

**Objective 1:** Define *hindsight bias*, and explain how it can make research findings seem like mere common sense.

1. The tendency to perceive an outcome that has occurred as being obvious and predictable is called the \_\_\_\_\_ . This phenomenon is \_\_\_\_\_ (rare/common) in \_\_\_\_\_ (children/adults/both children and adults).
2. Because it is \_\_\_\_\_ (after the fact/usually wrong), this tendency makes research findings seem like mere common sense.

**Objective 2:** Describe how overconfidence contaminates our everyday judgments.

3. Our everyday thinking is also limited by \_\_\_\_\_ in what we think we know, which occurs because of our \_\_\_\_\_ to seek information that confirms our judgments.
4. Most people are \_\_\_\_\_ (better/worse/equally wrong) in predicting their social behavior.

**Objective 3:** Explain how the scientific attitude encourages critical thinking.

5. The scientific approach is characterized by the attitudes of \_\_\_\_\_ , \_\_\_\_\_ , and \_\_\_\_\_ .
6. Scientific inquiry thus encourages reasoning that examines assumptions, discerns hidden values, evaluates evidence, and assesses conclusions, which is called \_\_\_\_\_ .

**Objective 4:** Describe how psychological theories guide scientific research.

7. Psychologists use the \_\_\_\_\_ \_\_\_\_\_ to guide their study of behavior and mental processes. They make \_\_\_\_\_ and form \_\_\_\_\_ , which are \_\_\_\_\_ based on new \_\_\_\_\_ .

8. An explanation using an integrated set of principles that organizes and predicts behaviors or events is a \_\_\_\_\_ . Testable predictions that allow a scientist to evaluate a theory are called \_\_\_\_\_ . These predictions give direction to \_\_\_\_\_ .
9. In order to prevent theoretical biases from influencing scientific observations, research must be reported precisely—using clear \_\_\_\_\_ of all concepts—so that others can \_\_\_\_\_ the findings.
10. The test of a useful theory is the extent to which it effectively \_\_\_\_\_ observations and implies clear \_\_\_\_\_ .
11. Psychologists conduct research using \_\_\_\_\_ methods, \_\_\_\_\_ , and \_\_\_\_\_ methods.

**Description** (pp. 26–30)

If you do not know the meaning of any of the following words, phrases, or expressions in the context in which they appear in the text, refer to page 40 for an explanation: *Numbers are numbing; Anecdotes are often more startling; a thimbleful; snapshot of the opinions.*

**Objective 5:** Identify an advantage and a disadvantage of using case studies to study behavior.

1. The research strategy in which one or more individuals is studied in depth in order to reveal universal principles of behavior is the \_\_\_\_\_ .
2. Although case studies can suggest \_\_\_\_\_ for further study, a potential problem with this method is that any given individual may be \_\_\_\_\_ .

**Objective 6:** Identify the advantages and disadvantages of using surveys to study behavior and mental processes, and explain the importance of wording effects and random sampling.

3. The method in which a group of people is questioned about their attitudes or behavior is the \_\_\_\_\_ .

4. An important factor in the validity of survey research is the \_\_\_\_\_ of questions.
5. The tendency to overestimate others' agreement with us is the \_\_\_\_\_.
6. Surveys try to obtain a \_\_\_\_\_ sample, one that will be representative of the \_\_\_\_\_ being studied. In such a sample, every person \_\_\_\_\_ (does/does not) have a chance of being included.
7. Large, representative samples \_\_\_\_\_ (are/are not) better than small ones.
8. We are more likely to overgeneralize from select samples that are especially \_\_\_\_\_.

**Objective 7:** Identify an advantage and a disadvantage of using naturalistic observation to study behavior.

9. The research method in which people or animals are directly observed in their natural environments is called \_\_\_\_\_.
10. Case studies, surveys, and naturalistic observation do not explain behavior; they simply \_\_\_\_\_ it.
11. Using naturalistic observation, researchers have found that people are more likely to laugh in \_\_\_\_\_ situations than in \_\_\_\_\_ situations. Also, using observations of walking speed and the accuracy of public clocks, researchers have concluded that the pace of life \_\_\_\_\_ (varies/does not vary) from one culture to another.

### Correlation (pp. 30–36)

If you do not know the meaning of any of the following words, phrases, or expressions in the context in which they appear in the text, refer to page 40 for an explanation: *naked eye*; *flipped a coin*; "cold hands" . . . "hot hands."

**Objective 8:** Describe positive and negative correlations, and explain how correlational measures can aid the process of prediction.

1. When changes in one factor are accompanied by changes in another, the two factors are said to be \_\_\_\_\_, and one is thus able to \_\_\_\_\_ the other. The mathematical expression of this relationship is called a \_\_\_\_\_.
2. Graphs called \_\_\_\_\_ are often used to depict the relationship between two sets of scores.
3. If two factors increase or decrease together, they are \_\_\_\_\_. If, however, one decreases as the other increases, they are \_\_\_\_\_. Another way to state the latter is that the two variables relate \_\_\_\_\_.

