Chapter 2: The Social Brain

TEST BANK

Multiple Choice Questions

1. Phineas Gage's unfortunate accident helped scientists understand:
a. how vision works.
b. the structure of the brain.
c. the structure of neurons.
*d. the function of brain regions.
Learning Objective: 2.1
Cognitive Domain: Comprehension
Answer Location: Prologue: The Case of Phineas Gage
Question Type: MC

2. Phineas Gage's unfortunate accident helped scientists understand the functioning of the:
a. occipital lobes.
b. hypothalamus.
*c. frontal lobes.
d. parietal lobes.
Learning Objective: 2.1
Cognitive Domain: Comprehension
Answer Location: Prologue: The Case of Phineas Gage
Question Type: MC

3. One important effect of Phineas Gage's accident was the deterioration in his ability to:
a. see.
*b. think rationally.
c. empathize.
d. feel emotions.
Learning Objective: 2.1
Cognitive Domain: Comprehension
Answer Location: Prologue: The Case of Phineas Gage
Question Type: MC

4. The Greek philosopher Plato believed that thinking occurred in the:
*a. brain.
b. heart.
c. kidneys.
d. gall bladder.
Learning Objective: 2.1
Cognitive Domain: Knowledge
Answer Location: What is the brain?
Question Type: MC

5. The Greek philosopher Aristotle believed that the mind is in the:
a. brain.
*b. heart.
c. kidneys.
d. gall bladder.
Learning Objective: 2.1
Cognitive Domain: Knowledge
Answer Location: What is the brain?
Question Type: MC

6. Dualism is the principle that the mind is _____ the brain.
a. closely connected to
b. located within
*c. independent of
d. more important than
Learning Objective: 2.1
Cognitive Domain: Knowledge
Answer Location: What is the brain?
Question Type: MC

7. Dualists believe that:
a. the mind is ruled by nonconscious processes.
b. the mind and the brain are intimately connected.
c. the mind is impossible to study.
*d. the mind and brain are independent of one another.
Learning Objective: 2.1
Cognitive Domain: Comprehension
Answer Location: What is the brain?
Question Type: MC

8. A dualist would likely argue that:
a. rational, objective thought is impossible.
b. thinking is heavily influenced by brain physiology.
*c. rational, objective thought is possible.
d. brain physiology constrains thought.
Learning Objective: 2.1
Cognitive Domain: Comprehension
Answer Location: What is the brain?
Question Type: MC

9. Descartes argued that he could understand the workings of the mind through:
*a. introspection.
b. examination of the physical body.
c. psychoanalysis.
d. careful analysis of the structure of the brain.

Learning Objective: 2.1
Cognitive Domain: Knowledge
Answer Location: What is the brain?
Question Type: MC

10. Conventional Western approaches to medicine along with much of contemporary philosophy and psychology:
a. are no longer influenced by Cartesian dualism.
b. rely more on the analysis of the brain and physical body than introspection.
*c. are still influenced by Cartesian dualism.
d. rely more on introspection and the study of animal spirits than ever before.
Learning Objective: 2.1
Cognitive Domain: Analysis
Answer Location: What is the brain?
Question Type: MC

11. Who is the person credited with being the first to propose that the mind and body were intimately connected?
a. Descartes
b. Plato
c. Socrates
*d. Aristotle
Learning Objective: 2.1
Cognitive Domain: Knowledge
Answer Location: What is the brain?
Question Type: MC

12. The mind/body problem refers to the challenge of understanding:
a. how neurons enable thought.
*b. how the mind is related to the body.
c. how nonconscious processing is related to consciousness.
d. how the mind evolved in the body.
Learning Objective: 2.1
Cognitive Domain: Comprehension
Answer Location: What is the brain?
Question Type: MC

13. “Embodied cognition” is the idea that mental processes:
a. are essentially independent of the body.
b. are easy to locate in the brain.
c. can be completely understood by studying the physiologies of the brain and body.
*d. arise from and are encompassed by the sensory experiences of the body.
Learning Objective: 2.1
Cognitive Domain: Knowledge
Answer Location: What is the brain?
Question Type: MC

14. Professor Jackson strongly believes that our mental processes are deeply connected to the sensory experiences of our bodies. His belief reflects which principle?
*a. Embodied Cognition
b. Cartesian Dualism
c. Social Neuroscience
d. The Tripartite Brain Thesis
Learning Objective: 2.1
Cognitive Domain: Application
Answer Location: What is the brain?
Question Type: MC

15. Social neuroscience:
a. solves the mind/body problem.
*b. examines the reciprocal relationships between physiology and social behavior.
c. examines the evolution of the social brain.
d. maintains that the mind can be completely understood by studying the physiologies of the brain and body.
Learning Objective: 2.1
Cognitive Domain: Knowledge
Answer Location: What is the brain?
Question Type: MC

16. Brain mapping allows social neuroscientists to:
*a. make inferences about how particular brain regions are involved in mental processes.
b. establish better images of brain structures.
c. draw conclusions about the functions of various parts of the neuron.
d. compare social and nonsocial brains.
Learning Objective: 2.1
Cognitive Domain: Comprehension
Answer Location: What is the brain?
Question Type: MC

17. Which of the following methods is preferred by social neuroscientists in their attempts to understand mental processes?
a. Self-reports
*b. Brain imaging
c. Behavioral laboratory experiments
d. Interviews
Learning Objective: 2.1
Cognitive Domain: Comprehension
Answer Location: What is the brain?
Question Type: MC

