CHAPTER 4

Nature, Nurture, and Human Diversity

CHAPTER OVERVIEW

Chapter 4 is concerned with the ways in which our biological heritage, or nature, interacts with our individual experiences, or nurture, to shape who we are. After a brief explanation of basic terminology, the chapter explores the fields of behavior genetics, which studies twins and adopted children to weigh genetic and environmental influences on behaviors. The next section discusses psychology's use of evolutionary principles to answer universal questions about human behavior.

The next two sections of the chapter shift the spotlight to focus on environmental influences on behavior. The impact of the prenatal environment, parents, early experience, peers, and culture on the development of the brain and behavior are each discussed. The final section of the chapter explores how genes and environment interact to shape both the biological and social aspects of our gender. In the end, the message is clear: our genes and our experience together form who we are.

NOTE: Answer guidelines for all Chapter 4 questions begin on page 96.

CHAPTER REVIEW

First, skim each section, noting headings and boldface items. After you have read the section, review each objective by answering the fill-in and essay-type questions that follow it. As you proceed, evaluate your performance by consulting the answers beginning on page 96. Do not continue with the next section until you understand each answer. If you need to, review or reread the section in the textbook before continuing.

Introduction (p. 133)

Objective 1: Give examples of differences and of similarities within the human family, noting how they are shaped by our genes and our environment.

1. Our differences as humans include our
   ____________, ____________, and ____________
   and ____________ backgrounds.

2. Our similarities as human beings include our
   common ____________, our shared ____________ architecture, our
   ability to use ____________, and our
   ____________ behaviors.

3. A fundamental question in psychology deals with
   the extent to which we are shaped by our heredi-
   ty, called our ____________, and by exter-
   nal influences, called our ____________.

Behavior Genetics: Predicting Individual Differences (pp. 134–143)

Objective 2: Identify the types of questions that interest behavior geneticists, and describe the elements of heredity: chromosome, DNA, gene, and genome.

1. Researchers who specifically study genetic and
   environmental influences on behavior are called
   ____________.

2. The term environment refers to every
   ____________ influence.
3. The master plans for development are stored in the _______________. In number, each person inherits ____________ of these structures, ____________ from each parent. Each is composed of a coiled chain of the molecule ____________.  

4. If chromosomes are the “chapters” of heredity, the “words” that make each of us a distinctive human being are called _________________.  

5. The complete instructions for making an organism are referred to as the human _________________.  

Objective 3: Describe how twin and adoption studies help us differentiate hereditary and environmental influences on human behavior.  

6. To study the power and limits of genetic influences on behavior, researchers use ________________ and ________________ studies.  

7. Twins who developed from a single egg are genetically _________________. Twins who developed from different fertilized eggs are no more genetically alike than siblings and are called ________________ twins.  

8. In terms of the personality traits of extraversion and neuroticism, identical twins are ________________ (more/no more) alike than are fraternal twins.  

9. Twin pairs reported ________________ (being treated alike/being treated differently). However, their similarities ________________ (could/could not) be attributed to how they were treated.  

10. Through research on identical twins raised apart, psychologists are able to study the influence of the _________________.  

11. Studies tend to show that the personalities of adopted children ________________ (do/do not) closely resemble those of their adoptive parents. However, adoption studies show that parenting ________________ (does/does not) matter. For example, many adopted children score ________________ (higher/lower) than their biological parents on intelligence tests.  

Objective 4: Discuss how the relative stability of our temperament illustrates the influence of heredity on development.  

12. The term that refers to the inborn personality, especially the child’s emotional excitability, is ________________, which ________________ (does/does not) endure over time.  

13. From the first weeks of life, ________________ babies are more ________________, ________________, and ________________. In contrast, ________________ babies are ________________, ________________, and ________________ in feeding and sleeping. Faced with a new or strange situation, anxious infants become ________________ (more/less) physiologically aroused than less excitable infants.  

Objective 5: Explain what is meant by heritability, and give examples of the interaction of genes and environment on specific traits.  

14. The extent to which variation among individuals can be attributed to differing genes is called ________________. Heritable individual differences ________________ (imply/do not necessarily imply) heritable group differences.  

15. Genes are self-______________; rather than acting as ________________ that always lead to the same result, they ________________ to the environmental context.  

16. For ________________ phenomena, human differences are nearly always the result of both ________________ and ________________ influences.  