If your level of test anxiety goes down as your time spent studying for the exam goes up, would you say these events are positively or negatively correlated? Explain your reasoning.

**Objective 9:** Explain why correlational research fails to provide evidence of cause-effect relationships.

4. A negative correlation between two variables does not indicate the \_\_\_\_\_ or \_\_\_\_\_ of the relationship. Nor does correlation prove \_\_\_\_\_; rather, it merely indicates the possibility of a \_\_\_\_\_ relationship.
5. A correlation between two events or behaviors means only that one event can be \_\_\_\_\_ from the other.

6. Because two events may both be caused by some other \_\_\_\_\_, a correlation does not mean that one \_\_\_\_\_ the other. For this reason, correlation thus does not enable \_\_\_\_\_.

**Objective 10:** Describe how people form illusory correlations.

7. A perceived correlation that does not really exist is an \_\_\_\_\_.

8. People are more likely to notice and recall events that \_\_\_\_\_ their beliefs. This error in thinking helps explain many \_\_\_\_\_ beliefs.

**Objective 11:** Explain the human tendency to perceive order in random sequences.

9. Another common tendency is to perceive order in \_\_\_\_\_.

10. Patterns and streaks in random sequences occur \_\_\_\_\_ (more/less) often than people expect, and they \_\_\_\_\_ (do/do not) appear random.

**Experimentation** (pp. 36–39)

If you do not know the meaning of the following word in the context in which it appears in the text, refer to page 40 for an explanation: *recap*.

**Objective 12:** Explain how experiments help researchers isolate cause and effect.

1. To isolate \_\_\_\_\_ and \_\_\_\_\_, researchers \_\_\_\_\_ control for other \_\_\_\_\_.

2. Research studies have found that breast-fed infants \_\_\_\_\_ (do/do not) grow up with higher intelligence scores than those of

infants who are bottle-fed with cow’s milk. To study cause-effect relationships, psychologists conduct \_\_\_\_\_. Using this method, a researcher \_\_\_\_\_ the factor of interest, while \_\_\_\_\_ other factors.

3. If a \_\_\_\_\_ changes when an \_\_\_\_\_ factor is varied, the researcher knows the factor is having an \_\_\_\_\_.

**Objective 13:** Explain why the double-blind procedure and random assignment build confidence in research findings.

4. Researchers sometimes give certain participants a pseudotreatment, called a \_\_\_\_\_, and compare their behavior with that of participants who receive the actual treatment. When merely thinking that one is receiving a treatment produces results, a \_\_\_\_\_ is said to occur.

5. When neither the subjects nor the person collecting the data knows which condition a subject is in, the researcher is making use of the \_\_\_\_\_.

6. An experiment must involve at least two conditions: the \_\_\_\_\_ condition, in which the experimental treatment is present, and the \_\_\_\_\_ condition, in which it is absent.

7. Experimenters rely on the \_\_\_\_\_ of individuals to the experimental conditions.

**Objective 14:** Explain the difference between an independent and a dependent variable.

8. The factor that is being manipulated in an experiment is called the \_\_\_\_\_ variable.

The measurable factor that may change as a result of these manipulations is called the \_\_\_\_\_ variable.

9. The aim of an experiment is to \_\_\_\_\_ a(n) \_\_\_\_\_ variable, \_\_\_\_\_ the \_\_\_\_\_ variable, and \_\_\_\_\_ all other \_\_\_\_\_.

Explain at least one advantage of the experiment as a research method.

**Statistical Reasoning** (pp. 39–44)

If you do not know the meaning of any of the following words, phrases, or expressions in the context in which they appear in the text, refer to pages 40–41 for an explanation: *Off-the-top-of-the-head estimates; national income cake; gauges; data are "noisy."*

**Objective 15:** Explain the importance of statistical principles, and give an example of their use in everyday life.

1. Researchers use \_\_\_\_\_ to help them see and interpret their observations.

**Objective 16:** Explain how bar graphs can misrepresent data.

2. Once researchers have gathered their \_\_\_\_\_, they must \_\_\_\_\_ them. One simple way of visually representing data is to use a \_\_\_\_\_. It is important to read the \_\_\_\_\_ and note the \_\_\_\_\_ to avoid being misled by misrepresented data.

**Objective 17:** Describe the three measures of central tendency, and tell which is most affected by extreme scores.

3. The three measures of central tendency are the \_\_\_\_\_, the \_\_\_\_\_, and the \_\_\_\_\_.
4. The most frequently occurring score in a distribution is called the \_\_\_\_\_.
5. The mean is computed as the \_\_\_\_\_ of all the scores divided by the \_\_\_\_\_ of scores.
6. The median is the score at the \_\_\_\_\_ percentile.
7. When a distribution is lopsided, or \_\_\_\_\_, the \_\_\_\_\_ (mean/median/mode) can be biased by a few extreme scores.