18. The tripartite brain consists of the:
a. cortex, cerebellum, and frontal lobes.

b. frontal, parietal, and occipital lobes.
*c. reptilian, mammalian, and neomammalian brains.
d. reptilian, mammalian, and nonmammalian brains.
Learning Objective: 2.2
Cognitive Domain: Analysis
Answer Location: Origins of the Social Brain
Question Type: MC

19. According to the tripartite brain thesis, the mammalian brain includes:
a. the brain stem and cerebellum.
b. the neocortex and cerebellum.
*c. the amygdala and thalamus.
d. the neocortex and thalamus.
Learning Objective: 2.2
Cognitive Domain: Analysis
Answer Location: Origins of the Social Brain
Question Type: MC

20. According to the tripartite brain thesis, what is the most ancient part of the brain?
a. The neocortex
b. The mammalian brain
c. The higher brain
*d. The reptilian brain
Learning Objective: 2.2
Cognitive Domain: Knowledge
Answer Location: Origins of the Social Brain
Question Type: MC

21. The mammalian brain is specifically involved in:
a. balance and coordination.
b. higher cognitive functions.
c. conscious processing.
*d. fear and aggression.
Learning Objective: 2.2
Cognitive Domain: Knowledge
Answer Location: Origins of the Social Brain
Question Type: MC

22. The idea that the social brain evolved primarily as a result of nonsocial pressures is called the:
a. social brain hypothesis.
*b. ecological explanation.
c. contextual explanation.
d. sociological explanation.
Learning Objective: 2.2
Cognitive Domain: Knowledge

Answer Location: Origins of the Social Brain
Question Type: MC

23. The idea that the human brain evolved primarily due to changes in group size is called the:
a. sociological explanation.
b. ecological explanation.
c. contextual explanation.
*d. social brain hypothesis.
Learning Objective: 2.2
Cognitive Domain: Knowledge
Answer Location: Origins of the Social Brain
Question Type: MC

24. Reasoning, planning, and language are generally associated with the:
a. cerebellum.
*b. neocortex.
c. mammalian brain.
d. parietal lobes.
Learning Objective: 2.2
Cognitive Domain: Analysis
Answer Location: Origins of the Social Brain
Question Type: MC

25. What is the neocortex ratio?
*a. Quotient of the neocortex volume divided by the volume of the rest of the brain.
b. Quotient of the entire volume of the brain divided by the neocortex volume.
c. Quotient of the neocortex volume divided by the volume of the cerebrum.
d. Quotient of the cerebrum volume divided by the volume of the neocortex.
Learning Objective: 2.2
Cognitive Domain: Knowledge
Answer Location: Origins of the Social Brain
Question Type: MC

26. Two categories of explanations for the social brain are:
a. neuroscientific and behavioral.
b. ecological and neuroscientific.
*c. ecological and social.
d. neuroscientific and social.
Learning Objective: 2.2
Cognitive Domain: Knowledge
Answer Location: Origins of the Social Brain
Question Type: MC

27. The ecological explanations for the origin of the social brain focus primarily on evolutionary pressures related to:
*a. nonsocial factors.

b. social group size.
c. bipedalism.
d. climate changes.
Learning Objective: 2.2
Cognitive Domain: Comprehension
Answer Location: Origins of the Social Brain
Question Type: MC

28. One alternative ecological hypothesis regarding the evolution of the human brain states that greater intellectual capacities were necessary to:
a. see and run away from threatening animals.
*b. extract the most nutritious components from food sources, maintaining health of self and offspring.
c. develop better animal tracking skills.
d. care better for one's offspring by developing empathy.
Learning Objective: 2.2
Cognitive Domain: Comprehension
Answer Location: Origins of the Social Brain
Question Type: MC

29. The social brain hypothesis, as supported by the research of Dunbar, suggests that the larger brains of primates are directly related to:
*a. changes in group size.
b. increasing reliance on fruit.
c. bipedalism.
d. the need to extract nutrients from food.
Learning Objective: 2.2
Cognitive Domain: Comprehension
Answer Location: Origins of the Social Brain
Question Type: MC

30. Overall, the social brain hypothesis maintains that greater human intelligence was needed to:
a. extract better nutrients from available foods.
b. detect the movement patterns of animal food sources.
*c. monitor increasingly complex social networks.
d. derive better mental maps of fruit location.
Learning Objective: 2.2
Cognitive Domain: Knowledge
Answer Location: Origins of the Social Brain
Question Type: MC

31. According to research by Dunbar assessing the neocortex, the _____ provides the best explanation for the larger brains in primates.
a. food extraction hypothesis
*b. social brain hypothesis
c. ecological hypothesis

d. meat ingestion hypothesis
Learning Objective: 2.2
Cognitive Domain: Comprehension
Answer Location: Origins of the Social Brain
Question Type: MC

32. What are the three main sections of a neuron?
a. Myelin sheath, axon, and axon terminals
b. Axon, nucleus, and cell body
*c. Axon, dendrites, and cell body
d. Dendrites, axon, and axon terminals
Learning Objective: 2.3
Cognitive Domain: Analysis
Answer Location: What Is a Neuron?
Question Type: MC

