

mainly involved in treatment grew enormously. Specialties in treating children, adolescents, students, older people, and athletes emerged. Industries and organizations hired psychologists to help them prosper. The field became more fragmented and specialized.

Research and applied psychologists deal with a huge number of topics. Topics can be grouped into broad categories known as domains. Psychologists specializing in different domains identify themselves with many labels. Examples include the following:

Clinical psychologists evaluate and treat mental, emotional, and behavioral disorders.

Counseling psychologists help people adapt to change or make changes in their lifestyle.

Developmental psychologists study psychological development throughout the lifespan.

Educational psychologists focus on how effective teaching and learning take place.

Engineering psychologists and human factors psychologists promote the development and application of psychology to improve technology, consumer products, energy systems, communication and information, transportation, decision making, work settings, and living environments.

Forensic psychologists apply psychological principles to legal issues.

Health psychologists concentrate on biological, psychological, and social factors involved in health and illness.

Industrial/organizational psychologists aim to improve productivity and the quality of work life by applying psychological principles and methods to the workplace.

Neuropsychologists explore the relationships between brain/nervous systems and behavior. Neuropsychologists are also called biological psychologists or biopsychologists, behavioral geneticists, physiological psychologists, and behavioral neuroscientists.

Personality psychologists focus on aspects of the individual such as traits, attitudes, and goals.

Psychometricians, sometimes called psychometric psychologists or measurement psychologists, focus on methods for acquiring and analyzing psychological data.

Rehabilitation psychologists help clients with mental retardation, developmental disabilities, and disabilities resulting from stroke or accidents adapt to their situations.

School psychologists assess and counsel students, consult with educators and parents, and perform behavioral intervention when necessary.

Social psychologists focus on how a person's mental life and behavior are shaped by interactions with other people.

Sports psychologists help athletes refine their focus on competition goals, increase motivation, and deal with anxiety and fear of failure.

> Review Questions

History + Approaches

Directions: For each item, choose the letter of the choice that best completes the statement or answers the question.

- Wilhelm Wundt and the structuralists studied questions still asked today primarily by
 - behavioral psychologists
 - cognitive psychologists
 - psychodynamic psychologists
 - humanistic psychologists
 - sociocultural psychologists
- With which definition of psychology would John Watson and B. F. Skinner most agree?
 - Psychology is the science of behavior.
 - Psychology is the science of mental processes.
 - Psychology is the science of behavior and mental processes.
 - Psychology is the science of behavior and mental processes specific to contexts.
 - Psychology is the extension of population.

3. The question, "Is intelligence more influenced by heredity or experience?" deals with a big issue in psychology known as
 - (A) stability vs. change
 - (B) mind-body dualism
 - (C) rationality vs. irrationality
 - (D) structure vs. function
 - (E) nature vs. nurture
4. If Aristotle and Locke, who both believed that what we know is acquired from experience, were alive today, they would best agree with the
 - (A) behavioral approach
 - (B) psychoanalytic approach
 - (C) humanistic approach
 - (D) biological approach
 - (E) psychodynamic approach
5. Which psychological approach is most concerned with the importance of encoding, storing, and retrieving information?
 - (A) information technology
 - (B) behavioral approach
 - (C) psychodynamic approach
 - (D) biological approach
 - (E) cognitive approach
6. Dr. Didden was hired by the TLC Company to help it retain its employees without lowering the firm's profits. After TLC removed cubicles and permitted employees to decorate their workroom as recommended by Dr. Didden, the absentee rate declined and no employees left for jobs elsewhere. Dr. Didden is most likely to be
 - (A) a forensic psychologist
 - (B) an industrial/organizational psychologist
 - (C) a counseling psychologist
 - (D) a clinical psychologist
 - (E) an engineering psychologist

> Answers and Explanations

1. **B**—Wilhelm Wundt, Hall, and Titchener studied the basic elements of consciousness. Consciousness is currently called cognition. Cognitive psychologists examine thinking, memory, etc. using different methods.
2. **A**—John Watson and B. F. Skinner rejected the study of consciousness/mental processes because they are private events that cannot be verified scientifically. These behaviorists focused on the antecedents of a behavior, the behavior, and the consequences of the behavior.
3. **E**—The nature-nurture issue deals with the relative contribution of genes and experience to the expressions of psychological traits and behaviors.
4. **A**—Behaviorists think that what we know is gained through learning. The other approaches accept that some of our behavior is inborn.
5. **E**—Cognitive psychologists focus on how we acquire, maintain, and use information.
6. **B**—Industrial/organizational psychologists examine and assess the conditions, methods, and procedures in the workplace and apply psychological principles to help improve the working environment to increase productivity and job satisfaction.

