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Chapter: Chapter 02: Testbank, Approaches to the Study of Animal Behavior

Multiple Choice

1. The idea of intellectual continuity among animals was key to the thinking of which of the following individuals?

- A) Aristotle
- B) Darwin
- C) Romanes
- D) all of the above

Ans: D

Difficulty: MEDIUM

Feedback: The Beginnings.

2. Darwin described the behavior of animals by using terms that denote human emotions and feelings, e.g., ants “despaired”, dogs expressed “pleasure” and “love”, etc. He did this because

- A) he considered the minds of humans and animals to be similar in complexity.
- B) he considered the minds of humans and animals to be similar in kind and to differ only in complexity.
- C) he was an excellent theorist but not a very good scientist.
- D) such explanations made his ideas more readily acceptable to the general population.

Ans: B

Difficulty: MEDIUM

Feedback: The Beginnings

3. George J. Romanes suggested that which of the following emotions appeared, evolutionarily, as early as in the larvae of insects or in segmented worms?

- A) jealousy, anger

- B) pride, resentment
- C) shame, deceit
- D) surprise, fear

Ans: D

Difficulty: DIFFICULT

Feedback: The Beginnings

4. An interest in phylogeny (the evolutionary history of a species) is strongly characteristic of the work of

- A) Lorenz
- B) Skinner
- C) Thorndike
- D) von Frisch

Ans: B

Difficulty: MEDIUM

Feedback: Classical Ethology.

5. Knowing that some male empidid flies present females with a meal prior to attempting to mate with them helps us to understand the behavior of *Hilara sator*, where the male presents an elaborate silken balloon to the female before mating. This illustrates the importance of the

- A) anecdotal method
- B) comparative method
- C) continuity method
- D) experimental method

Ans: B

Difficulty: MEDIUM

Feedback: Classical Ethology.

6. Presenting a female empidid fly with a prey item such as an insect, wrapping a prey item in an elaborate cocoon, or presenting an elaborate, but empty, silken balloon all seem to revolve around the fact that

- A) a male may easily become a meal rather than a mate for the predacious female.
- B) males can demonstrate their potential quality as a mate by presenting a nuptial gift.
- C) some female empidid flies are less intelligent than others and don't realize they are being fooled.
- D) some female empidid fly species need more protein than others.

Ans: A
Difficulty: MEDIUM
Feedback: Classical Ethology.

7. The ethological approach to the study of behavior received significant international recognition when the Nobel Prize in Physiology or Medicine was awarded in 1973 to
A) Barlow, Dewsbury, and Hodos.
B) Darwin, Spencer, and Romanes.
C) Loeb, Jennings, and Whitman.
D) Lorenz, Tinbergen, and von Frisch.

Ans: D
Difficulty: EASY
Feedback: Classical Ethology.

8. Which of the following individuals is more closely associated with ethology than with comparative psychology?
A) Lorenz
B) Pavlov
C) Skinner
D) Thorndike

Ans: A
Difficulty: EASY
Feedback: Classical Ethology.

9. A motor response characterized as being stereotyped, elicited by simple but specific environmental stimuli, and continuing to completion even if the eliciting stimulus is removed may safely be classified as a(n)
A) conditioned response.
B) fixed action pattern.
C) releaser.
D) sign stimulus.

Ans: B
Difficulty: MEDIUM
Feedback: Classical Ethology.

10. When a greylag goose retrieves an egg from outside the nest, she extends her neck, places the underside of her bill against the egg's far surface, and bends her neck to bring the egg into the nest with a chin-tucking movement. If the egg veers, she adjusts the position of her bill by moving it from side-to-side to correct the direction of the roll. The chin-tucking motion which moves the egg in the direction of the nest is an example of a:

- A) fixed action pattern.
- B) reflex arc.
- C) sign stimulus.
- D) taxis.

Ans: A
Difficulty: MEDIUM
Feedback: Classical Ethology.

