Chapter 3: The Nature and Nurture of Sex and Gender

Test Bank

# Multiple Choice

1. As early as 1993, Biologist Ann Fausto-Sterling argued what about biological sex?

A. that at least five or more biological sexes should be recognized

B. that the cultural tendency to view sex as binary is largely correct

C. that there are actually three biological sexes

D. that the concept of biological sex is meaningless

Ans: A

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Knowledge

Answer Location: The Nature and Nurture of Sex and Gender

Difficulty Level: Easy

2. Each method of sex verification testing in athletics has shortcomings because \_\_\_\_\_\_.

A. biological sex is irrelevant to athletics

B. there are actually three distinct sexes

C. sex falls along a continuum from consistently female to consistently male

D. there are no reliable hormonal differences between males and females

Ans: C

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Comprehension

Answer Location: The Nature and Nurture of Sex and Gender

Difficulty Level: Medium

3. A gene-by-environment interaction occurs when \_\_\_\_\_\_.

A. a genetic tendency emerges only under certain environmental circumstances

B. environmental factors influence personality regardless of genetic makeup

C. genetic predispositions emerge across different environments

D. environments pressure the selection of specific genes and traits

Ans: A

Learning Objective: 3-1: Explain how nature and nurture interactively contribute to the development of sex and gender.

Cognitive Domain: Knowledge

Answer Location: Gene-by-Environment Interactions

Difficulty Level: Easy

4. Which of the following is the best example of a *passive* gene-by-environment interaction?

A. a genetically aggressive person choosing to consume violent media

B. a child with an active temperament who elicits rough-and-tumble play from his peers

C. genetically athletic parents who begin athletic training for their children at an early age

D. strengthened neural connections due to early experiences of aggressive play

Ans: C

Learning Objective: 3-1: Explain how nature and nurture interactively contribute to the development of sex and gender.

Cognitive Domain: Comprehension

Answer Location: Gene-by-Environment Interactions

Difficulty Level: Medium

5. Which of the following is the best example of nurture (environmental factors) influencing nature (biological differences)?

A. naturally artistic parents exposing their children to the arts at an early age

B. the finding that girls who experience higher family stress tend to have an earlier age of menstruation

C. the relationship between violent media exposure in childhood and aggression in adulthood

D. a genetically shy person deliberately choosing quieter environments

Ans: B

Learning Objective: 3-1: Explain how nature and nurture interactively contribute to the development of sex and gender.

Cognitive Domain: Comprehension

Answer Location: Gene-by-Environment Interactions

Difficulty Level: Medium

6. The findings from Caspi and colleagues’ (2003) longitudinal study on the environmental and genetic roots of depression best support which of the following interpretations?

A. Certain genetic predispositions make depression inevitable.

B. Genetic vulnerabilities and stressful environments combine to influence the prevalence of depression.

C. People suffering from depression most likely had frequent, highly stressful experiences early in life.

D. Depression spreads throughout social environments via emotional contagion.

Ans: B

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Comprehension

Answer Location: Gene-by-Environment Interactions

Difficulty Level: Medium

7. The study of biological mechanisms that guide whether or not certain genes get expressed or activated is called \_\_\_\_\_\_.

A. epigenetics

B. metagenetics

C. eugenics

D. genetics

Ans: A

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Knowledge

Answer Location: Epigenetics

Difficulty Level: Easy

8. The complex series of processes that unfolds as embryos transition into an individual with male, female, or intersex genitalia is called \_\_\_\_\_\_.

A. sex selection

B. sex differentiation

C. gender assignment

D. genderization

Ans: B

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Knowledge

Answer Location: How Do Nature and Nurture Shape Sex Differentiation?