> Rapid Review

Psychology—the science of behavior and mental processes

Monism—seeing mind and body as different aspects of the same thing

Dualism—seeing mind and body as two different things that interact

Nature-Nurture Controversy—the extent to which behavior results from heredity or experience

Plato and Descartes believed that behavior is inborn (nature).

Aristotle, Locke, Watson, and Skinner believed that behavior results from experience (nurture).

Psychologists who conduct research involving other animals must treat them humanely; acquire, care for, use, and dispose of animals properly; and they must make efforts to minimize their discomfort, infection, illness, and pain.

Review Questions

Research Methods

Directions: For each question, choose the letter of the choice that best completes the statement or answers the question.

- Organized sets of concepts that explain phenomena are
 - independent variables
 - dependent variables
 - hypotheses
 - theories
 - statistics

Refer to the following and your knowledge of psychology to answer questions 2 and 3:

Students will be able to read a statement printed in the Comic Sans font faster than the same statement written in the Lucida Calligraphy font.

- This statement is a(n)
 - hypothesis
 - theory
 - replication
 - operational definition
 - correlation
- The dependent variable in an experiment based on the statement would be
 - the statement written in the Comic Sans font
 - the statement written in the Lucida Calligraphy font
 - the length of time it takes students to read the statements
 - the students who read the statements written in the Comic Sans font
 - the number of students who participate in the experiment
- A quasi-experiment cannot be considered a controlled experiment because
 - subjects cannot be randomly selected
 - subjects cannot be randomly assigned
 - experimenter bias is unavoidable
 - demand characteristics are unavoidable
 - too few subjects participate in the procedure

Refer to the following and your knowledge of psychology to answer questions 5 and 6:

When subjects in the experimental group put a puzzle piece in the wrong place, the experimenter unconsciously winced. The experimenter did not wince when subjects in the control group put a piece in the wrong place.

- The wincing of the experimenter must be eliminated because it is
 - fraudulent
 - a demand characteristic
 - a placebo effect
 - a confabulation
 - a confounding variable
- One method to eliminate the wincing of the experimenter is by instituting
 - the experimenter expectancy effect
 - the single-blind procedure
 - the double-blind procedure
 - the placebo effect
 - counterbalancing
- Of the following, which research method is most effective for studying unusually complex or rare phenomena?
 - controlled experiment
 - quasi-experiment
 - test
 - survey
 - case study
- Of the following, which research method would be most appropriate for investigating the relationship between political party membership and attitude toward the death penalty?
 - controlled experiment
 - quasi-experiment
 - test
 - survey
 - case study

9. Of the following, the strongest positive correlation would most likely be shown between
- an adult's weight and running speed
 - close friendships and happiness
 - sense of humor and years of education
 - poverty and good health
 - visual acuity and salary
10. John wants to study the effects of alcohol on the behavior of college students. For his study, he spends 5 hours every night for 2 weeks at a bar near a college watching how the patrons act before and after drinking alcoholic beverages. The research method John is employing is a
- controlled experiment
 - quasi-experiment
 - test
 - naturalistic observation
 - case study
11. Of the following, which can establish a cause and effect relationship?
- controlled experiment
 - quasi-experiment
 - correlational research
- I only
 - II only
 - I and II only
 - I and III only
 - I, II, and III
12. The range of this distribution is
- \$ 75,000
 - \$ 50,000
 - \$ 25,000
 - \$ 20,000
 - \$ 15,000
13. For this distribution, the mean is
- lower than both the median and the mode
 - lower than the median, but higher than the mode
 - lower than the mode, but higher than the median
 - higher than both the median and the mode
 - the same as the median
14. The frequency polygon for this distribution resembles a
- normal curve
 - positively skewed line graph
 - negatively skewed line graph
 - bar graph
 - scatterplot
- Refer to the following and your knowledge of psychology to answer questions 12–14:**
Ms. Costas owns a business with nine other employees. Ms. Costas's annual salary is \$90,000. Her manager's salary is \$60,000. Of her other employees, three earn \$25,000 each and five earn \$15,000 each.