33. _____ transmit the messages or information to the _____ of other neurons.
a. Neurotransmitters; axons
b. Dendrites; axons
*c. Axons; dendrites
d. Dendrites; neurotransmitters
Learning Objective: 2.3
Cognitive Domain: Analysis
Answer Location: What Is a Neuron?
Question Type: MC

34. What is the function of interneurons?
a. To send directives information to the muscles.
b. To send sensory information to the brain.
c. To connect to mirror neurons.
*d. To connect sensory and motor neurons.
Learning Objective: 2.3
Cognitive Domain: Knowledge
Answer Location: What Is a Neuron?
Question Type: MC

35. _____ neurons are specifically involved in empathy and imitation.
*a. Mirror
b. Secondary
c. Intersensory
d. Social
Learning Objective: 2.3
Cognitive Domain: Knowledge
Answer Location: What Is a Neuron?
Question Type: MC

36. Neurotransmitters either _____ or _____ other neurons.
*a. excite; inhibit
b. activate; deactivate
c. entice; repel
d. add to; detract from
Learning Objective: 2.3
Cognitive Domain: Analysis
Answer Location: What Is a Neuron?
Question Type: MC

37. Which neurotransmitter is released when you feel calm and relaxed?
*a. GABA
b. Norepinephrine
c. Acetylcholine
d. Dopamine
Learning Objective: 2.4
Cognitive Domain: Comprehension
Answer Location: What is a Neuron?
Question Type: MC

38. Which neurotransmitter is responsible for mood regulation?
a. GABA
*b. Serotonin
c. Acetylcholine
d. Dopamine
Learning Objective: 2.4
Cognitive Domain: Comprehension
Answer Location: What is a Neuron?
Question Type: MC

39. Although most evolutionary theorists have argued that natural selection works at the level of the _____, several recent prominent theorists argue that _____ are also selected for.
a. group; genes
b. allele; genes
c. group; alleles
*d. gene; groups
Learning Objective: 2.3
Cognitive Domain: Analysis
Answer Location: Chromosomes, Genes, and DNA
Question Type: MC

40. New gene variants can appear via mutation and _____.
a. alteration
*b. recombination
c. transference
d. disruption

Learning Objective: 2.3
Cognitive Domain: Knowledge
Answer Location: Chromosomes, Genes, and DNA
Question Type: MC

41. Typically, only gene mutations that are _____ will spread throughout a population.
*a. adaptive
b. simple
c. unexpected
d. significant
Learning Objective: 2.3
Cognitive Domain: Knowledge
Answer Location: Chromosomes, Genes, and DNA
Question Type: MC

42. Mutations that are both _____ and _____ are more likely to spread throughout a population.
a. significant; recessive
*b. dominant; adaptive
c. dominant; simple
d. dominant; recessive
Learning Objective: 2.3
Cognitive Domain: Comprehension
Answer Location: Chromosomes, Genes, and DNA
Question Type: MC

43. _____ genes are expressed if both halves of a pair of genes are different, whereas _____ genes are expressed only if both halves of a pair are identical.
a. Recessive; dominant
b. Adaptive; maladaptive
*c. Dominant; recessive
d. Maladaptive; adaptive
Learning Objective: 2.3
Cognitive Domain: Knowledge
Answer Location: Chromosomes, Genes, and DNA
Question Type: MC

44. Changing how a particular protein is synthesized could be accomplished by altering a specific:
*a. gene.
b. chromosome.
c. cell nucleus.
d. amino acid.
Learning Objective: 2.3
Cognitive Domain: Application
Answer Location: Chromosomes, Genes, and DNA

Question Type: MC

45. Alleles are specific variants of:
a. DNA.
b. chromosomes.
*c. genes.
d. RNA.
Learning Objective: 2.3
Cognitive Domain: Knowledge
Answer Location: Chromosomes, Genes, and DNA
Question Type: MC

46. In part, genetic evolution is a product of recombination and _____.
a. alteration
*b. mutation
c. transference
d. disruption
Learning Objective: 2.3
Cognitive Domain: Knowledge
Answer Location: Chromosomes, Genes, and DNA
Question Type: MC

47. _____ reflects the fertilization of the egg by the sperm that results in the combination of one-half of the female's chromosomes with one-half of the male's chromosomes.
a. Alteration
b. Mutation
*c. Recombination
d. Transference
Learning Objective: 2.3
Cognitive Domain: Knowledge
Answer Location: Chromosomes, Genes, and DNA
Question Type: MC

48. Dominant genes are expressed if:
a. both halves of a pair of genes are the same.
b. the recessive genes are paired together.
c. the allele and the gene are the same.
*d. both halves of a pair of genes are different.
Learning Objective: 2.3
Cognitive Domain: Knowledge
Answer Location: Chromosomes, Genes, and DNA
Question Type: MC

49. Blue eyes are caused by:
a. random mutation.
b. genetic alteration.

c. dominant genes.
*d. recessive genes.
Learning Objective: 2.3
Cognitive Domain: Application
Answer Location: Chromosomes, Genes, and DNA
Question Type: MC

50. What are the "messages," or specialized chemicals released by the axon terminals, called in neural communication?
*a. Neurotransmitters
b. Interneurons
c. Dominant genes
d. Mirror neurons
Learning Objective: 2.4
Cognitive Domain: Knowledge
Answer Location: What is a Neuron?
Question Type: MC