17. Throughout life, we are the product of the ________________ of our ________________ predispositions and our surrounding ________________.  

18. Environments trigger activity in ________________, and our genetically influenced traits evoke ________________ in other people. This may explain why ________________ twins recall greater variations in their early family life than do ________________ twins.
Objective 6: Identify the potential uses of molecular genetics research.

19. The subfield of biology that seeks to identify some of the many genes that influence normal human traits is ________________.

Evolutionary Psychology: Understanding Human Nature (pp. 143–149)

Objective 7: Describe the area of psychology that interests evolutionary psychologists, and point out some possible effects of natural selection in the development of human characteristics.

1. Researchers who study natural selection and the adaptive nature of human behavior are called ________________.

2. Researchers in this field focus mostly on what makes people so ________________ (much alike/different from one another).

3. According to the principle of ________________, traits that lead to increased reproduction and survival will be most likely to be passed on to succeeding generations.

4. Genetic ________________ are random errors in genetic replication that are the source of all genetic ________________.

5. Genetic constraints on human behavior are generally ________________ (tighter/looser) than those on animal behavior. The human species' ability to ________________ and therefore to ________________ in responding to different ________________, defined as our ability to ________________ and ________________. Because of our genetic legacy, we love the tastes of sweets and ________________, which we tend to ________________, even though famine is unlikely in industrialized societies.

Objective 8: Identify some gender differences in sexuality and mating preferences, and describe evolutionary explanations for those differences.

6. The characteristics by which people define male and female constitute ________________. These characteristics are subject to ________________ and ________________ influences.

7. Compared to females, males are ________________ (equally/more/less) likely to engage in casual, impulsive sex, and they are ________________ (equally/more/less) likely to initiate sexual activity. This is an example of a ________________ difference.

8. The ________________ explanation of gender differences in attitudes toward sex is based on differences in the optimal strategy by which women and men pass on their ________________. According to this view, males and females ________________ (are/are not) selected for different patterns of sexuality.

9. Cross-cultural research reveals that men judge women as more attractive if they have a ________________ appearance, whereas women judge men who appear ________________; ________________, ________________, and ________________ as more attractive.

Objective 9: Summarize the criticisms of evolutionary explanations of human behaviors, and describe the evolutionary psychologists' responses to these criticisms.

10. Critics of the evolutionary explanation of the gender sexuality difference argue that it often works ________________ (forward/backward) to propose a ________________ explanation.

11. Another critique is that gender differences in sexuality vary with ________________ expectations. Gender differences in mate preferences are largest in cultures characterized by greater gender ________________ (equality/inequality).

12. Evolutionary psychologists counter the criticisms by noting that the sexes, having faced similar adaptive problems, are more ________________ (alike/different) than they are ________________ (alike/different). They also note that evolutionary principles offer testable ________________.
Parents and Peers (pp. 149–153)

Objective 10: Describe how experience can modify the brain.

1. Environmental influences begin during the period of _______________ development.

2. Rosenzweig and Krech discovered that rats raised from a young age in enriched environments had _______________ (thicker/thinner) brain cortices than animals raised in isolation.

Describe the effects of sensory stimulation on neural development.

3. Experience shapes the brain by preserving activated _______________ connections and allowing unused connections to _______________.
   This process, called _______________, results in a massive loss of unused connections by _______________.

Objective 11: Explain why we should be careful about attributing children's successes and failures to their parents' influence, and evaluate the importance of peer influence on development.

4. The idea that parents shape their children's futures came from _______________ and _______________.

5. Parents do influence some areas of their children's lives, such as their _______________ _______________, and _______________.

6. In areas such as _______________, the environment siblings share at home accounts for less than _______________ percent of their differences.

7. Experiences with _______________ have a powerful effect on how children develop, partly as a result of a _______________ effect by which kids seek out others with similar attitudes and interests.

Cultural Influences (pp. 153–158)

Objective 12: Describe how behavior is influenced by cultural norms.

1. The enduring behaviors, ideas, attitudes, values, and traditions of a group of people and transmitted from one generation to the next defines the group's _______________.

2. One landmark of human culture is the preservation of _______________, which is derived from our mastery of _______________ so that we can pass it on to future generations. Culture also enables an efficient division of _______________.