➤ Answers and Explanations

- D**—This is the definition of theory.
- A**—A hypothesis predicts how two or more factors are related. This statement relates the appearance of a font with the speed at which it can be read.
- C**—The dependent variable in an experiment is the factor that is measured. In this experiment, the type of font is the factor the experimenter is manipulating or the independent variable. The speed at which it is read is the factor that is measured or the dependent variable.
- B**—Quasi-experiments deal with groups that have preexisting differences, such as males and females, young and old, etc. Since the study is examining differences associated with those preexisting differences, participants are assigned on the basis of sex, age, etc. Thus, random assignment is not possible.
- E**—The wincing behavior of the experimenter is an unintentional difference between the treatment of the experimental group and the treatment of the control group. An additional difference between the experimental and control groups is a confounding variable. If the wincing is deliberate, then it is considered dishonest, possibly even fraudulent.
- C**—The double-blind procedure, in which neither the experimenter nor the subjects know who is in the experimental group and who is in the control group, would probably eliminate the wincing behavior. A single-blind procedure in which only the subjects do not know in which treatment group they have been placed would not affect the experimenter's behavior.

7. **E**—An in-depth examination, usually over an extended period of time, characterizes the case study method.
8. **D**—Correlational research examines the relationship between two variables. Questionnaires or interviews that ask questions about political party membership and attitude toward the death penalty distributed to a large representative sample of the population could gather appropriate data for the study. Questionnaires and interviews are kinds of surveys.
9. **B**—People who have close friendships tend to be happy. Lonely people tend to be unhappy. The presence of close friendships predicts happiness. An adult's weight and running speed (A), sense of humor and years of education (C), and visual acuity and salary (E) are unrelated pairs of factors. Impoverished people are less likely to be healthy than people who have more money, so (D) indicates an inverse relationship or negative correlation.
10. **D**—He is gathering information in the field about typical behavior of people without manipulating any variables, which characterizes naturalistic observation.
11. **A**—Only controlled experiments can establish cause and effect relationships.
12. **A**—The range is \$90,000 to \$15,000, or \$75,000. To find the range, deduct the lowest score from the highest score.
13. **D**—The mean is determined by adding all of the scores and then dividing by the number of scores. $\$300,000 \div 10 = \$30,000$. The median is the middle score in the ordered distribution. Since there is an even number of scores in the distribution, the median is halfway between the 5th and 6th scores, or \$20,000. The most frequent score or mode is \$15,000, so the mean is higher than both the median and the mode.
14. **B**—A frequency polygon is a line graph. A positively skewed distribution has scores clustered toward the low end of the range and a small number of unusually high scores. If you draw the graph with the value of scores on the *X* axis and the frequency of scores on the *Y* axis, you can see that the tail is on the right or more positive side of the graph.

> Rapid Review

Theories—organized sets of concepts that explain phenomena.

Hypothesis—prediction of how two or more factors are likely to be related.

Replication—repetition of the methods used in a previous experiment to see whether the same methods will yield the same results.

Independent variable (IV)—the factor the researcher manipulates in a controlled experiment (the cause).

Dependent variable (DV)—the behavior or mental process that is measured in an experiment or quasi-experiment (the effect).

Population—all of the individuals in the group to which the study applies.

Sample—the subgroup of the population that participates in the study.

Random selection—choosing of members of a population so that every individual has an equal chance of being chosen to participate in a study.

Experimental group—the subgroup of the sample that receives the treatment or independent variable.

Control group—the comparison group; the subgroup of the sample that is similar to the experimental group in every way except for the presence of the independent variable.

> Review Questions

Cognition

Directions: For each question, choose the letter of the choice that best completes the statement or answers the question.