Difficulty Level: Easy

9. Which of the following best describes what determines a person’s biological sex?

A. their external genitalia

B. the specific combination of sex chromosomes (e.g., XX and XY)

C. a combination of chromosomes, genes, hormones, and internal and external sex organs

D. the combination of sex chromosomes and the external genitalia they produce

Ans: C

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Knowledge

Answer Location: Typical Sex Differentiation

Difficulty Level: Easy

10. What type of chromosome contains genes that code for attributes such as eye color, hair color, and height?

A. allosome

B. autosome

C. unisome

D. sex chromosomes

Ans: B

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Knowledge

Answer Location: Typical Sex Differentiation

Difficulty Level: Easy

11. Which of the following is TRUE of chromosomes in the human body?

A. Every somatic cell contains 26 unpaired of chromosomes.

B. All but one chromosome or chromosome pair are non-sex chromosomes.

C. Reproductive cells contain paired chromosomes.

D. Sperm cells provide a Y chromosome during fertilization.

Ans: B

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Knowledge

Answer Location: Typical Sex Differentiation

Difficulty Level: Easy

12. At the *genetic level alone*, female and male are defined by \_\_\_\_\_\_.

A. the presence of androgen

B. the presence of estrogen

C. the presence or absence of an X chromosome

D. the presence or absence of a Y chromosome

Ans: D

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Knowledge

Answer Location: Typical Sex Differentiation

Difficulty Level: Easy

13. The \_\_\_\_\_\_ is(are) the sex organ(s) responsible for producing sex cells and hormones.

A. gonads

B. genitalia

C. genital ridge

D. genital tubercle

Ans: A

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Knowledge

Answer Location: Typical Sex Differentiation

Difficulty Level: Easy

14. The gonads of female and male embryos begin to differ by sex in the \_\_\_\_\_\_ of development.

A. third month

B. second trimester

C. first week

D. sixth week

Ans: D

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Knowledge

Answer Location: Typical Sex Differentiation

Difficulty Level: Easy

15. Which of the following is FALSE regarding the role of hormones in sex differentiation?

A. The genital ridge develops into female internal genitalia in the absence of androgens.

B. Gonads begin producing hormones by about the eighth week of gestation.

C. In genetic females, the ovaries produce many hormones prenatally.

D. Androgens initiate the biological masculinization in male genitalia.

Ans: C

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Comprehension

Answer Location: Typical Sex Differentiation

Difficulty Level: Medium

16. Which of the following best describes sex differences in the production of testosterone?

A. Testosterone is the male hormone while estrogen and progesterone are the female hormones.

B. Both sexes produce testosterone, but males produce much more during certain phases of development.

C. Sex differences in testosterone are a common misconception. Both sexes produce equal amounts of testosterone.

D. At certain phases of development, males produce more testosterone, but in other phases, females produce far more.

Ans: B

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Comprehension

Answer Location: Typical Sex Differentiation

Difficulty Level: Medium

17. Which of the following is NOT one of the four deviations of the typical XX or XY chromosomal pattern that have been widely studied?

A. Turner’s syndrome (i.e., a single X chromosome)

B. Triple X syndrome (i.e., three X chromosomes)

C. Klinefelter syndrome (i.e., an XXY chromosomal pattern)

D. Wagner’s syndrome (i.e., a single Y chromosome)

Ans: D

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Knowledge

Answer Location: Intersex Conditions

Difficulty Level: Easy

18. Based on both atypical and typical chromosomal patterns, what relationship appears to exist between chromosomal patterns and gender identity?

A. The presence of a Y chromosome strongly predicts a male gender identity.

B. The presence of an X chromosome strongly predicts a female gender identity.

C. The presence of a third chromosome predicts male gender identity.

D. People with atypical chromosomal patterns tend to identify as female.

Ans: A

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Comprehension

Answer Location: Intersex Conditions

Difficulty Level: Medium

19. Which of the following is NOT true of genetic females with congenital adrenal hyperplasia (CAH)?

A. They often undergo feminization surgery of their genitalia in infancy.

B. Most ultimately identify as male.

C. They play with male typical toys more than their sisters without CAH.

D. They show decreased satisfaction with their sex assignment.

Ans: B

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Comprehension

Answer Location: Intersex Conditions

Difficulty Level: Medium

20. People with conditions that make the cells of the body less responsive to androgens tend to \_\_\_\_\_\_.

A. only affect the gender identity of females

B. appear female at birth and develop a female gender identity

C. develop gender identities inconsistent with their genetic sex if female

D. be born with enlarged genitalia

Ans: B

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Comprehension

Answer Location: Intersex Conditions

Difficulty Level: Medium

21. Which of the following is TRUE of the relationship between culture and the experiences of intersex individuals?

A. Intersex individuals are at increased risk of violence in any culture.

B. Western countries tend to be more inclusive of intersex individuals.

C. All cultures tend to respond to intersexuality in the same manner.

D. Social and legal exclusion of intersex individuals is unrelated to violence towards them.

Ans: A

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Comprehension

Answer Location: Intersex Conditions

Difficulty Level: Medium

22. \_\_\_\_\_\_ refers to the binary sex that doctors and parents perceive as the best option for newborn infants whose genitalia appear atypical.