51. Which neurotransmitter is released when we engage in something enjoyable, such as eating ice cream?
a. Serotonin
*b. Dopamine
c. Norepinephrine
d. GABA
Learning Objective: 2.4
Cognitive Domain: Application
Answer Location: What is a Neuron?
Question Type: MC

52. Which neurotransmitter is responsible for regulating eating, sleeping, and mood?
a. Norepinephrine
b. Dopamine
*c. Serotonin
d. GABA
Learning Objective: 2.4
Cognitive Domain: Application
Answer Location: What is a Neuron?
Question Type: MC

53. Low levels of which neurotransmitter are associated with social isolation and depression?
a. Norepinephrine
b. Dopamine
c. GABA
*d. Serotonin
Learning Objective: 2.4
Cognitive Domain: Comprehension

Answer Location: What is a Neuron?
Question Type: MC

54. Which neurotransmitter is associated with attention and voluntary motor activity?
*a. Acetylcholine
b. Dopamine
c. Serotonin
d. Norepinephrine
Learning Objective: 2.4
Cognitive Domain: Application
Answer Location: What is a Neuron?
Question Type: MC

55. Which neurotransmitter serves to inhibit anxiety and excitation?
a. Acetylcholine
b. Dopamine
c. Serotonin
*d. GABA
Learning Objective: 2.4
Cognitive Domain: Application
Answer Location: What is a Neuron?
Question Type: MC

56. Which excitatory neurotransmitter is associated with mood, arousal, and memory?
*a. Norepinephrine
b. Dopamine
c. Serotonin
d. Acetylcholine
Learning Objective: 2.4
Cognitive Domain: Application
Answer Location: What is a Neuron?
Question Type: MC

57. If one lacks sufficient production of _____, one may be prone to being overly excitable and anxious.
a. Serotonin
b. Dopamine
*c. GABA
d. Norepinephrine
Learning Objective: 2.4
Cognitive Domain: Comprehension
Answer Location: What is a Neuron?
Question Type: MC

58. What type of neuron is responsible for one's ability to imitate the actions and facial expressions of another?

*a. Mirror neuron
b. Interneuron
c. Motor neuron
d. Sensory neuron
Learning Objective: 2.4
Cognitive Domain: Knowledge
Answer Location: What is a Neuron?
Question Type: MC

59. What is the function of an interneuron?
a. To mirror the actions of other neurons.
b. To send information to the various muscles of the body to create movement.
*c. To connect motor and sensory neurons.
d. To connect the CNS to the rest of the body.
Learning Objective: 2.4
Cognitive Domain: Comprehension
Answer Location: What is a Neuron?
Question Type: MC

60. The four lobes of the brain are:
a. frontal, peripheral, parietal, and occipital.
*b. frontal, temporal, parietal, and occipital.
c. frontal, sensory, parietal, and occipital.
d. reptilian, mammalian, neo-mammalian, and higher.
Learning Objective: 2.5
Cognitive Domain: Analysis
Answer Location: Structures of the Brain
Question Type: MC

61. The _____ lobe is the primary location of planning and rationality.
a. parietal
b. occipital
*c. frontal
d. higher
Learning Objective: 2.5
Cognitive Domain: Knowledge
Answer Location: Structures of the Brain
Question Type: MC

62. The sensory cortex is housed within the:
a. occipital lobe.
b. frontal lobe.
c. temporal lobe.
*d. parietal lobe.
Learning Objective: 2.5
Cognitive Domain: Comprehension

Answer Location: Structures of the Brain
Question Type: MC

63. The _____ lobe is the primary location of vision and houses the visual cortex.
*a. occipital
b. peripheral
c. frontal
d. parietal
Learning Objective: 2.5
Cognitive Domain: Knowledge
Answer Location: Structures of the Brain
Question Type: MC

64. The utility of identifying brain lobes with specific functions is limited, in part, because:
a. there are actually two sets of brain lobes corresponding to the two hemispheres.
b. it is usually difficult to determine which lobes are involved in particular mental processes.
c. the functions associated with brain lobes vary considerably across different people.
*d. mental processes correspond more closely with specific structures and/or regions rather than with the lobes.
Learning Objective: 2.5
Cognitive Domain: Comprehension
Answer Location: Structures of the Brain
Question Type: MC

65. The _____ is called the executive of the nervous system.
a. cortex
*b. prefrontal cortex
c. mammalian brain
d. cerebellum
Learning Objective: 2.5
Cognitive Domain: Knowledge
Answer Location: Structures of the Brain
Question Type: MC

66. Our ability to integrate information from many parts of the brain and from the context is primarily associated with the:
a. limbic system.
b. hippocampus.
c. amygdala.
*d. prefrontal cortex.
Learning Objective: 2.5
Cognitive Domain: Knowledge
Answer Location: Structures of the Brain
Question Type: MC

67. The limbic system is a set of connected structures that are central to:

a. the experience and regulation of emotions, motivation, and memory.
*b. planning, impulse control, and motor coordination.
c. the processing of sensory information.
d. personality.
Learning Objective: 2.5
Cognitive Domain: Analysis
Answer Location: Structures of the Brain
Question Type: MC

68. The _____ is a brain structure most closely connected with detecting and responding to threats.
a. hippocampus
b. thalamus
c. hypothalamus
*d. amygdala
Learning Objective: 2.5
Cognitive Domain: Knowledge
Answer Location: Structures of the Brain
Question Type: MC