- The three stages of the Atkinson–Shiffrin process of memory are
 - iconic, echoic, encoding
 - sensory, short term, long term
 - shallow, medium, and deep processing
 - semantic, episodic, procedural
 - cerebellum, temporal lobe, hippocampus
- Which of the following examples best illustrates episodic memory?
 - telling someone how to tie a shoe
 - answering correctly that the Battle of Hastings was in 1066
 - knowing that the word for black in French is noir
 - remembering that a clown was at your fifth birthday party
 - long-term memory for the times tables learned in second grade
- Doug wrote a grocery list of 10 items, but leaves it at home. The list included in order: peas, corn, squash, onions, apples, pears, bananas, flour, milk, and eggs. If the law of primacy holds, which of the following is Doug most likely to remember when he gets to the store?
 - peas, pears, eggs
 - banana, flour, peas
 - apples, pears, bananas
 - flour, milk, eggs
 - peas, corn, onions
- In the example above, which of the items would be recalled in Doug's short-term memory immediately after writing the list?
 - peas, corn, squash
 - peas, corn, onions
 - apples, pears, bananas
 - flour, milk, eggs
 - flour, corn, bananas
- According to the levels of processing theory of memory,
 - we remember items that are repeated again and again
 - maintenance rehearsal will encode items into our long-term memory
 - deep processing involves elaborative rehearsal ensuring encoding into long-term memory
 - input, output, and storage are the three levels
 - we can only hold 7 items in our short-term memory store before it is full
- Which of the following brain structures plays a key role in transferring information from short-term memory to long-term memory?
 - hypothalamus
 - thalamus
 - hippocampus
 - frontal lobe
 - parietal lobe
- Dai was drunk, so his girlfriend convinced him to get out of his car, and she drove him home in her car. He could not remember where his car was parked when he got up the next morning, but after drinking some liquor, Dai remembered where he left his car. This phenomenon best illustrates
 - the misinformation effect
 - mood-congruent memory
 - the framing effect
 - state-dependent memory
 - anterograde amnesia
- Phonemes are:
 - the rules of grammar that dictate letter combinations in a language
 - the smallest unit of sound in a language
 - the smallest unit of meaning in a language
 - semantically the same as morphemes
 - about 100 different words that are common to all languages

9. Because it has all of the features commonly associated with the concept bird, a robin is considered
- a prototype
 - a schematic
 - an algorithm
 - a phenotype
 - a heuristic
10. Compared to convergent thinkers, to solve a problem, divergent thinkers are more likely to:
- process information to arrive at the single best answer
 - think creatively and generate multiple answers
 - problem solve in a systematic step-by-step fashion
 - frequently suffer from functional fixedness
 - use algorithms rather than heuristics to arrive at a solution
11. Unlike B. F. Skinner, Noam Chomsky believes that children
- learn to speak by mimicking the sounds around them
 - speak more quickly if their parents correct their mispronunciations early
 - are hard-wired for language acquisition
 - learn language more quickly if positive rewards are given to them
 - can learn to speak correctly only during a critical age
12. Which of the following is a good example of functional fixedness?
- failing to use a dime as a screwdriver when you have lost your screwdriver
 - not being able to solve a physics problem because you apply the same rule you always do
 - using a blanket as a pillow
 - adding water to a cake mix when it calls for milk
 - thinking of an apple first when you are asked to name fruits
13. Having been told that Syd is an engineer and Fran is an elementary school teacher, when Arnold meets the couple for the first time, he assumes that Syd is the husband and Fran is the wife, rather than the opposite, which is the case. This best illustrates:
- confirmation bias
 - cognitive illusion
 - the mere exposure effect
 - the anchoring effect
 - the representativeness heuristic
14. Which of the following is a holophrase one-year-old Amanda is likely to say?
- "Mmmm"
 - "Gaga"
 - "Eat apple"
 - "I eated the cookie"
 - "Bottle"
15. Which of the following exemplifies retroactive interference?
- After suffering a blow to the head, Jean cannot form new memories.
 - Elle failed a Spanish test because she studied for her Italian test after studying Spanish.
 - Lee cannot remember an important date on the history exam.
 - Gene cannot remember his new locker combination but remembers last year's.
 - Jodi remembers the first few items on her school supply list, but can't remember the rest of them.

» Answers and Explanations

- B**—The three stages of the Atkinson–Shiffrin process of memory are sensory memory, short-term (working memory), and long-term memory.
- D**—Episodic memories, like having a clown at your fifth birthday, are memories of events which happened to you personally—rather than factual semantic memories like dates, math problems, and French vocabulary—or procedural memories like how to tie a shoe.