A. Optimal sex

B. Target sex

C. Biological sex

D. Socialized sex

Ans: A

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Knowledge

Answer Location: Optimal Sex

Difficulty Level: Easy

23. John Money’s optimal sex policy at John Hopkins University reflected his belief that \_\_\_\_\_\_.

A. gender identity is primarily driven by genetic sex

B. gender identity doesn’t begin forming until adolescence

C. social factors can override any role that biology plays in gender identity

D. physical appearance may not be consistent with assigned sex

Ans: C

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Comprehension

Answer Location: Optimal Sex

Difficulty Level: Medium

24. Dr. Johnson rejects optimal sex policies on ethical grounds. Which of the following recommendations is Dr. Johnson most likely to make to parents who give birth to an intersex child?

A. consider surgery to ensure physical appearance is consistent with assigned sex

B. offer treatments to ensure typical hormone levels for the child

C. recommend postponing any treatments until the child becomes old enough to contribute to the decision

D. advise parents to select the sex and raise their child as that sex

Ans: C

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Application

Answer Location: Optimal Sex

Difficulty Level: Hard

25. Which of the following best describes the case story of David Reimer, a genetic boy raised a girl?

A. Reimer’s story is a perfect example of John Money’s views on gender identity.

B. Reimer’s story indicates that gender identity cannot be entirely shaped by socialization.

C. Reimer experienced no psychological trauma from being raised as a girl.

D. Reimer’s story is inconsistent with larger studies of intersex individuals.

Ans: B

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Comprehension

Answer Location: Gender Identity

Difficulty Level: Medium

26. The Meyer-Bahlburg (2005) study of genetic males who were raised as female found that \_\_\_\_\_\_.

A. .6% experienced symptoms of gender dysphoria

B. they were 37 times more likely to be transgender than the U.S. population as a whole

C. most failed to develop the female gender identity they were socialized to adopt

D. chromosomes and hormones are a more dominant influence upon gender identity than socialization

Ans: B

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Knowledge

Answer Location: Gender Identity

Difficulty Level: Easy

27. Which best describes the implications of the Meyer-Bahlburg (2005) study (examining genetic males raised as females) for the nature versus nurture debate as it relates to the development of gender identity?

A. Biological variables are a stronger influence than socialization.

B. Chromosomes and hormones rarely override the influence of socialization and rearing.

C. It is not possible to distinguish between biological (nature) and social (nurture) variables when studying gender identity development.

D. Nurture variables (e.g., rearing) have strong effects upon gender identity, but they can be overridden by nature variables (e.g., chromosomes and hormones).

Ans: D

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Analysis

Answer Location: Gender Identity

Difficulty Level: Medium

28. A(n) \_\_\_\_\_\_ is a statistic that specifies the proportion of total population variance in a given trait that is due to genetic differences among the people in the population.

