevents the acquisition of competing associations.
- b. Guthrie believed that contiguity has little direct effect on behavior.
- c. Contiguity combats memory delays in rodents and other animal subjects.
- d. Contiguity combines with contrast to solidify the meaning of the stimulus.

REF: P. 28

49. As described in the text, a major change has taken place in the nature of learning theory since the late 1960s. This change is an increasing focus on:

- a. drive reduction.
- b. instincts.
- \*c. cognitions.
- d. animal behavior.

REF: P. 32

50. A major difference between the various S-R theories presented in the text involves:

- a. the role of punishment.
- b. the role of motivation.
- c. the role of learning.
- \*d. the role of reinforcement.

REF: ENTIRE CHAPTER

#### SHORT ANSWER/ESSAY

51. List and describe the four strengths of Guthrie's theory.

A.

- 1) Punishment can intensify an inappropriate behavior when punishment elicits a behavior compatible with the punished response. However, sometimes punishment can suppress the punished response even if it elicits behaviors compatible with the punished response.
- 2) Contiguity between a reward and a response is critical to prevent the acquisition of competing associations.
- 3) Only a portion of environmental stimuli are active at a given time; therefore, only some of the potential CSs become conditioned to the response.
- 4) Guthrie's methods of breaking habits have become widely adopted.

REF: P. 28

52. How has the growth of Cognitive Psychology as an area of Psychology changed the way Tolman's theories are viewed?

A.

Tolman's views are much more accepted today. For example, the relationship between learning and reward and the role motivation is more widely accepted. Behavior is also seen as being goal directed, purposeful, and flexible, consistent with Tolman's theories.

REF: PP. 30-32