69. The amygdala is a brain structure closely connected with:
*a. detecting and responding to threats.
b. storing emotional memories.
c. controlling emotions and urges.
d. motivations such as eating, sleeping, and sex.
Learning Objective: 2.5
Cognitive Domain: Knowledge
Answer Location: Structures of the Brain
Question Type: MC

70. The hippocampus plays an important role in:
a. responses to fear.
b. avoidance of negative consequences.
*c. memory formation and recall.
d. expression of emotion.
Learning Objective: 2.5
Cognitive Domain: Knowledge
Answer Location: Structures of the Brain
Question Type: MC

71. Severe damage to the _____ would likely prevent a person from feeling fear.
*a. amygdala
b. cingulate gyrus
c. hippocampus
d. hypothalamus
Learning Objective: 2.5

Cognitive Domain: Comprehension
Answer Location: Structures of the Brain
Question Type: MC

72. Severe damage to the _____ would likely prevent a person from storing emotional memories.
a. prefrontal cortex
b. cingulate gyrus
*c. hippocampus
d. hypothalamus
Learning Objective: 2.5
Cognitive Domain: Comprehension
Answer Location: Structures of the Brain
Question Type: MC

73. Which brain structure is associated with moral disgust?
a. Hippocampus
b. Amygdala
*c. Insula
d. Hypothalamus
Learning Objective: 2.5
Cognitive Domain: Comprehension
Answer Location: Insula
Question Type: MC

74. Trauma to the _____ would likely prevent a person from being able to plan and think rationally.
*a. prefrontal cortex
b. cingulate gyrus
c. hippocampus
d. hypothalamus
Learning Objective: 2.5
Cognitive Domain: Application
Answer Location: Structures of the Brain
Question Type: MC

75. The _____ affects a wide variety of behaviors—including sexuality and temperature regulation—by triggering the release of hormones in the pituitary gland.
a. amygdala
b. cingulate gyrus
c. hippocampus
*d. hypothalamus
Learning Objective: 2.5
Cognitive Domain: Knowledge
Answer Location: Structures of the Brain
Question Type: MC

76. Human cells typically contain _____ pairs of chromosomes.
a. 46
*b. 23
c. 64
d. 12
Learning Objective: 2.5
Cognitive Domain: Knowledge
Answer Location: Chromosomes, Genes, and DNA
Question Type: MC

77. Chromosomes are composed of DNA molecules and _____.
*a. proteins
b. neurotransmitters
c. fatty acids
d. cell nuclei
Learning Objective: 2.5
Cognitive Domain: Knowledge
Answer Location: Chromosomes, Genes, and DNA
Question Type: MC

78. _____ provide the blueprint for thousands of proteins, whereas a _____ directs the synthesis of a particular protein.
*a. Chromosomes; gene
b. DNA molecules; chromosome
c. Chromosomes; cell body
d. Amino acids; chromosome
Learning Objective: 2.5
Cognitive Domain: Analysis
Answer Location: Chromosomes, Genes, and DNA
Question Type: MC

79. Variants of genes are called:
a. DNA.
b. chromosomes.
*c. alleles.
d. RNA.
Learning Objective: 2.5
Cognitive Domain: Knowledge
Answer Location: Chromosomes, Genes, and DNA
Question Type: MC

80. The basic unit of heritability is the:
a. chromosome.
*b. allele.
c. individual.

d. meme.
Learning Objective: 2.5
Cognitive Domain: Knowledge
Answer Location: Chromosomes, Genes, and DNA
Question Type: MC

81. Neuroscientists who study the heritability of traits and the effects these traits have on social behavior focus primarily on:
a. traits.
b. memes.
*c. alleles.
d. chromosomes.
Learning Objective: 2.5
Cognitive Domain: Comprehension
Answer Location: Chromosomes, Genes, and DNA
Question Type: MC

82. Most evolutionary theorists have argued that natural selection works at the level of the:
a. group.
b. chromosome.
*c. gene.
d. family.
Learning Objective: 2.5
Cognitive Domain: Knowledge
Answer Location: Chromosomes, Genes, and DNA
Question Type: MC

83. The change in skin conductance during physiological arousal is called:
*a. galvanic skin response.
b. electrodermal skin reactivation.
c. galvanic reactivity.
d. electroencephalography.
Learning Objective: 2.6
Cognitive Domain: Knowledge
Answer Location: Galvanic Skin Response
Question Type: MC

84. The galvanic skin response is also referred to as:
a. electroencephalographic activity.
b. blood pressure variation.
c. pupil dilation.
*d. electrodermal activity.
Learning Objective: 2.6
Cognitive Domain: Knowledge
Answer Location: Galvanic Skin Response
Question Type: MC

85. Changes in a person's galvanic skin response during arousal:
a. are easy for the person to control.
*b. happen below the level of awareness.
c. are very difficult to measure.
d. are obvious to the person who is aroused.
Learning Objective: 2.6
Cognitive Domain: Comprehension
Answer Location: Galvanic Skin Response
Question Type: MC

86. People's physiological arousal will affect galvanic skin responses only if:
a. their heart rates increase.
b. their pupils become dilated.
*c. they begin to sweat.
d. they breathe more deeply.
Learning Objective: 2.6
Cognitive Domain: Comprehension
Answer Location: Galvanic Skin Response
Question Type: MC

87. Electromyography records:
a. skin conductance.
b. heart rate.
c. pupil dilation.
*d. muscle movement.
Learning Objective: 2.6
Cognitive Domain: Comprehension
Answer Location: Electromyography
Question Type: MC

88. Measuring facial muscle movement is of interest to psychologists because it is:
a. usually indicative of lying and deceit.
b. often indicative of specific types of brain injury.
*c. often correlated with verbal self-reports and behaviors.
d. typically easy for a person to control.
Learning Objective: 2.6
Cognitive Domain: Comprehension
Answer Location: Electromyography
Question Type: MC

89. Electroencephalography (EEG) is a method for measuring:
a. electrodermal activity.
*b. electrical activity in the brain.
c. skin conductance.
d. neurotransmitter activity.