a genetic effect size

B. inherited ratio

C. epigenetic variance

D. heritability estimate

Ans: D

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Knowledge

Answer Location: Gender Identity

Difficulty Level: Easy

29. What does it mean if the heritability estimate of conscientiousness in a population is .27?

A. Out of 100 people, approximately 27 will have inherited traits for high conscientiousness

B. Twenty-seven percent of an individual’s conscientiousness traits are explained by his or her genes.

C. Genes explain 27% of the population variance in conscientiousness

D. Twenty-seven percent of the population will have conscientiousness traits explained entirely by their genes.

Ans: C

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Comprehension

Answer Location: Gender Identity

Difficulty Level: Medium

30. Heritability estimates are calculated by \_\_\_\_\_\_.

A. comparing the similarity of monozygotic and dizygotic twins

B. correlating the presence of specific genes with traits in a population

C. manipulating the social environment in which dizygotic twins are raised

D. administering hormones to one twin in a monozygotic pair

Ans: A

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Comprehension

Answer Location: Gender Identity

Difficulty Level: Medium

31. Studies providing heritability estimates for gender identity suggest that \_\_\_\_\_\_.

A. biological factors primarily contribute to gender identity status

B. social factors primarily contribute to gender identity status

C. the heritability of gender identity is similar to the heritability of major personality traits

D. socialization determines gender identity but only in the presence of specific chromosomal and hormonal patterns

Ans: C

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Comprehension

Answer Location: Gender Identity

Difficulty Level: Medium

32. Which of the following is TRUE of studies examining the heritability of masculine and feminine traits?

A. For men, approximately 20–48% of their masculine traits is explained by genes.

B. Feminine traits are more heritable than masculine traits.

C. They find no genetic influences on sex-typed preferences for toys among children.

D. Around 52–80% of the population variance in feminine and masculine traits is explained by social and environmental factors.

Ans: D

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Knowledge

Answer Location: Gender Identity

Difficulty Level: Easy

33. In a review of longitudinal studies, White, Hughto and Reisner (2016) found what effects of hormone treatments among Transwomen and Transmen?

A. Transmen showed significant declines in their physical health.

B. Both Transmen and Transwomen showed significant decreases in anxiety and depression.

C. Transwomen showed increased rates of depression while Transmen showed decreased rates.

D. Hormone treatments had no effects on mental health.

Ans: B

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Knowledge

Answer Location: Gender Confirmation Procedures

Difficulty Level: Easy

34. Gender confirmation procedures refer to \_\_\_\_\_\_.

A. a set of procedures (e.g., surgery) designed to align one’s physical body with gender identity

B. psychological treatment designed to change one’s gender identity to be consistent with biological sex

C. feminization or masculinization procedures given to intersex infants at birth

D. the process of determining and assigning gender to newborns

Ans: A

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Knowledge

Answer Location: Gender Confirmation Procedures

Difficulty Level: Easy

35. Which of the following is NOT true of sex differences in brain size?

A. Male brains are on average 11% larger in volume than female.

B. Women tend to have larger frontal pole cortexes (responsible for planning and decision making).

C. Men tend to have large left hippocampuses (responsible for memory, learning, and emotion).

D. Women’s left hemispheres are slightly larger when body size is taken into account.

Ans: D

Learning Objective: 3-4: Evaluate evidence for sex differences in the brain and the prevalence of neurosexism.

Cognitive Domain: Knowledge

Answer Location: Sex Differences in the Brain

Difficulty Level: Easy

36. MRI allows researchers to look at brain \_\_\_\_\_\_ and fMRI allows them to examine brain \_\_\_\_\_\_.

A. activity; function

B. activity; hormones

C. hormones; function

D. structures; activity

Ans: D

Learning Objective: 3-4: Evaluate evidence for sex differences in the brain and the prevalence of neurosexism.

Cognitive Domain: Knowledge

Answer Location: Sex Differences in the Brain

Difficulty Level: Easy

37. What is meant by neural plasticity?

A. the various stages of neural development from birth to early adulthood

B. the vulnerability of specific brain structures to hormonal imbalances

C. the brain’s ability to generate new neurons in adulthood

D. the brain’s ability to reorganize physically in response to environmental factors

Ans: D

Learning Objective: 3-4: Evaluate evidence for sex differences in the brain and the prevalence of neurosexism.

Cognitive Domain: Knowledge

Answer Location: Sex Differences in the Brain

Difficulty Level: Easy

38. Ruigrok et al., (2014) found that, compared to women, men tend to show greater volume in the left amygdala (a part of the limbic system involved in processing and expressing emotions, especially fear). What can be concluded from this finding?

A. Sex differences in fear expression are more driven by nature than nurture.

B. That men tend to have better memories of highly emotional experiences.

C. Men will generally feel more afraid than women.

D. This finding alone is not indicative of any meaningful sex differences in emotional experiences.

Ans: D

Learning Objective: 3-4: Evaluate evidence for sex differences in the brain and the prevalence of neurosexism.

Cognitive Domain: Application

Answer Location: Equating the Brain with “Nature”

Difficulty Level: Hard

39. In her 2009 book--*Pink Brain, Blue Brain--*Lise Eliot puts forth what interpretation of observed sex differences in the brain?

A. Gender stereotypes create different life experiences for boys and girls which exaggerate structural differences in the brain.

B. The presence of sex differences in brain structures is evidence of a stronger role of nature over nurture.

C. Sex differences in brain structures are primarily influenced by the presence or absence of androgens during gestation.