3. **E**—Peas, corn, and onions all are words at the beginning of the list. The primacy effect refers to better recall for words at the beginning of a list, which have been transferred to long-term memory as a result of rehearsal.
4. **D**—Flour, milk, and eggs are the last items on the list. They are likely to be in our short-term memory for retrieval for 20 seconds unless rehearsed. Words at the beginning of the list, as in the question above, are more likely encoded into our long-term memories because we have rehearsed them more often than items at the end of the list.
5. **C**—Elaborative rehearsal enables deeper processing of information into long-term memory. It makes both encoding into and retrieval from long-term memory easier.
6. **C**—Although explicit memories are not necessarily stored in the hippocampus, we know that hippocampal damage does affect processing of explicit memories for semantic and episodic events into long-term memory.
7. **D**—Dai remembered where he left his car when he was in the same physiological state as when he was last in his car.
8. **B**—There are about 100 phonemes worldwide; the English language uses about 45 of them.
9. **A**—When asked to mention types of birds, an average or typical one likely to come to mind (a prototype) would be a robin because it has all the characteristics of the category.
10. **B**—Divergent thinkers think out of the box, generate more possible solutions, and are more creative thinkers than convergent thinkers.
11. **C**—Nativist Noam Chomsky has suggested that babies come equipped with a *language acquisition device* in their brains that is preprogrammed to analyze language as they hear it and determine its rules.
12. **A**—Using a dime to substitute for a screwdriver shows a lack of functional fixedness because you are able to come up with an unconventional way to use a standard item when needed.
13. **E**—Arnold made a faulty decision based on his prototypes that elementary school teachers are women and engineers are men.
14. **E**—The one-year-old communicates that she wants a drink using a holophrase, one word.
15. **B**—In retroactive interference we can't recall previously learned information, because newer information (Italian) disrupts the older information (Spanish) and makes it more difficult to retrieve.

> Rapid Review

Memory—human capacity to register, retain, and remember information.

Three models of memory:

1. **Information Processing Model** of memory—encoding, storage, and retrieval.
 - **Encoding**—the process of putting information into the memory system.
 - **Storage**—the retention of encoded information over time.
 - **Retrieval**—the process of getting information out of memory storage.

We have difficulty attending to two complex tasks—divided attention.
2. **Levels of Processing Theory** or **Semantic Network Theory**—the ability to form memories depends upon the depth of the processing.
 - **Shallow processing**—structural encoding emphasizes structure of incoming sensory information.

ago. This *Flynn effect* cannot be attributed to a change in the human gene pool because that would take hundreds of years. Theorists attribute the Flynn effect to a number of environmental factors, including better nutrition, better health care, advances in technology, smaller families, better parenting, and increased access to educational opportunities.

Heritability is the proportion of variation among individuals in a population that results from genetic causes. Heritability for intelligence estimates range from 50 to 75%. Heritability deals with differences on the population level, not on the individual level. According to the *reaction range model*, genetic makeup determines the upper limit for an individual's IQ, which can be attained in an ideal environment, and the lower limit, which would result in an impoverished environment.

Human Diversity

Racial differences in IQ scores show African Americans, Native Americans, and Hispanic Americans typically scoring 10 to 15 points below the mean for white children. When comparing groups of people on any construct, such as intelligence, it is important to keep in mind the concept of **within-group differences** and **between-group differences**. The range of scores *within* a particular group, such as Hispanic Americans, is much greater than the difference between the mean scores of two different groups, such as Hispanic Americans and Asian Americans. According to Leon Kamin, even if heritability is high, differences in average IQ between groups could be caused entirely by environmental factors. Neither of these statistics tells us how any one individual will score. The difference between the mean scores could result from socioeconomic differences. Claude Steele hypothesizes that at least part of the difference in IQ scores can be attributed to **stereotype threat**—anxiety that influences members of a group concerned that their performance on a test will confirm a negative stereotype.

> Review Questions

Testing + Ind. Diff.

Directions: For each question, choose the letter of the choice that best completes the statement or answers the question.