3. All cultural groups evolve their own rules for expected behavior, called _______________.

4. One such rule involves the buffer zone that people maintain around their bodies, called _______________.

Identify several cultural differences in personal space, expressiveness, and pace of life.

5. The speed at which culture changes is much _______________ (faster/slower) than the pace of evolutionary changes in the human _______________.

Objective 13: Identify some ways a primarily individualist culture differs from a primarily collectivist culture, and compare their effects on personal identity and child-rearing.

6. Cultures based on _______________ value personal _______________ and individual
Examples of such cultures occur in ____________, ____________, and _____________.

In contrast, cultures based on ____________ value ____________, ____________, and _____________. Examples of such cultures occur in ____________, ____________, and _____________.

Whereas people in ____________ cultures value freedom, they suffer more ____________, divorce, ____________, and ____________-, related disease.

Whereas most Western parents place more emphasis on ____________ (emotional closeness/independence) in their children, many Asian and African parents focus on cultivating ____________ (emotional closeness/independence).

Children in collectivist cultures grow up with a strong sense of ____________, a sense that what shames or honors the person also shames or honors the family.

In general, differences between groups are ____________ (smaller/larger) than person-to-person differences within groups.

**Gender Development** (pp. 159–166)

**Objective 14**: Discuss gender similarities and differences in psychological traits such as aggression, social power, and social connectedness.

1. Among your ____________ (how many?) chromosomes, ____________ (how many?) are unisex.

2. Compared with the average man, an average woman has more ____________, less ____________, and is a few inches ____________. Women are more likely than men to suffer from ____________, ____________, and _____________.

3. Compared with women, men are more likely to commit ____________ and to suffer ____________. They are also more likely to be diagnosed with _____________.

4. Aggression is defined as ____________ or ____________ behavior that is ____________ to hurt someone.

5. Throughout the world, men are more likely than women to engage in ____________, ____________, and _____________.

6. The aggression gender gap pertains to ____________ rather than ____________ aggression.

7. Compared with women, men are perceived as being more ____________, ____________, and ____________. As leaders, they tend to be more ____________, while women are more _____________.

8. Compared with men, women are perceived as being more ____________, ____________, and _____________.

9. These perceived differences occur ____________ (throughout the world/only in certain cultures).

10. According to Carol Gilligan, women are more concerned than men in making ____________ with others.

11. This difference is noticeable in how children ____________, and it continues throughout the teen and adult years. Girls play in groups that are ____________ and less ____________ than boys’ groups.

12. Because they are more ____________, women are likely to use conversation to ____________, while men are likely to use conversation to ____________. 
13. Women tend and befriend—for example, they turn to others for ____________ , especially when coping with ____________.

14. Gender differences in power, connectedness, and other traits peak in late ____________ and early ____________. By age 50, the differences have ____________ (decreased / increased).

Objective 15: Explain how biological sex is determined, and describe the role of sex hormones in biological development and gender differences.

15. The twenty-third pair of chromosomes determines the developing person’s ____________. The mother always contributes a(n) ____________ chromosome. When the father contributes a(n) ____________ chromosome, the testes begin producing the hormone ____________. In about the ____________ (what week?), this hormone initiates the development of external male sex organs.

16. Sex chromosomes control ____________ that influence the brain’s wiring. In adulthood, part of the ____________ lobe, an area involved in ____________ fluency, is thicker in women. Part of the brain’s ____________ cortex, a key area for ____________ perception, is thicker in men.

Objective 16: Discuss the importance of gender roles in development, and describe current views regarding gender typing.

17. Our expectations about the way men and women behave define our culture’s ____________ ____________.

18. Gender roles ____________ (are / are not) rigidly fixed by evolution, as evidenced by the fact that they vary across ____________ and over _____________. For instance, in ____________ societies there tends to be minimal division of labor by sex; by contrast, in ____________ societies, women remain close to home while men roam freely, herding cattle or sheep.

19. Our individual sense of being male or female is called our ____________ ____________. The degree to which we exhibit traditionally male or female traits and interests is called ____________ ____________.

20. According to ____________ theory, children learn gender-linked behaviors by observing and imitating others and being rewarded or punished. When their families discourage traditional gender typing, children ____________ (do / do not) organize themselves into “boy worlds” and “girl worlds.”

21. Children also learn from their ____________ ____________ what it means to be male or female and adjust their behavior accordingly, thereby demonstrating that ____________ is important in the formation of gender identity.