D. That when looked at on the whole, sex differences in brain structures are too small to research meaningfully.

Ans: A

Learning Objective: 3-4: Evaluate evidence for sex differences in the brain and the prevalence of neurosexism.

Cognitive Domain: Knowledge

Answer Location: Equating the Brain with “Nature”

Difficulty Level: Easy

40. When Cordelia Fine introduced the concept of neurosexism in her 2010 book, *Delusions of Gender,* what did she mean by it?

A. People tend to interpret neuroscience research in ways that reinforce gender stereotypes.

B. The field of neuroscience is unwelcoming to female colleagues.

C. The bulk of sex differences in brain structures actually give women a slight cognitive edge.

D. Studying sex differences in neuroanatomy is inherently damaging to women’s progress.

Ans: A

Learning Objective: 3-4: Evaluate evidence for sex differences in the brain and the prevalence of neurosexism.

Cognitive Domain: Knowledge

Answer Location: Neuroscience or Neurosexism

Difficulty Level: Easy

41. According to evolutionary psychology in what contexts should sex differences emerge?

A. in domains in which women and men historically faced different adaptive problems

B. for behaviors that are rewarded differently for men and women by cultures

C. in traits that only helped males or females attract as many mates as possible

D. for capacities that helped detect predators and immediate threats in the environment

Ans: A

Learning Objective: 3-5: Examine the roles of nature and nurture in theories of the origins of sex differences.

Cognitive Domain: Comprehension

Answer Location: Evolutionary Psychology

Difficulty Level: Medium

42. Throughout evolutionary history women have faced unique challenges when it comes to \_\_\_\_\_\_ while men have faced the challenge of \_\_\_\_\_\_.

A. foraging; hunting

B. paternity uncertainty; commitment to children

C. bearing children; paternity uncertainty

D. spatial reasoning; linguistics

Ans: C

Learning Objective: 3-5: Examine the roles of nature and nurture in theories of the origins of sex differences.

Cognitive Domain: Knowledge

Answer Location: Evolutionary Psychology

Difficulty Level: Easy

43. Which of the following traits is the best example of a trait that would give an organism a competitive edge with respect to *intrasexual* selection

A. the ornate, colorful plumage of peacocks

B. the head-butting horns of bighorn sheep

C. the manes of lions

D. the elaborate songs and whistles of birds

Ans: B

Learning Objective: 3-5: Examine the roles of nature and nurture in theories of the origins of sex differences.

Cognitive Domain: Application

Answer Location: Evolutionary Psychology

Difficulty Level: Hard

44. For what reason does evolutionary psychology argue women are more selective than men when choosing mates?

A. Women have low expectations for their enjoyment of sexual intimacy.

B. Women have to invest more in producing offspring.

C. Women can never be completely sure who the father of their child is.

D. Women’s roles in human societies tend to be less risky and allow for them to take their time in selecting mates.

Ans: B

Learning Objective: 3-5: Examine the roles of nature and nurture in theories of the origins of sex differences.

Cognitive Domain: Comprehension

Answer location: Evolutionary Psychology

Difficulty Level: Medium

45. Relative to women, men tend to prefer mates who are \_\_\_\_\_\_, while women tend to value \_\_\_\_\_\_ more than men.

A. high status; sense of humor

B. educated; physical attractiveness

C. young; sexual fidelity

D. physically attractive; access to resources

Ans: D

Learning Objective: 3-5: Examine the roles of nature and nurture in theories of the origins of sex differences.

Cognitive Domain: Knowledge

Answer Location: Evolutionary Psychology

Difficulty Level: Easy

46. According to evolutionary psychology which quality should both sexes be equally likely to rate as essential in a mate?

A. assertiveness

B. kindness

C. attractiveness

D. social status

Ans: B

Learning Objective: 3-5: Examine the roles of nature and nurture in theories of the origins of sex differences.

Cognitive Domain: Comprehension

Answer Location: Evolutionary Psychology

Difficulty Level: Medium

47. Evolutionary psychology faces a challenge to its scientific merit because \_\_\_\_\_\_.

A. the theory of natural selection has undergone recent revisions as our understanding of genetics has advanced

B. it does not contribute any meaningful hypotheses regarding same-sex relationships

C. its predictions can be speculative and difficult to test empirically

D. there is evidence of increased bias in the field of evolutionary psychology

Ans: C

Learning Objective: 3-5: Examine the roles of nature and nurture in theories of the origins of sex differences.