11. When a greylag goose retrieves an egg from outside the nest, she extends her neck, places the underside of her bill against the egg's far surface, and bends her neck to bring the egg into the nest with a chin-tucking movement. If the egg veers, she adjusts the position of her bill by moving it from side-to-side to correct the direction of the roll. The side-to-side movements of the head which correct the direction of the roll are called a

- A) fixed action pattern.
- B) reflex arc.
- C) sign stimulus.
- D) taxis.

Ans: D
Difficulty: DIFFICULT
Feedback: Classical Ethology.

12. When a greylag goose retrieves an egg from outside the nest, she extends her neck, places the underside of her bill against the egg's far surface, and bends her neck to bring the egg into the nest with a chin-tucking movement. If the egg veers, she adjusts the position of her bill by moving it from side-to-side to correct the direction of the roll. If the egg is removed after the goose has begun the retrieval process, what will happen?

- A) The goose will continue with the chin-tuck, but the side-to-side movements will disappear.
- B) The goose will continue with the side-to-side movements, but the chin-tuck will disappear.
- C) The goose will continue with both the chin-tuck and the side-to-side movements.
- D) The goose will immediately stop the retrieval behavior altogether.

Ans: A

Difficulty: MEDIUM
Feedback: Classical Ethology.

13. Whitman and Heinroth each, independently, suggested that some patterns of movement might be just as reliable as morphological characters in defining particular species of birds. This is because

- A) each individual bird is a unique combination of hereditary and environmental influences.
- B) the displays of all species are often exceptionally similar to one another.
- C) the displays within different species are often exceptionally constant.
- D) the displays within a species are often quite variable from individual to individual.

Ans: C
Difficulty: DIFFICULT
Feedback: Classical Ethology.

14. Barlow (1968) recommended using the term *modal action pattern* (MAP) rather than *fixed action pattern* (FAP) because he believed that most patterns of behavior are

- A) much more stereotyped than suggested by the notion of the FAP.
- B) not as stereotyped as suggested by the notion of the FAP.
- C) performed by most of the members of a species, but with a small proportion performing an alternative display.
- D) very stereotyped, but a few patterns are much less so.

Ans: B
Difficulty: MEDIUM
Feedback: Classical Ethology.

15. The individual who suggested using the term *modal action pattern* (MAP) rather than *fixed action pattern* (FAP) was

- A) Barlow
- B) Heinroth
- C) Lorenz
- D) Whitman

Ans: A
Difficulty: EASY
Feedback: Classical Ethology.

16. A *sign stimulus*

- A) allows us to tell one species from another.
- B) is located in the environment.
- C) is located within the individual.
- D) is, most often, a very complex combination of stimuli.

Ans: B

Difficulty: MEDIUM

Feedback: Classical Ethology.

17. A *releaser* is technically a type of

- A) fixed action pattern.
- B) innate releasing mechanism.
- C) modal action pattern.
- D) sign stimulus.

Ans: D

Difficulty: DIFFICULT

Feedback: Classical Ethology.

18. That a male European robin will attack a tuft of red feathers as readily as he will another male robin indicates that

- A) an attack will be produced by almost anything.
- B) intruding males and females will be attacked equally often.
- C) stimulation of attack behavior requires a complex combination of stimuli.
- D) the red feathers serve as a sign stimulus for attack behavior.

Ans: D

Difficulty: MEDIUM

Feedback: Classical Ethology.

19. A situation in which one fixed action pattern brings an animal into a situation that evokes the next fixed action pattern is called a

- A) chain of reactions.
- B) complex of behaviors.
- C) modal stimulus.
- D) tropism.

Ans: A

Difficulty: EASY

Feedback: Classical Ethology.

20. If a male 3-spined stickleback performs a zig-zag dance, the female is most likely to respond by

- A) approaching the male.
- B) following the male.
- C) performing a head-up posture.
- D) releasing gametes.