Reflections on Nature and Nurture (pp. 166–169)

Objective 17: Describe the biopsychosocial approach to development.

1. As brute strength becomes ____________ (more / less) relevant to power and status, gender roles are ____________ (converging / diverging).

2. We are the product of both ____________ and ____________, but we are also a system that is ____________. We know this because a ____________ approach to development shows that no single factor is all-powerful.

3. The principle that we should prefer the simplest of competing explanations for a phenomenon is called ____________ ____________.
PROGRESS TEST 1

Multiple-Choice Questions

Circle your answers to the following questions and check them with the answers on page 98. If your answer is incorrect, read the explanation for why it is incorrect and then consult the appropriate pages of the text (in parentheses following the correct answer).

1. Dr. Ross believes that principles of natural selection help explain why infants come to fear strangers about the time they become mobile. Dr. Ross is most likely a(n)
   a. behavior geneticist.
   b. molecular geneticist.
   c. evolutionary psychologist.
   d. molecular biologist.

2. A pair of adopted children or identical twins reared in the same home are most likely to have similar
   a. temperaments.
   b. personalities.
   c. religious beliefs.
   d. emotional reactivity.

3. Collectivist cultures
   a. give priority to the goals of their groups.
   b. value the maintenance of social harmony.
   c. foster social interdependence.
   d. are characterized by all of the above.

4. If a fraternal twin develops schizophrenia, the likelihood of the other twin developing serious mental illness is much lower than with identical twins. This suggests that
   a. schizophrenia is caused by genes.
   b. schizophrenia is influenced by genes.
   c. environment is unimportant in the development of schizophrenia.
   d. identical twins are especially vulnerable to mental disorders.

5. Of the following, the best way to separate the effects of genes and environment in research is to study
   a. fraternal twins.
   b. identical twins.
   c. adopted children and their adoptive parents.
   d. identical twins raised in different environments.

6. Through natural selection, the traits that are most likely to be passed on to succeeding generations are those that contribute to
   a. temperament.  c. aggressiveness.
   b. survival.      d. social power.

7. Which of the following is NOT true regarding gender and sexuality?
   a. Men more often than women attribute a woman's friendliness to sexual interest.
   b. Women are more likely than men to cite affection as a reason for first intercourse.
   c. Men are more likely than females to initiate sexual activity.
   d. Gender differences in sexuality are noticeably absent among gay men and lesbian women.

8. Evolutionary psychologists attribute gender differences in sexuality to the fact that women have
   a. greater reproductive potential than do men.
   b. lower reproductive potential than do men.
   c. weaker sex drives than men.
   d. stronger sex drives than men.

9. According to evolutionary psychology, men are drawn sexually to women who seem ______, while women are attracted to men who seem _________.
   a. nurturing; youthful
   b. youthful and fertile; mature and affluent
   c. slender; muscular
   d. exciting; dominant

10. Unlike ________ twins, who develop from a single fertilized egg, ________ twins develop from separate fertilized eggs.
    a. fraternal; identical
    b. identical; fraternal
    c. placental; nonplacental
    d. nonplacental; placental

11. Temperament refers to a person's characteristic
    a. emotional reactivity and intensity.
    b. attitudes.
    c. behaviors.
    d. role-related traits.

12. When evolutionary psychologists use the word fitness, they are specifically referring to
    a. an animal's ability to adapt to changing environments.
    b. the diversity of a species' gene pool.
    c. the total number of members of the species currently alive.
    d. our ability to survive and reproduce.
13. The traditions of a culture are passed from one generation to the next by means of
   a. norms.
   b. temperaments.
   c. genes.
   d. chromosomes.

14. Physiological tests reveal that anxious, inhibited infants
   a. become less physiologically aroused when facing new situations.
   b. have slow, steady heart rates.
   c. have high and variable heart rates.
   d. have underreactive nervous systems.

15. Which of the following most accurately expresses the extent of parental influence on personality?
   a. It is more extensive than most people believe.
   b. It is weaker today than in the past.
   c. It is more limited than popular psychology supposes.
   d. It is almost completely unpredictable.

16. Gender refers to
   a. the biological and social definition of male and female.
   b. the biological definition of male and female.
   c. one’s sense of being male or female.
   d. the extent to which one exhibits traditionally male or female traits.