Cognitive Domain: Comprehension

Answer Location: Evolutionary Psychology

Difficulty Level: Medium

48. According to biosocial constructionist theory, the key to understanding sex differences and similarities between men and women is \_\_\_\_\_\_.

A. the division of labor in society

B. to examine the different problems men and women faced in ancient cultures

C. how early childhood experiences affect the prevalence of different hormones during development

D. to examine how men and women respond to social hierarchies in modern society

Ans: A

Learning Objective: 3-5: Examine the roles of nature and nurture in theories of the origins of sex differences.

Cognitive Domain: Comprehension

Answer Location: Biosocial Constructionist Theory

Difficulty Level: Medium

49. What outcome does biosocial constructionist theory predict decreases in physically demanding jobs and increases in cognitively oriented jobs to have upon sex differences?

A. It should reinforce gender stereotypes as women and men are free to pursue their preferences.

B. Women should see increases in their intellectual abilities relative to men.

C. Men should become more competitive as the job market is more saturated.

D. Expectations for women to stay in child rearing and nurturing social roles should decrease.

Ans: D

Learning Objective: 3-5: Examine the roles of nature and nurture in theories of the origins of sex differences.

Cognitive Domain: Application

Answer Location: Biosocial Constructionist Theory

Difficulty Level: Hard

50. Which of the following best describes a key difference in the predictions made by evolutionary psychology and biosocial constructionist theory?

A. Biosocial constructionist theory argues that changes in cultural gender stereotypes can occur more rapidly than evolutionary psychology predicts.

B. Biosocial constructionist theory posits that sex differences are affected by both biology and culture whereas evolutionary psychology does not.

C. Evolutionary psychology predicts sex differences in the volume of brain structures but this is inconsistent with biosocial constructionist theory.

D. Evolutionary psychology predicts sex differences in assertiveness and risk-taking while biosocial constructionist theory argues there are no differences in psychological variables.

Ans: A

Learning Objective: 3-5: Examine the roles of nature and nurture in theories of the origins of sex differences.

Cognitive Domain: Analysis

Answer Location: Biosocial Constructionist Theory

Difficulty Level: Medium

# True/False

1. Epigenetics research demonstrates that a mother’s diet, sleep patterns, or stress levels during pregnancy may affect gene expression in her offspring

Ans: T

Learning Objective: 3-1: Explain how nature and nurture interactively contribute to the development of sex and gender.

Cognitive Domain: Comprehension

Answer Location: Epigenetics

Difficulty Level: Medium

2. The story of David Reimer, a genetic boy raised as a girl, is consistent with John Money’s assumption that nurture overrides nature in determining individuals’ gender identity.

Ans: F

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Comprehension

Answer Location: Gender Identity

Difficulty Level: Medium

3. There is little cultural variability in the treatment and acceptance of intersex and transgender individuals.

Ans: F

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Knowledge

Answer Location: The Nature and Nurture of Sex and Gender

Difficulty Level: Easy

4. Most scientists today agree that nurture rather than nature is the primary factor influencing sex and gender.

Ans: F

Learning Objective: 3-1: Explain how nature and nurture interactively contribute to the development of sex and gender.

Cognitive Domain: Comprehension

Answer Location: Nature *Versus* Nurture or Nature *and* Nurture?

Difficulty Level: Medium

5. By looking at either external genitalia or sex chromosomes scientists can accurately determine a person’s sex.

Ans: F

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Knowledge

Answer Location: Typical Sex Differentiation

Difficulty Level: Easy

6. Throughout most of childhood boys and girls do not differ much in their hormone levels.

Ans: T

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Knowledge

Answer Location: Typical Sex Differentiation

Difficulty Level: Easy

7. Genetic males with complete androgen insensitivity typically develop a female gender identity.

Ans: T

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Knowledge

Answer Location: Intersex Conditions

Difficulty Level: Easy

8. Gender identity is roughly as heritable as personality in general.

Ans: T

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Knowledge

Answer Location: Gender Identity

Difficulty Level: Easy

9. White, Hughto, and Reisner’s (2016) longitudinal study of transgender people seeking gender confirmation procedures found that initiating hormone treatments increased anxiety and depression symptoms.