Ans: A

Difficulty: DIFFICULT

Feedback: Classical Ethology.

21. Which of the following statements regarding *chains of reactions* is FALSE?

- A) Chains of reactions must be quite rigid to accomplish their function.
- B) In a chain of reactions, a particular behavior is more likely to be followed by certain actions than by others.
- C) Some actions may be repeated many times if one partner is less motivated than the other.
- D) There are often many deviations in the precise order of events in reaction chains.

Ans: A

Difficulty: MEDIUM

Feedback: Classical Ethology.

22. An ethologist is more likely to view living organisms

- A) as a collection of behavior patterns, many of which are innate.
- B) in terms of development and the degree of modifiability of their behavior.
- C) as the result of certain biophysical processes.
- D) as most productively studied under the controlled conditions of the laboratory.

Ans: A

Difficulty: MEDIUM

Feedback: Classical Ethology/Comparative Psychology.

23. "In no case may we interpret an action as the outcome of an exercise of higher psychological faculty, if it can be interpreted as the outcome of the exercise of one which stands lower in the psychological scale." This quote is from

- A) Darwin.
- B) Morgan.
- C) Romanes.
- D) Tinbergen.

Ans: B

Difficulty: EASY

Feedback: Comparative Psychology.

24. Morgan's Canon (1894) suggests that

- A) reference to an animal's feelings and thought processes are especially useful in interpreting an animal's behavior.
- B) the anecdotal tradition begun by Romanes was the most appropriate way to study animal behavior.
- C) when two explanations for a behavior appear equally valid, the more complex is preferred.
- D) when two explanations for a behavior appear equally valid, the simpler is preferred.

Ans: D

Difficulty: MEDIUM

Feedback: Comparative Psychology.

25. Which of the following would be more closely associated with comparative psychology than with ethology?

- A) FAP
- B) IRM
- C) MAP
- D) UCS

Ans: D

Difficulty: MEDIUM

Feedback: Classical Ethology/Comparative Psychology.

26. If you are working in a laboratory, trying to establish the details of the way an animal learns a new behavior, you are most likely a(n)

- A) comparative psychologist.
- B) ecologist.

- C) ethologist.
- D) sociobiologist.

Ans: A

Difficulty: EASY

Feedback: Comparative Psychology.

27. The idea that responses followed by a “satisfying” state of affairs will tend to be repeated is summarized in

- A) Morgan’s Canon.
- B) the Conditioned Reflex.
- C) the Law of Classical Conditioning.
- D) the Law of Effect.

Ans: D

Difficulty: MEDIUM

Feedback: Comparative Psychology.

28. Which of the following individuals is most closely associated with the development of puzzle boxes that provided an objective, quantifiable measure of learning progress?

- A) Morgan
- B) Lorenz
- C) Pavlov
- D) Thorndike

Ans: D

Difficulty: EASY

Feedback: Comparative Psychology.

29. In the familiar experiment in which a dog was trained to salivate at the sound of a bell, the bell eventually became a(n)

- A) conditioned response.
- B) conditioned stimulus.
- C) neutral stimulus.
- D) unconditioned stimulus.

Ans: B

Difficulty: MEDIUM

Feedback: Comparative Psychology.

30. The school of psychology known as Behaviorism is known for its emphasis on
- A) measuring an animal's mental capacity.
 - B) studying the behavior of animals as it is performed naturally in the field.
 - C) studying the directly observable relationship between a stimulus and the behavior it produces.
 - D) studying the innate behaviors common to all organisms.

Ans: C

Difficulty: MEDIUM

Feedback: Comparative Psychology.

31. The idea that the entire cerebral cortex, rather than specific parts of it, was involved in complex problem solving is most closely associated with
- A) Beach.
 - B) Carpenter.
 - C) Lashley.
 - D) Schneirla.

Ans: C

Difficulty: MEDIUM

Feedback: Comparative Psychology.