1. Aptitude tests are designed to measure
 - (A) previously learned facts
 - (B) future performance
 - (C) previously learned skills
 - (D) current competence
 - (E) your IQ score
2. A standardization sample for developing a test
 - (A) should be representative of all the types of people for whom the test is designed
 - (B) is an early version of the test to determine questions that differentiate individuals
 - (C) is a set of norms that will determine what score should be considered passing
 - (D) should include people from all different age groups, ethnic groups, and genders
 - (E) must include a standard set of directions for administering the test that all students will receive

3. If Mrs. Delvecchio compared the scores of students on the odd-numbered questions on the test with their scores for the even-numbered questions, she would be attempting to determine if the test had
- (A) content validity
 - (B) split-half reliability
 - (C) predictive validity
 - (D) test-retest reliability
 - (E) concurrent validity
4. Advantages of group tests as compared to individualized tests include
- (A) that they are cheaper and give more accurate results
 - (B) that they can be given to a large group of people at one time and are cheaper to grade
 - (C) the ability to establish rapport between the examiner and subjects to put them at ease
 - (D) that they have proven to be more reliable and valid in measuring abilities
 - (E) more subjective scoring of results by examiners who evaluate them
5. Which of the following best describes Charles Spearman's *g* of intelligence?
- (A) There are many factors that determine intelligence, but genetics is the most important one.
 - (B) The internal validity of an intelligence test is *g*.
 - (C) A general intelligence that underlies success on a wide variety of tasks is *g*.
 - (D) Giftedness is determined by both innate ability to perform and experiences one has in life.
 - (E) The *g* is measured by the speed with which one can process information.
6. According to Sternberg, which of the following types of intelligence in his triarchic theory are measured by standard IQ tests?
- I. analytic
 - II. practical
 - III. creative
- (A) I only
 - (B) II only
 - (C) III only
 - (D) I and II only
 - (E) I, II, and III
7. Freddie is a 10-year-old boy with a mental age of 12. According to the scoring of the Stanford-Binet test, Freddie's intelligence quotient score is
- (A) 12
 - (B) 83
 - (C) 95
 - (D) 120
 - (E) 140
8. A comparison of the scores of African-American test takers to the scores of European-American test takers on current popular intelligence tests such as the Wechsler Adult Intelligence Scale and the Stanford-Binet indicates that
- (A) black students outperform white students on creative and practical intelligence scores
 - (B) the difference between the means of scores between groups is larger than the range of scores within groups
 - (C) adopted black children score higher than their biological siblings
 - (D) there is no difference between the scores of whites and blacks
 - (E) the mean of black students is lower than the mean of white students
9. During development of standardized tests, questions that are answered correctly by almost all students and those that are missed by almost all students are eliminated. Why?
- (A) Only questions that are moderately difficult should be included on a test.
 - (B) These questions fail to show individual differences in abilities.
 - (C) These questions are poorly written.
 - (D) The questions may be valid, but they are not reliable.
 - (E) This eliminates bias in administering the test.
10. Barika, who is 75, takes longer to solve problems that require abstract reasoning than she did when she was 35. This tendency indicates
- (A) a decrease in her overall intelligence level
 - (B) an increase in her crystallized ability
 - (C) a decline in her fluid intelligence
 - (D) failing eyesight, which can be compensated for by large print being used on the test
 - (E) a problem in her concrete operational thought

> Answers and Explanations

1. **B**—Aptitude tests measure our potential for learning whereas achievement tests measure what we have already learned.
2. **A**—For a standardization sample to be useful, it must fairly represent all the types of people who will be taking it at a future date.
3. **B**—A split-half reliability measure correlates the scores on one half of the questions on a test with the other half. If they are consistent, then the test results are reliable. The odd-even question format is only one way to test for split-half reliability.
4. **B**—Group tests are more economical and easier to administer to a larger group of people in less time with less need for a professional examiner and complicated grading criteria. Most results are computer generated.
5. **C**—Spearman's *g* is a general ability that fuels many *s*, or special talents. His two-factor model does tend to support the genetic basis of intelligence, but *g* does not mean genetic.
6. **A**—Sternberg argued that traditional IQ tests are limited to measuring the analytical abilities of students—mostly verbal, mathematical, and logical reasoning. He believes that both practical and creative intelligence are overlooked by these tests, but should be measured because of their importance in both adapting to the existing environment and shaping new ones.
7. **D**—The formula for determining the Stanford-Binet IQ score is $MA/CA \times 100$. This formula shows that Freddie's intelligence quotient would be $12/10 \times 100$ or 120.
8. **E**—In comparison to white students, black students average IQ scores 10 to 15 points lower.
9. **B**—Questions at either extreme are thrown out because these fail to show individual differences, which is the whole point of standardized tests.
10. **C**—Many older individuals like Barika show this decline in fluid intelligence, possibly because they get fewer opportunities to use their abstract reasoning. The speed at which they can answer these types of questions decreases as well. Their overall crystallized intelligence, or information that they have gathered over a lifetime, is often unimpaired.