17. The fertilized egg will develop into a boy if, at conception,
   a. the sperm contributes an X chromosome.
   b. the sperm contributes a Y chromosome.
   c. the egg contributes an X chromosome.
   d. the egg contributes a Y chromosome.

18. A molecular geneticist would be most interested in studying
   a. why most parents are so passionately devoted to their children.
   b. environmental influences on skin color.
   c. why certain diseases are more common among certain age groups.
   d. which genes influence extraversion.

19. The hormone testosterone
   a. is found only in females.
   b. determines the sex of the developing person.
   c. stimulates growth of the female sex organs.
   d. stimulates growth of the male sex organs.

20. Research studies have found that when infant rats and premature human babies are regularly touched or massaged, they
   a. become attached to the person doing the massaging.
   b. develop faster neurologically.
   c. have more agreeable temperaments.
   d. do none of these things.

Matching Items
Match each term with its corresponding definition or description.

Terms

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<tr>
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<th>1. X chromosome</th>
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<td>11. environment</td>
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Functions or Descriptions

a. the biochemical units of heredity
b. twins that develop from a single egg
c. one’s personal sense of being female or male
d. a set of expected behaviors for males and females
e. twins that develop from separate eggs
f. an understood rule for accepted and expected behavior
g. nongenetic influences
h. the sex chromosome found in both women and men
i. the acquisition of a traditional gender role
j. a complex molecule containing the genetic information that makes up the chromosomes
k. the sex chromosome found only in men
PROGRESS TEST 2

Progress Test 2 should be completed during a final chapter review. Answer the following questions after you thoroughly understand the correct answers for the section reviews and Progress Test 1.

Multiple-Choice Questions

1. Each cell of the human body has a total of
   a. 23 chromosomes.
   b. 23 genes.
   c. 46 chromosomes.
   d. 46 genes.

2. Genes direct our physical development by synthesizing
   a. hormones.
   b. proteins.
   c. DNA.
   d. chromosomes.

3. The genome is best defined as
   a. a complex molecule containing genetic information that makes up the chromosomes.
   b. a segment of DNA.
   c. the complete instructions for making an organism.
   d. the code for synthesizing protein.

4. Most human traits are
   a. learned.
   b. determined by a single gene.
   c. influenced by many genes acting together.
   d. unpredictable.

5. Mutations are random errors in ______ replication.
   a. gene
   b. chromosome
   c. DNA
   d. protein

6. Casual, impulsive sex is most frequent among
   a. males with high circulating levels of testosterone.
   b. males with traditional masculine attitudes.
   c. females and males who are weakly gender typed.
   d. females and males who are strongly gender typed.

7. Evolutionary explanations of gender differences in sexuality have been criticized because
   a. they offer “after-the-fact” explanations.
   b. standards of attractiveness vary with time and place.
   c. they underestimate cultural influences on sexuality.
   d. of all of these reasons.

8. Several studies of long-separated identical twins have found that these twins
   a. have little in common because of the different environments in which they were raised.
   b. have many similarities, in everything from medical histories to personalities.
   c. have similar personalities, but very different likes, dislikes, and life-styles.
   d. are no more similar than are fraternal twins reared apart.

9. Adoption studies show that the personalities of adopted children
   a. closely match those of their adoptive parents.
   b. bear more similarities to their biological parents than to their adoptive parents.
   c. closely match those of the biological children of their adoptive parents.
   d. closely match those of other children reared in the same home, whether or not they are biologically related.

10. Of the following, parents are most likely to influence their children’s
    a. temperament.
    b. personality.
    c. faith.
    d. emotional reactivity.

11. Chromosomes are composed of small segments of
    a. DNA called genes.
    b. DNA called neurotransmitters.
    c. genes called DNA.
    d. DNA called enzymes.

12. When the effect of one factor (such as environment) depends on another (such as heredity), we say there is a(n) ______ between the two factors.
    a. norm
    b. positive correlation
    c. negative correlation
    d. interaction
13. Compared with Westerners, people in communal societies, such as Japan or China,
   a. have a stronger sense of family.
   b. exhibit greater shyness toward strangers.
   c. exhibit greater concern for loyalty and social harmony.
   d. have all of these characteristics.

14. The selection effect in peer influence refers to the tendency of children and youth to
   a. naturally separate into same-sex playgroups.
   b. establish large, fluid circles of friends.
   c. seek out friends with similar interests and attitudes.
   d. choose friends their parents like.