Learning Objective: 2.6
Cognitive Domain: Knowledge
Answer Location: Electroencephalography (EEG) and Magnetoencephalography (MEG)
Question Type: MC

90. Changes in the electrical activity in the brain resulting from exposure to stimuli are called:
*a. event-related potentials.
b. galvanic brain responses.
c. event-dependent responses.
d. event-related possibilities.
Learning Objective: 2.6
Cognitive Domain: Knowledge
Answer Location: Electroencephalography (EEG) and Magnetoencephalography (MEG)
Question Type: MC

91. Social neuroscientists interested in understanding how the brain responds to particular social stimuli often measure changes in:
a. event-related possibilities.
b. galvanic brain responses.
c. event-dependent responses.
*d. event-related potentials.
Learning Objective: 2.6
Cognitive Domain: Comprehension
Answer Location: Electroencephalography (EEG) and Magnetoencephalography (MEG)
Question Type: MC

92. What is the main problem social neuroscientists face when using ERPs to determine responses to social stimuli?
*a. ERPs are weak and difficult to distinguish from baseline brain activity.
b. ERPs are very invasive and cause temporary vision problems.
c. ERPs are erratic and difficult to capture.
d. ERPs are too strong to distinguish from baseline brain activity.
Learning Objective: 2.6
Cognitive Domain: Comprehension
Answer Location: Electroencephalography (EEG) and Magnetoencephalography (MEG)
Question Type: MC

93. Because ERPs are weak and difficult to distinguish from baseline brain activity, researchers:
a. no longer try to measure them.
*b. aggregate data over many trials.
c. insert electrodes under the skin.
d. rely on self-report to supplement ERP data.
Learning Objective: 2.6
Cognitive Domain: Knowledge
Answer Location: Electroencephalography (EEG) and Magnetoencephalography (MEG)
Question Type: MC

94. Functional Magnetic Resonance Imaging (fMRI) primarily allows neuroscientists to better understand:
a. brain structure.
b. electrodermal activity.
*c. brain function.
d. brain waves.
Learning Objective: 2.6
Cognitive Domain: Knowledge
Answer Location: Functional Magnetic Resonance Imaging (fMRI)
Question Type: MC

95. Functional Magnetic Resonance Imaging (fMRI) uses a magnetic field and radio waves to manipulate:
a. helium atoms.
b. water molecules.
*c. hydrogen atoms.
d. oxygenation.
Learning Objective: 2.6
Cognitive Domain: Comprehension
Answer Location: Functional Magnetic Resonance Imaging (fMRI)
Question Type: MC

96. Functional Magnetic Resonance Imaging (fMRI) can identify the location of brain activity by detecting:
*a. small fluctuations in brain magnetic fields.
b. small movements in helium molecules.
c. small fluctuations in brain waves.
d. ongoing changes in blood flow.
Learning Objective: 2.6
Cognitive Domain: Comprehension
Answer Location: Functional Magnetic Resonance Imaging (fMRI)
Question Type: MC

97. fMRI represents an advance over MRI because it allows researchers to measure:
a. brain structure rather than function.
*b. brain activity over time.
c. more types of brain waves.
d. blood oxygen.
Learning Objective: 2.6
Cognitive Domain: Knowledge
Answer Location: Functional Magnetic Resonance Imaging (fMRI)
Question Type: MC

98. fMRI measures the _____ in the brain following exposure to social stimuli.
a. small fluctuations in alpha waves

b. electrical activity
*c. BOLD response
d. electrodermal activity
Learning Objective: 2.6
Cognitive Domain: Knowledge
Answer Location: Functional Magnetic Resonance Imaging (fMRI)
Question Type: MC

99. BOLD stands for:
a. brain oxygen level differential.
*b. blood oxygen level dependent.
c. brain oxygen lateral discrepancy.
d. blood oxygen lateral dependent.
Learning Objective: 2.6
Cognitive Domain: Knowledge
Answer Location: Functional Magnetic Resonance Imaging (fMRI)
Question Type: MC

100. The "B" in the BOLD response stands for
a. body.
b. brain.
*c. blood.
d. blink.
Learning Objective: 2.6
Cognitive Domain: Knowledge
Answer Location: Functional Magnetic Resonance Imaging (fMRI)
Question Type: MC

101. The BOLD response occurs because:
*a. the magnetic properties of oxygenated and deoxygenated blood diverge slightly.
b. the magnetic properties of oxygenated and deoxygenated blood are identical.
c. magnetic properties of oxygen and hydrogen diverge slightly.
d. magnetic properties of oxygen and hydrogen are identical.
Learning Objective: 2.6
Cognitive Domain: Comprehension
Answer Location: Functional Magnetic Resonance Imaging (fMRI)
Question Type: MC