Ans: F

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Knowledge

Answer Location: Gender Confirmation Procedures

Difficulty Level: Easy

10. The sizes of a brain structures are reliable predictors of meaningful behavioral and psychological sex differences.

Ans: F

Learning Objective: 3-4: Evaluate evidence for sex differences in the brain and the prevalence of neurosexism.

Cognitive Domain: Knowledge

Answer Location: Sex Differences in the Brain

Difficulty Level: Easy

11. Sex differences in brain structures are indicative of innate, biological differences between female and male individuals.

Ans: F

Learning Objective: 3-4: Evaluate evidence for sex differences in the brain and the prevalence of neurosexism.

Cognitive Domain: Comprehension

Answer Location: Equating the Brain with “Nature”

Difficulty Level: Medium

12. According to evolutionary psychology, a primary reproductive problem men have adapted to is paternity uncertainty.

Ans: T

Learning Objective: 3-5: Examine the roles of nature and nurture in theories of the origins of sex differences.

Cognitive Domain: Knowledge

Answer Location: Evolutionary Psychology

Difficulty Level: Easy

13. Eagly and Wood (1999) find that cultures with high gender equality exhibit smaller sex differences in mating preferences based on earning potential.

Ans: T

Learning Objective: 3-5: Examine the roles of nature and nurture in theories of the origins of sex differences.

Cognitive Domain: Knowledge

Answer Location: Evolutionary Psychology

Difficulty Level: Easy

14. According to biosocial constructionist theory, sex differences in traits related to warmth and assertiveness emerge from how societies divide labor.

Ans: T

Learning Objective: 3-5: Examine the roles of nature and nurture in theories of the origins of sex differences.

Cognitive Domain: Knowledge

Answer Location: Biosocial Constructionist Theory

Difficulty Level: Easy

15. Biosocial constructionist theory argues that sex differences in psychological factors such as personality traits, mating preferences, and jealousy are not genetically heritable.

Ans: T

Learning Objective: 3-5: Examine the roles of nature and nurture in theories of the origins of sex differences.

Cognitive Domain: Knowledge

Answer Location: Biosocial Constructionist Theory

Difficulty Level: Easy

# Short Answer

1. What is meant by a gene-by-environment interaction?

Ans: A gene-by-environment interaction occurs when a tendency emerges only under certain environmental circumstances, or when an environment shapes traits or behavior only for individuals with a particular genetic makeup.

Learning Objective: 3-1: Explain how nature and nurture interactively contribute to the development of sex and gender.

Cognitive Domain: Knowledge

Answer Location: Gene-by-Environment Interactions

Difficulty Level: Easy

2. Briefly describe how epigenetics explains why identical twins, who are genetic copies of each other, nonetheless different in subtle ways?

Ans: Epigenetic marks are molecular structures that activate or deactivate genes. As the environments of identical twins diverge epigenetic markers may activate different genes in their cells.

Learning Objective: 3-1: Explain how nature and nurture interactively contribute to the development of sex and gender.

Cognitive Domain: Comprehension

Answer Location: Epigenetics

Difficulty Level: Medium

3. What is the difference between autosomes and allosomes?

Ans: Autosomes are non-sex chromosomes that contain genes that code for attributes such as eye color, hair color, and height. Allosomes are sex chromosomes which contain genes that code for sex.

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Knowledge

Answer Location: Typical Sex Differentiation

Difficulty Level: Easy

4. During what periods of development are there NO sex differences in the presence of testosterone?

Ans: From about the 24th week of gestation until puberty, except for a 6-month period immediately after birth in which boys’ testosterone levels surge briefly.

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Knowledge

Answer Location: Typical Sex Differentiation

Difficulty Level: Easy

5. Briefly describe Congenital Adrenal Hyperplasia (CAH). How is the gender identity of genetic females with CAH similar to or different from non-CAH females?

Ans: CAH is a condition in which the body over manufactures androgens. Genetic females with CAH typically identified as female but they show less satisfaction with their sex assignment and more mail typical gender identity than non-CAH females.

Learning Objective: 3-2: Explain how chromosomes, genes, and hormones shape sex differentiation in both typical and atypical (intersex) cases.