15. Which of the following is NOT true regarding cultural diversity?
   a. Culture influences emotional expressiveness.
   b. Culture influences personal space.
   c. Culture does not have a strong influence on how strictly social roles are defined.
   d. All cultures evolve their own norms.

16. Women and men are most likely to be attracted to strongly gender-typed mates in cultures characterized by
   a. gender inequality.
   b. gender equality.
   c. flexible gender roles.
   d. few norms.

17. An evolutionary psychologist would be most interested in studying
   a. why most parents are so passionately devoted to their children.
   b. hereditary influences on skin color.
   c. why certain diseases are more common among certain age groups.
   d. genetic differences in personality.

18. Children who are raised by parents who discourage traditional gender typing
   a. are less likely to display gender-typed behaviors themselves.
   b. often become confused and develop an ambiguous gender identity.
   c. nevertheless organize themselves into “girl worlds” and “boy worlds.”
   d. display excessively masculine and feminine traits as adults.

19. Genetically male children who underwent sex-reassignment surgery and were raised as girls later
   a. all described themselves as female.
   b. all described themselves as male.
   c. all had an unclear sexual identity.
   d. described themselves either as female or male, or had an unclear sexual identity.

20. Providing a child with a stimulating educational environment during early childhood is likely to
   a. ensure the formation of a strong attachment with parents.
   b. foster the development of a calm, easygoing temperament.
   c. prevent neural connections from degenerating.
   d. do all of these things.

**True–False Items**
Indicate whether each statement is true or false by placing T or F in the blank next to the item.

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<thead>
<tr>
<th></th>
<th>Statement</th>
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<td>1</td>
<td>Gender differences in mate preferences vary widely from one culture to another.</td>
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<td>2</td>
<td>The most emotionally reactive newborns tend to be the most restrained 9-month-olds.</td>
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<td>3</td>
<td>Research on twins shows a substantial genetic influence on attitudes toward organized religion and many other issues.</td>
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<td>Genes act as blueprints that lead to the same result no matter the context.</td>
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<td>5</td>
<td>Compared with identical twins reared in different families, fraternal twins recall their early family life more differently.</td>
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<td>6</td>
<td>Parents have a stronger influence than do peers on whether a youth starts smoking.</td>
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<td>7</td>
<td>Nature selects behavioral tendencies that increase the likelihood of sending one’s genes into the future.</td>
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<td>8</td>
<td>People from individualist cultures avoid direct confrontation and blunt honesty.</td>
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<tr>
<td>9</td>
<td>Parental influence on personality is more limited than popular psychology supposes.</td>
<td>T</td>
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<tr>
<td>10</td>
<td>North Americans prefer more personal space than do Latin Americans.</td>
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</table>
11. Lacking any exposure to language before adolescence, a person will never master any language.

PSYCHOLOGY APPLIED

Answer these questions the day before an exam as a final check on your understanding of the chapter's terms and concepts.

Multiple-Choice Questions

1. If chromosomes are the "chapters" of heredity, the "words" are the
   a. genes.
   b. molecules.
   c. genomes.
   d. DNA.

2. Although the fitness center has many unused lockers, Rabab picks a locker right next to Chalina's, who feels uncomfortable because Rabab has intruded into her
   a. gender norm.
   b. personal space.
   c. gender role.
   d. cultural schema.

3. After comparing divorce rates among identical and fraternal twins, Dr. Alexander has concluded that genes do play a role. Dr. Alexander is most likely a(n)
   a. evolutionary psychologist.
   b. behavior geneticist.
   c. molecular geneticist.
   d. divorcee.

4. Despite growing up in the same home environment, Karen and her brother John have personalities as different from each other as two people selected randomly from the population. Why is this so?
   a. Personality is inherited. Because Karen and John are not identical twins, it is not surprising they have very different personalities.
   b. Gender is the most important factor in personality. If Karen had a sister, the two of them would probably be much more alike.
   c. The interaction of their individual genes and nonshared experiences accounts for the common finding that children in the same family are usually very different.
   d. Their case is unusual; children in the same family usually have similar personalities.

5. I am a rat whose cortex is lighter and thinner than my littermates. What happened to me?
   a. You were born prematurely.
   b. You suffer from fetal alcohol syndrome.
   c. You were raised in an enriched environment.
   d. You were raised in a deprived environment.