**Objective 18:** Describe two measures of variation.

8. Averages derived from scores with \_\_\_\_\_ (high/low) variability are more reliable than those with \_\_\_\_\_ (high/low) variability.
9. The measures of variation include the \_\_\_\_\_ and the \_\_\_\_\_.
10. The range is computed as the \_\_\_\_\_.
11. The range provides a(n) \_\_\_\_\_ (crude/accurate) estimate of variation because it \_\_\_\_\_ (is/is not) influenced by extreme scores.
12. The standard deviation is a \_\_\_\_\_ (more accurate/less accurate) measure of variation than the range. Unlike the range, the standard deviation \_\_\_\_\_ (takes/does not take) into consideration information from each score in the distribution.

**Objective 19:** Identify three principles of making generalizations from samples.

3. It is safer to generalize from a \_\_\_\_\_ sample than from a \_\_\_\_\_ sample.
4. Averages are more reliable when they are based on scores with \_\_\_\_\_ (high/low) variability.
5. Small samples provide a \_\_\_\_\_ (more/less) reliable basis for generalizing than large samples.

**Objective 20:** Explain how psychologists decide whether differences are meaningful.

6. Tests of statistical \_\_\_\_\_ are used to estimate whether observed differences are real—that is, to make sure that they are not simply the result of \_\_\_\_\_ variation. The differences are probably real if the sample averages are \_\_\_\_\_ and the difference between them is \_\_\_\_\_ (relatively small/relatively large).
7. Statistical significance does not necessarily indicate the importance or \_\_\_\_\_ significance of a difference or result.

**Frequently Asked Questions About Psychology** (pp. 44–50)

If you do not know the meaning of any of the following words, phrases, or expressions in the context in which they appear in the text, refer to page 41 for an explanation: *plunge in*; *To understand how a combustion engine works . . .*; *screen*; *color "the facts."*

**Objective 21:** Explain the value of simplified laboratory conditions in discovering general principles of behavior.

1. In laboratory experiments, psychologists' concern is not with specific behaviors but with the underlying theoretical \_\_\_\_\_. As an example, researchers have found that people who

flexibly cope with \_\_\_\_\_ stresses also cope flexibly with \_\_\_\_\_.

2. Psychologists conduct experiments on simplified behaviors in a laboratory environment in order to gain \_\_\_\_\_ over the many variables present in the "real world." In doing so, they are able to test \_\_\_\_\_ of behavior that also operate in the real world.

**Objective 22:** Discuss whether psychological research can be generalized across cultures and genders.

3. Culture refers to shared \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ that one generation passes on to the next.
4. Although specific attitudes and behaviors vary across cultures, the underlying \_\_\_\_\_ are the same. For instance, throughout the world people diagnosed with \_\_\_\_\_ exhibit the same \_\_\_\_\_ malfunction. Likewise, similarities between the \_\_\_\_\_ far outweigh differences.

**Objective 23:** Explain why psychologists study animals, and discuss the ethics of experimentation with both animals and humans.

5. Many psychologists study animals because they are fascinating. More important, they study animals because of the \_\_\_\_\_ (similarities/differences) between humans and other animals. These studies have led to treatments for human \_\_\_\_\_ and to a better understanding of human functioning.
6. Some people question whether experiments with animals are \_\_\_\_\_. They wonder whether it is right to place the \_\_\_\_\_ of humans over those of animals.
7. Opposition to animal experimentation also raises the question of what \_\_\_\_\_ should protect the well-being of animals.

Describe the goals of the ethical guidelines for psychological research.

**Objective 24:** Describe how personal values can influence psychologists' research and its application, and discuss psychology's potential to manipulate people.

8. Psychologists' values \_\_\_\_\_ (do/do not) influence their theories, observations, and professional advice.
9. Although psychology \_\_\_\_\_ (can/cannot) be used to manipulate people, its purpose is to \_\_\_\_\_.
10. (Thinking Critically) The viewpoint called \_\_\_\_\_ questions scientific objectivity, arguing that most scientific concepts are merely \_\_\_\_\_ constructs. Psychological scientists \_\_\_\_\_ (agree/disagree) on whether there is, in fact, a "real world" of psychological principles that science can reveal.
11. (Thinking Critically) People who serve on juries in capital punishment cases \_\_\_\_\_ (do/do not) represent the greater population. They are \_\_\_\_\_ (more/less) likely to be minorities and women.
12. (Thinking Critically) States with a death penalty \_\_\_\_\_ (have/do not have) lower homicide rates.