> Rapid Review

Tests are used to make decisions.

Psychometricians (measurement psychologists)—focus on methods for acquiring and analyzing psychological data; measure mental traits, abilities, and processes.

Standardization and norms:

Constructs—hypothetical abstractions related to behavior and defined by groups of objects or events.

Standardization—two-part test development procedure: first establishes test norms from the test results of the large representative sample and then ensures that the test is both administered and scored uniformly for all test takers.

Norms—standards used to compare scores of test takers.

Reliability and validity:

Reliability—consistency of results over time (repeatability); methods of measurement include test-retest, split-half, alternate form.

> Review Questions *Social Psychology*

Directions: For each item, choose the letter of the choice that best completes the statement or answers the question.

1. Mr. Moffatt overheard another teacher describe one of his students as lazy and unmotivated. Though Mr. Moffatt had not previously noted this tendency, he began to see exactly what the other teacher had noted. What might account for this phenomenon?
 - (A) norms
 - (B) deindividuation
 - (C) social loafing
 - (D) self-fulfilling prophecy
 - (E) representativeness heuristic
2. Some difficult cuts needed to be made in the school board budget, and everyone on the board knew that there had to be consensus and cooperation. Even though many members disagreed with certain proposals, each one met with unanimous support or defeat. To preserve cooperation, no one offered conflicting viewpoints. Which of the following concepts is best described by this example?
 - (A) group polarization
 - (B) fundamental attribution error
 - (C) groupthink
 - (D) role schema
 - (E) reciprocity
3. A young woman was gunned down at a gas station. A busload of onlookers saw the entire event, and no one did anything. The bus driver even stepped over the body to pay for his gas. What social psychological phenomenon best accounts for this behavior?
 - (A) groupthink
 - (B) altruism
 - (C) social impairment
 - (D) superordinate goals
 - (E) diffusion of responsibility
4. You read in the newspaper that survivors in a plane accident in the Andes were discovered to have eaten other survivors during their 32-day ordeal. You will have committed the fundamental attribution error if you
 - (A) attribute the behavior to dispositional (personal) factors
 - (B) attribute the behavior to situational factors
 - (C) think you would have done the same thing if you had been there
 - (D) consider the behavior as a signal for the moral degradation of our society
 - (E) decide never to fly in a plane again
5. Ethnocentrism is the belief that
 - (A) ethnic foods are all good
 - (B) human diversity is a positive force
 - (C) one's own culture is superior to others
 - (D) other people are all pretty much alike in their opinions
 - (E) cultural pluralism is a destructive goal that fosters conflict
6. The effect of one confederate selecting a different line from the others in the Asch conformity test was
 - (A) continuing conformity by the participant to avoid looking bad to the others
 - (B) the participant asking to vote privately on a separate piece of paper
 - (C) a boost to the self-efficacy of the participant
 - (D) to release the participant from the conformity effect
 - (E) to cause the experimenter to release that confederate in the next trial period, thus ensuring continued conformity by the participant
7. Which of the following factors probably plays the *least* important role in explaining why children often share the same political and economic values as their parents?
 - (A) exposure to mass media
 - (B) operant conditioning
 - (C) they have never questioned these beliefs and do not really understand them
 - (D) modeling
 - (E) mere exposure effect