6. Chad, who grew up in the United States, is more likely to encourage _____ in his future children than Asian-born Hidiyaki, who is more likely to encourage _____ in his future children.
   a. obedience; independence
   b. independence; emotional closeness
   c. emotional closeness; obedience
   d. loyalty; emotional closeness

7. One of the best ways to distinguish how much genetic and environmental factors affect behavior is to compare children who have
   a. the same genes and environments.
   b. different genes and environments.
   c. similar genes and environments.
   d. the same genes but different environments.

8. My sibling and I developed from a single fertilized egg. Who are we?
   a. opposite-sex identical twins
   b. same-sex identical twins
   c. opposite-sex fraternal twins
   d. same-sex fraternal twins

9. A psychologist working from the evolutionary perspective is likely to suggest that people are biologically predisposed to
   a. protect their offspring.
   b. like sweets.
   c. be attracted to fertile-appearing members of the opposite sex (if they are male).
   d. do all of these things.

10. Rod has always felt pressure to be the driver when traveling in a car with Sue because he learned that this was expected of men. Rod's feelings illustrate the influence of
    a. temperament.
    b. gender roles.
    c. the selection effect.
    d. natural selection.

11. Compared with men, women
    a. use conversation to communicate solutions.
    b. emphasize freedom and self-reliance.
    c. talk more openly.
    d. do all of these things.
12. Of the relatively few genetic differences among humans _____ are differences among population groups.
   a. less than 1 percent
   b. less than 10 percent
   c. approximately 25 percent
   d. approximately 40 to 50 percent

13. Responding to the argument that gender differences are often by-products of a culture’s social and family structures, an evolutionary psychologist is most likely to point to
   a. our great human capacity for learning.
   b. the tendency of cultural arguments to reinforce traditional gender inequalities.
   c. the infallibility of hindsight explanations.
   d. all of these statements.

14. A person whose twin has Alzheimer’s disease has _____ risk of sharing the disease if they are identical twins than if they are fraternal twins.
   a. less
   b. about the same
   c. a much greater
   d. an unpredictable

15. Which of the following is an example of an interaction?
   a. Swimmers swim fastest during competition against other swimmers.
   b. Swimmers with certain personality traits swim fastest during competition, while those with other personality traits swim fastest during solo time trials.
   c. As the average daily temperature increases, sales of ice cream decrease.
   d. As the average daily temperature increases, sales of lemonade increase.

16. Which of the following most accurately summarizes the findings of the 40-year fox-breeding study described in the text?
   a. Wild foxes cannot be domesticated.
   b. “Survival of the fittest” seems to operate only when animals live in their natural habitats.
   c. By mating aggressive and unaggressive foxes, the researchers created a mutant species.
   d. By selecting and mating the tamest males and females, the researchers have produced affectionate, unaggressive offspring.

17. Compared with men, women are more likely to
   a. be concerned with their partner’s physical attractiveness.
   b. initiate sexual activity.
   c. cite “liking one another” as a justification for having sex in a new relationship.
   d. be less accepting of casual sex.

18. When his son cries because another child has taken his favorite toy, Brandon admonishes him by saying, “Big boys don’t cry.” Evidently, Brandon is an advocate of _____ in accounting for the development of gender-linked behaviors.
   a. Freudian theory
   b. gender identity theory
   c. gender-typing theory
   d. social learning theory

19. Four-year-old Sarah, who has very specific ideas about what it means to be female and frequently adjusts her behavior accordingly, is demonstrating the importance of _____ in the formation of gender identity.
   a. gender schemas
   b. norms
   c. genes
   d. behavior genetics

20. Three-year-old Jack is inhibited and shy. As an adult, Jack is likely to be
   a. cautious and unassertive.
   b. spontaneous and fearless.
   c. socially assertive.
   d. Who knows? This aspect of personality is not very stable over the life span.

Essay Question
Lakia’s new boyfriend has been pressuring her to become more sexually intimate than she wants to at this early stage in their relationship. Strongly gender typed and “macho” in attitude, Jerome is becoming increasingly frustrated with Lakia’s hesitation, while Lakia is starting to wonder if a long-term relationship with this type of man is what she really wants. In light of your understanding of the evolutionary explanation of gender differences in sexuality, explain why the tension between Lakia and Jerome would be considered understandable.