Cognitive Domain: Knowledge

Answer Location: Intersex Conditions

Difficulty Level: Easy

6. Juan is reading an academic article claiming that the heritability of intelligence is approximately 63%. He interprets this as meaning that in explaining the average person’s intelligence, roughly 63% of that persons intelligence is inherited or caused by their genes. It is Juan’s interpretation correct? Why or why not?

Ans: No, heritability estimates indicate the percentage of population variance on a trait that is explained by genes, not an individual’s score on that trait.

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Application

Answer Location: Gender Identity

Difficulty Level: Hard

7. Describe a few qualities human males evolved to give them an upper hand in *intersexual* selection and explain why they are examples of intersexual selection specifically.

Ans: Examples include qualities such as physical size, greater strength, and competitive and aggressive tendencies because these qualities helped men to win competitions for mating opportunities against other men.

Learning Objective: 3-5: Examine the roles of nature and nurture in theories of the origins of sex differences.

Cognitive Domain: Comprehension

Answer Location: Evolutionary Psychology

Difficulty Level: Medium

# Essay

1. Consider both John Money’s optimal sex policy and the case story of David Reimer. Are the assumptions of John Money’s policy consistent or inconsistent with David Reimer’s experience? What do each imply about the role of nature and nurture in determining individuals’ gender identity? Provide an example of how John Money’s might recommend parents respond to the birth of an intersex child. Lastly, indicate whether or not David Reimer’s story might suggest recommendations different from John Money’s optimal sex policy.

Ans: John Money assumed that nurture is stronger than nature in determining individuals gender identity. He claimed that a child born with visually atypical genitals could be raised successfully as either female or male, contingent upon strong and consistent socialization pressure from parents and the surrounding environment. David Reimer was a genetic boy raised as a girl following a botched circumcision that accidentally removed most of his penis. However, David never felt like a girl growing up and later adopted a male gender identity. David’s experience suggests that nature can sometimes override nurture in determining gender identity, thus it is inconsistent with John Money’s optimal sex policy. John Money would recommend parents of intersex children to decide either to raise their child as a male or female from birth. David’s experience suggests that determining gender identity is more complex than socialization alone can explain, and that it may be best to wait until the child is old enough to contribute to decisions about their sex assignment.

Learning Objective: 3-3: Analyze the biological and sociocultural factors that shape sex assignment and gender identity.

Cognitive Domain: Analysis

Answer Location: Optimal Sex

Difficulty Level: Medium

2. Does the existence of sex differences in brain structure necessitate a stronger role of nature than nurture in causing these differences? Explain why or why not. Discuss both neural plasticity and the insights of neuroscientist Lise Eliot’s book, *Pink Brain, Blue Brain*, in your answer.

Ans: According to Lise Eliot gender stereotypes have the power to enlarge what our only small sex differences in infants brain structures of birth and great sex differences in brain structures that were not present at birth. This suggests that the different experiences of boys and girls may contribute to observed differences in brain structure. Thus the brain’s plasticity renders it modifiable by the different expectations and patterns of reward cultures impart upon boys and girls from a young age.

Learning Objective: 3-4: Evaluate evidence for sex differences in the brain and the prevalence of neurosexism.

Cognitive Domain: Analysis

Answer Location: Equating the Brain with “Nature”

Difficulty Level: Medium

3. Explain both evolutionary psychology’s and biosocial constructionist theory’s accounts of the role of nature and nurture in sex differences. Discuss where their predictions about sex differences diverge.

Ans: Evolutionary theorists tend to view the human brain as a fossil that represents adaptations to conditions that occurred tens of thousands of years ago, which means that recent changes in occupational or social roles should not change our fundamental psychology much. They propose that sex differences in tendencies such as mating preferences, competitiveness, sexual jealousy, and nurturance are genetically coded at the species level and therefore unlikely to change over the short term. Biosocial constructionist theorists assume that sex differences in psychological factors such as personality traits, mating preferences, and jealousy are not genetically heritable. From this view, sex differences in psychological variables are determined by how labor is divided in society, which is partly determined by biological sex differences in physical strength and size. Therefore they would predict that changes in social roles can create rapid changes in the psychology of men and women, resulting in changes in cultural gender stereotypes.

Learning Objective: 3-5: Examine the roles of nature and nurture in theories of the origins of sex differences.

Cognitive Domain: Analysis

Answer Location: Biosocial Constructionist Theory

Difficulty Level: Medium