32. The application of evolutionary theory to social behavior is most closely associated with the field of
- A) behaviorism.
 - B) comparative psychology.
 - C) ethology.
 - D) sociobiology.

Ans: D

Difficulty: EASY

Feedback: Sociobiology/Behavioral Ecology.

33. Some of the concepts important to sociobiology were developed in response to issues that seemed inconsistent with natural selection occurring at the level of the individual, such as
- A) bright coloration in males of many species of songbirds.
 - B) camouflaging coloration in a number of prey species.

- C) evidence of several mass extinctions having occurred over time.
- D) sterile castes in ants, bees, and wasps.

Ans: D

Difficulty: DIFFICULT

Feedback: Sociobiology/Behavioral Ecology.

34. One of the key concepts in sociobiology is that of *inclusive fitness*. Inclusive fitness differs from *direct fitness* by counting to varying degrees

- A) all offspring, personal or of relatives, that are alive because of the actions of the individual.
- B) all personal offspring produced by a whole population, rather than simply by an individual.
- C) all personal offspring, and all offspring of one's own direct descendents.
- D) all personal offspring produced, whether they survive or not.

Ans: A

Difficulty: MEDIUM

Feedback: Sociobiology/Behavioral Ecology.

35. The notion of *inclusive fitness* was first introduced by

- A) Darwin.
- B) Hamilton.
- C) Lorenz.
- D) Wilson.

Ans: B

Difficulty: MEDIUM

Feedback: Sociobiology/Behavioral Ecology.

36. The relatively new field of sociobiology stimulated a great deal of research because it provided a framework within which to test hypotheses. Most of the hypotheses tested, however, dealt with only one of the four questions about animal behavior, and that was the behavior's

- A) development.
- B) evolution.
- C) mechanism.
- D) survival value.

Ans: D

Difficulty: EASY

Feedback: Sociobiology/Behavioral Ecology.

37. When Marion Stamp Dawkins wrote, “Genes operate through making bodies do things....” He was suggesting that more emphasis needed to be placed on research dealing with questions such as

- A) adaptive function.
- B) changes over evolutionary time.
- C) physiological mechanisms.
- D) survival value.

Ans: C

Difficulty: DIFFICULT

Feedback: Sociobiology/Behavioral Ecology.

38. A difference between field studies conducted now and those of the pioneering researchers in ethology is that the earlier field studies

- A) began with a clearly testable hypothesis.
- B) focused on the consequences of a behavior rather than its causes.
- C) focused on the costs and benefits of a behavior.
- D) tended to be purely descriptive.

Ans: D

Difficulty: EASY

Feedback: More Recent Trends.

39. Considering the activity of networks of genes instead of looking at the effect of one gene at a time is the focus of

- A) applied animal behavior.
- B) behavioral genomics
- C) cognitive ethology.
- D) neurobiology.

Ans: B

Difficulty: MEDIUM

Feedback: More Recent Trends.

40. Which of the following statements is TRUE?

- A) Modern research in animal behavior tends to focus almost exclusively on the question of development.
- B) Tinbergen's four questions remain an important driving force in modern animal behavior research, particularly in new areas that attempt to integrate work on two or more of the questions.
- C) While Tinbergen's four questions were a useful way of organizing the early work in animal behavior, they have now been replaced by newer questions.
- D) While tremendous breakthroughs have recently been made in research dealing with a behavior's survival value, progress in the understanding of its physiological mechanisms is lagging far behind.

Ans: B

Difficulty: MEDIUM

Feedback: More Recent Trends.

41. Training companion animals to work with handicapped individuals, providing for the welfare of farm animals, and working to conserve biodiversity are examples of topics that are important in

- A) applied animal behavior.
- B) behavioral genomics.
- C) cognitive ethology.
- D) neurobiology.

Ans: A

Difficulty: EASY

Feedback: More Recent Trends.