102. fMRI is particularly useful for social neuroscientists because it has high _____ and _____ resolution.
a. temporal; physical
b. temporal; structural
*c. temporal; spatial
d. temporary; permanent
Learning Objective: 2.6
Cognitive Domain: Comprehension

Answer Location: Functional Magnetic Resonance Imaging (fMRI)
Question Type: MC

103. Because of its high temporal resolution, _____ is very useful to social neuroscientists.
a. MRI
b. GSR
*c. fMRI
d. EEG
Learning Objective: 2.6
Cognitive Domain: Knowledge
Answer Location: Functional Magnetic Resonance Imaging
Question Type: MC

104. A social neuroscientist who believes that all social behavior can best be explained by brain imaging is espousing what viewpoint?
a. Cartesian Dualism
*b. Reductivism
c. Naturalism
d. Objectivism
Learning Objective: 2.6
Cognitive Domain: Application
Answer Location: Social Neuroscience and the Fundamental Questions
Question Type: MC

105. Because each approach to understanding social neuroscience has its shortcomings, scientists often:
a. draw incorrect conclusions from their limited data.
b. focus only on one approach.
c. test the same participants repeatedly using the same approach.
*d. use multiple methods to examine particular social phenomena.
Learning Objective: 2.6
Cognitive Domain: Comprehension
Answer Location: Multimethods
Question Type: MC

106. The assumption that we need only study the brain to fully understand the causes of social behavior is called:
a. dualism.
b. epiphenomenalism.
c. naturalism.
*d. reductivism.
Learning Objective: 2.6
Cognitive Domain: Knowledge
Answer Location: Social Neuroscience and the Fundamental Questions
Question Type: MC

107. Reductivism is a problem for social neuroscience because it:
*a. relies on only one technology to understand social behavior.
b. ignores physiological aspects of social behavior.
c. identifies each brain function with only one brain structure.
d. relies on the assessment of multiple influences on social behavior.
Learning Objective: 2.6
Cognitive Domain: Comprehension
Answer Location: Social Neuroscience and the Fundamental Questions
Question Type: MC

108. A reductivist approach to social neuroscience is incompatible with the social psychological principle that:
a. social behavior is not always observable.
*b. social behavior has multiple causes.
c. social behavior is always physiologically based.
d. social behavior is caused by personal factors.
Learning Objective: 2.6
Cognitive Domain: Analysis
Answer Location: Social Neuroscience and the Fundamental Questions
Question Type: MC

109. The ability of neurons in the brain to regenerate and reorganize throughout the life cycle is called:
a. brain flexibility.
*b. brain plasticity.
c. brain elasticity.
d. brain receptivity.
Learning Objective: 2.6
Cognitive Domain: Knowledge
Answer Location: Final Thoughts: Evolution, Brain Plasticity, and Culture
Question Type: MC

110. While _____ allows for regeneration and reorganization of neurons throughout the life cycle, it is potentially limited by traumatic brain injury.
a. brain flexibility.
b. brain receptivity.
c. brain elasticity.
*d. brain plasticity.
Learning Objective: 2.6
Cognitive Domain: Comprehension
Answer Location: Final Thoughts: Evolution, Brain Plasticity, and Culture
Question Type: MC

Essay Questions

Type: E
1. What is dualism and how does it fit into the mind/body problem?
*a. Dualism is the perspective proposed by Plato, stating that the mind operates independently of the body and is not constrained by it. It fits into the mind/body as there has been ongoing dispute about the relationship between the two and understanding the nature of that exact relationship has proven to be quite challenging.
Learning Objective: 2.1
Cognitive Domain: Knowledge, Comprehension, and Analysis
Answer Location: What is the Brain?
Question Type: ESS

Type: E
2. What is embodied cognition and what does it suggest about dualism and the mind/body problem?
*a. Embodied cognition reflects that idea, that where you are and how you feel influences how you think and what you think about, suggesting that mental processes do not take place in a vacuum-like state that is isolated or disconnected and thereby discrediting the notion of dualism. As such, it suggests that thinking is linked to one's motivational and emotional states.
Learning Objective: 2.1
Cognitive Domain: Knowledge, Comprehension, and Analysis
Answer Location: What is the Brain?
Question Type: ESS

Type: E
3. What is social neuroscience and how does brain mapping fit it in to its aims?
*a. Social neuroscience examines the reciprocal relationships between physiology and social behavior. The ability to map social behavior onto specific regions of the brain enhances social neuroscientists' understanding of how the brain creates social behavior.
Learning Objective: 2.6
Cognitive Domain: Knowledge and Comprehension
Answer Location: What is the Brain?
Question Type: ESS

Type: E
4. Describe the ecological and social brain hypotheses for the origin of the large brains in primates. Which is the better explanation, and what is the key evidence that supports it?
*a. Ecological hypotheses stress the role of nonsocial factors/environment, such as climate or geography; whereas the social brain hypothesis holds that greater intelligence was required to monitor increasingly complex social networks. The research of Dunbar supports the social brain hypothesis as the neocortex ratio was positive related to group size, but yielded no relationship with fruit consumption.
Learning Objective: 2.2
Cognitive Domain: Knowledge and Comprehension
Answer Location: Origins of the Social Brain
Question Type: ESS