8. Of the following, which would be a good example of a self-serving bias?
- (A) Carlos, who feels that everyone should strive to help themselves as well as others
 - (B) Antoine, who says that he has bombed a test even though he always gets an A
 - (C) Mai, who works harder for teachers who compliment her on her efforts
 - (D) Lina, who overestimates the degree to which people agree with her opinions
 - (E) Betty, who believes that she works harder than others and is underappreciated
9. In a jigsaw classroom,
- (A) students are dependent upon each other to learn all parts of a lesson
 - (B) learning is enhanced by simulations and lectures run by teachers
 - (C) competition encourages kids to achieve their full potential
 - (D) outcome research has shown limited success beyond the elementary school level
 - (E) individualism is encouraged to foster self-esteem
10. Although Graham has not yet met his future college roommate, he learned that the roommate is a football player. He is anxious and unhappy about sharing his room with a football player because he expects that his roommate will be a "party animal" who makes studying in his room difficult. Graham's attitude can be classified as
- (A) stereotype threat
 - (B) prejudice
 - (C) discrimination
 - (D) scapegoating
 - (E) fully justified
11. When asked what they would do if they could be totally invisible and there would be no recrimination, most people answered that they would commit an antisocial act. Which of the following social phenomena might best be able to explain this response?
- (A) reciprocity
 - (B) group polarization
 - (C) social loafing
 - (D) deindividuation
 - (E) self-fulfilling prophecy
12. Which of the following social psychological experiments has been considered the most unethical and led to sweeping reforms in the APA ethical guidelines?
- (A) Bandura's Bobo study of TV aggression
 - (B) Asch's line test for conformity
 - (C) Milgram's obedience to authority study
 - (D) Sherif's boys' camp study
 - (E) Jane Eliot's brown-eyed/blue-eyed study of prejudice
13. Donald believes himself to be a patriotic citizen, but he also does not believe in attacking countries that are technologically no match for the United States. If the United States was to go to war and Donald were to be drafted, dissonance theory predicts that
- (A) he would have no conflict in going off to war
 - (B) he might have to change one of his attitudes to feel less tension
 - (C) justification of the military position would have to be internalized by him
 - (D) morally, he would have to become a conscientious objector
 - (E) morally, he must fight and defend his country
14. A charity sends you some greeting cards, and you feel that you should send them a small contribution. This feeling comes from the persuasion technique called
- (A) foot-in-the-door
 - (B) reciprocity
 - (C) door-in-the-face technique
 - (D) low-ball technique
 - (E) central route
15. Which of the following is *not* a key determinant of whether or not two people will become friends?
- (A) similarity of interests and social backgrounds
 - (B) proximity
 - (C) physical attractiveness
 - (D) utilitarian value
 - (E) opposing views on key social issues

Answers and Explanations

1. **D**—Self-fulfilling prophecy studies show there is a tendency to elicit behaviors from others that conform to our individual expectations. After hearing the other teacher's attribution of the student behavior, Mr. Moffatt's behavior toward the student probably changed even unintentionally, which affected the student's behavior. (Note: this is the *result* of the incident—not its cause.)
2. **C**—Groupthink is a tendency to self-censor in group decisions to preserve the harmony of the group.
3. **E**—Diffusion of responsibility is the bystander rule that, as the size of the group increases, the assumption of responsibility of any group member decreases.
4. **A**—When judging the behavior of others, people often make the fundamental attribution error of overemphasizing personal or dispositional factors and underestimating situational factors.
5. **C**—Ethnocentrism is the belief that one's own group—ethnic, political, religious, etc.—is superior to others.
6. **D**—Although one-third of the participants conformed some of the time in the Asch conformity trials, when only one of the confederates selected a different line from the others, the participant was released from the conformity effect.
7. **A**—Children tend to adopt the attitudes of their parents through all of the other methods, but exposure to mass media offers them a diverse set of opinions, which may cause them to carefully reconsider some of their parents' basic beliefs.
8. **E**—A self-serving bias causes us to overestimate the contribution we make to successful group projects, thereby preserving our feelings of self-worth and efficacy.
9. **A**—The jigsaw classroom was an effort to increase cooperation between diverse groups and build esteem and achievement of minority students. The original expert groups learn one part of a lesson. The students then regroup into jigsaw groups and are dependent upon others to learn the complete lesson. Diverse groups working cooperatively together come into contact with each other and lose some of their prejudiced beliefs.
10. **B**—Prejudice is an unjustified attitude, while discrimination is the unjustified behavior that might result from holding such an attitude.
11. **D**—In studies on deindividuation, anonymity of group members often excuses them for acting in antisocial ways. The wording of this question often leads people to consider personal gain through criminal acts since they “won't face punishment.”
12. **C**—Milgram's “shocking” experiment put individuals under extreme psychological distress and, even though 98% stated they were glad to have participated in the experiment, a similar experiment would not be allowed today because of the ethical problems.
13. **B**—Cognitive dissonance research states that in order to reduce tension created by opposing actions and values or beliefs, a person will modify either the actions or the beliefs to create cognitive consistency.
14. **B**—Reciprocity is the compliance technique often used by groups to get others to donate money out of obligation since the group has given them a small gift first.
15. **E**—Choices A–D are all instrumental factors in determining who will become friends, but opposing views on social issues may cause initial conflict and a lesser tendency for people to be motivated to form a friendship.