Type: E
5. Name the three main sections of a neuron and state the primary functions of each.
*a. A neuron is the basic building block of the brain and nervous system, comprising three major sections: the soma (cell body or nucleus housing DNA), the dendrites (branching structures that extend from the soma and receive messages from the axons of adjacent neurons), and the axon (the relatively long and narrow structure that transmits messages to receiving cells via the terminals located at their ends).
Learning Objective: 2.3
Cognitive Domain: Knowledge
Answer Location: What is a Neuron?
Question Type: ESS

Type: E
6. Describe the function and importance of the neurotransmitters dopamine and serotonin.
*a. (1) Dopamine can be either inhibitory or excitatory and is released when we engage in enjoyable activities. (2) Serotonin is an inhibitory neurotransmitter and helps in the regulation of emotion.
Learning Objective: 2.4
Cognitive Domain: Knowledge
Answer Location: What is a neuron?
Question Type: ESS

Type: E
7. What are the components of the limbic system, and what are the primary functions of each?
*a. The limbic system is a set of connected structures that are central to the experience and regulation of emotions, motivation, and memory. It is comprised of various structures, including the amygdala, which is an almond-shaped structure connected to the ends of the basal ganglia and is associated with the detection of and response to threat, and the hippocampus, which plays a crucial role in memory formation and recall.
Learning Objective: 2.5
Cognitive Domain: Knowledge
Answer Location: Limbic System
Question Type: ESS

Type: E
8. Name the four lobes of the brain and state the functions of each.
*a. (1) Frontal Lobe: Planning, rational thought, and gross/fine motor functioning; (2) Temporal Lobe: Auditory process (hearing) and comprehension of speech; (3) Parietal Lobe: House the "sensory cortex" and are heavily involved in the sensation of touch; and (4) Occipital Lobe: Vision (facial recognition especially critical to social processing).
Learning Objective: 2.5
Cognitive Domain: Knowledge
Answer Location: Structures of the Brain
Question Type: ESS

Type: E

9. What is the amygdala and what are its primary functions?
*a. The amygdala is an almond-shaped structure connected to the ends of the basal ganglia and is associated with the detection of and response to threat.
Learning Objective: 2.5
Cognitive Domain: Knowledge
Answer Location: Limbic System
Question Type: ESS

Type: E
10. What is the insula and why is it of importance to social neuroscientists?
*a. The insula is connected to the olfactory bulbs and is involved in the reaction to smell, particularly disgusting smells associated with spoiled meat and unpleasant odors from others. It is important to social neuroscientists due to its association with moral disgust as research indicates similar patterns of brain responses to both physical and moral disgust.
Learning Objective: 2.5
Cognitive Domain: Comprehension
Answer Location: Limbic System
Question Type: ESS

Type: E
11. What is the main problem with studying ERPs identified in the text and how do social neuroscientists try to overcome it?
*a. Social psychologists interested in how the brain responds to social stimuli focus on changes in electrical activity in the brain (ERPs-event-related potentials) both during and immediately after stimulus presentation. The main problem with studying ERPs is that they are fairly weak and can be drowned out by baseline electrical activity; therefore, social neuroscientists enhance signal detection by gathering data over many trials and averaging the data from multiple electrodes.
Learning Objective: 2.6
Cognitive Domain: Knowledge and Comprehension
Answer Location: Electroencephalography (EEG) and Magnetoencephalography (MEG)
Question Type: ESS

Type: E
12. What is facial electromyography?
*a. Facial electromyography measures electrical activity in facial muscles and also can detect the positivity or negativity of emotional reactions and the intensity of those reactions among message recipients during message exposure.
Learning Objective: 2.6
Cognitive Domain: Knowledge
Answer Location: Electromyography
Question Type: ESS

Type: E
13. Explain the BOLD response and its relationship to fMRI?

*a. An fMRI detects the difference between the magnetic properties of oxygenated and deoxygenated blood. This is referred to as the blood oxygen level dependent response (BOLD)—the heightened activity of the neurons leads to an increase in both blood flow and the ratio of oxygenated to deoxygenated hemoglobin.
Learning Objective: 2.6
Cognitive Domain: Knowledge and Comprehension
Answer Location: Functional Magnetic Resonance Imaging (fMRI)
Question Type: ESS

Type: E
14. What is TMS and how it has been used in social psychological research?
*a. TMS stands for transcranial magnetic stimulation and is considered to be an invasive and disruptive technique for imaging the brain as it uses a magnetic field to create an electrical current that stimulates targeted areas of the brain and temporarily prevents normal functioning. Social neuroscientists have used TMS to briefly shut down the mirror neuron system in order to verify its role in imitating others.
Learning Objective: 2.6
Cognitive Domain: Knowledge and Comprehension
Answer Location: Functional Magnetic Resonance Imaging (fMRI)
Question Type: ESS

Type: E
15. What is reductivism, and why is it a problem for social psychologists?
*a. Reductivism is the assumption that we only need to study the brain in order to understand the causes of social behavior. This is a problem as this would not adequately address the causes or origins of most social behavior; rather, a multimethod approach needs to be utilized to comprehend the intricacies of social behavior.
Learning Objective: 2.6
Cognitive Domain: Knowledge and Comprehension
Answer Location: Social Neuroscience and the Fundamental Questions
Question Type: ESS