Chapter One

The Evolution of Psychology

REVIEW OF KEY IDEAS

FROM SPECULATION TO SCIENCE: HOW PSYCHOLOGY DEVELOPED

1. Summarize Wundt’s accomplishments and contributions to psychology.
   1-1. If you ask most college graduates to name the founder of psychology they might mention the name of a famous psychologist (for example, maybe Sigmund Freud), but they almost certainly would not say Wilhelm Wundt. Yet among psychologists Wundt is generally acknowledged to be the _______ of our field.
   1-2. Wundt established the first experimental psychology _______ in Leipzig, Germany, in 1879. He also established the first _______ devoted to publishing psychological research.
   1-3. The subject matter of Wundt’s psychology was (consciousness/behavior).
   1-4. Wundt’s major contributions to the evolution of psychology may be summarized as follows: He is the _______ of psychology as an independent academic field, and he insisted that psychology can and must use the _______ method.

   Answers: 1-1. founder 1-2. laboratory, journal 1-3. consciousness 1-4. founder, scientific (experimental). (Personal note from RS: I visited Leipzig in the former East Germany during summer 1996 and looked for the famous founding laboratory. It wasn’t there! I found Wundt Street, but no lab. Had I read World War II history more carefully I would have known that an English-U.S. bombing raid destroyed the laboratory in 1943.)

2. Summarize Hall’s accomplishments and contributions to psychology.
   2-1. Wundt had many important students, among them the G. Stanley Hall, an American. In 1883, just four years after Wundt created his laboratory in Leipzig, Hall established the first American psychological _______ at Johns Hopkins. Hall also founded America’s first _______ devoted to publishing material in the field of psychology.
2-2. In 1892, with 26 of his colleagues, Hall began the American Psychological Association, known by the initials ______. Hall also became the first ______________ of the Association. The APA now includes more than 80,000 members.

**Answers:** 2-1. laboratory, journal 2-2. APA, president.

3. **Describe structuralism and its impact on the subsequent development of psychology.**

   **3-1.** Another of Wundt's students, Edward Titchener, developed the school of psychology known as ______________. The major tenet of this viewpoint was that psychology should study the structure of ______________ by breaking it down into its basic components or ____________________.

   **3-2.** These basic elements of consciousness were thought to be the sensations (or images or feelings) that people reported when they observed some object. Subjects were first trained to observe (or listen to) something and then, after careful introspection, report on their conscious experience. Thus, the subject matter of structuralism was ______________, and its method involved training observers in the technique of ______________.

   **Answers:** 3-1. structuralism, consciousness, elements 3-2. consciousness, introspection.

4. **Describe functionalism and its impact on the subsequent development of psychology.**

   **4-1.** Rather than breaking down consciousness into basic elements, the ______________ school emphasized determining the ______________ or purpose of consciousness.

   **4-2.** The origins of functionalism are associated with William James. Influenced by the Darwin's concept of natural selection, James concluded that psychology should study the basic (elements/purpose) of consciousness.

   **4-3.** Which "school" is characterized by each of the following descriptions? Place an "S" for structuralism or "F" for functionalism in the appropriate blanks.

   _ _ Concerned with the purpose (or function) of consciousness.

   _ _ Trained observers to introspect about consciousness.

   _ _ Assumed that consciousness could be broken down into basic elements (in the same way that physical matter is comprised of atoms).

   _ _ Interested in the flow of consciousness.

   _ _ Focused on the adaptive (evolutionary) value of consciousness.

   _ _ Emphasized sensation and perception in vision, hearing, and touch.

   **4-4.** While neither structuralism nor functionalism survived as viable theories of psychology, functionalism had a more lasting impact. The emphasis of functionalism on the practical (or the adaptive or purposeful) led to the development of these two areas of modern psychology: ______________ and ______________ psychology.
5. Summarize Watson's view on the appropriate subject matter of psychology, nature versus nurture, and animal research.

5-1. A literal translation of the root words of psychology (psyche and logos) suggests that psychology is the study of the _____________. For both Wundt and James, this was the case: they studied human _____________. For Watson, however, the subject matter of psychology was _____________.

5-2. Watson believed that psychology could not be a science unless it, like the other sciences, concentrated on _____________. rather than unobservable events.

5-3. Which of the following are observable behaviors? Place an “O” in the blank if the event is observable and an “N” if it is not.

- O writing a letter
- O feeling angry
- O saying “Please pass the salt”
- O passing the salt
- O perceiving a round object
- O experiencing hunger
- O walking rapidly

5-4. Watson largely discounted the importance of genetic inheritance. For Watson, behavior was governed by the _____________.

5-5. Watson also made a shift away from human introspection by using _____________. as the subjects for research. Why the change in orientation? First, animal behavior is observable; human consciousness is not. Second, the environment of laboratory animals, in contrast to that of humans, is subject to much more _____________.

5-6. Let's briefly review structuralism and behaviorism:

(a) As defined by the structuralists, what was the subject matter of psychology?

(b) For behaviorists, what was the subject matter of psychology?

(c) While structuralists and behaviorists differed in their views of the subject matter of psychology, their approach to the new field was similar in one major respect. In what way were the two systems similar?
Answers: 5-1. soul (or mind), consciousness, behavior 5-2. observable 5-3. O, N (you can’t see or hear your own or another person’s feelings of anger; you may see the results of anger), O, O, N (you can’t see or hear perception), N (you can’t see or hear hunger), O 5-4. environment 5-5. animals, control (manipulation) 5-6. (a) conscious experience (consciousness), (b) animal or human behavior. (c) They studied “parts” rather than “ wholes.” Both systems believed that the task of psychology was to break down psychological phenomena into their smallest elements. (For the structuralists the smaller elements were the sensations or images that made up consciousness; for the behaviorists the elements were the stimulus-response bonds thought to make up behavior.)


6-1. For Wundt, the subject matter of psychology was human consciousness. For Freud, a major subject of study was what he termed the ___________. With this concept, Freud asserted that human beings are (aware/unaware) of most of the factors that influence their thoughts and behavior.

6-2. There is a word beginning with s that means the same thing as feces. This word, however, may be more likely to cause laughter, embarrassment, or anger than the word feces. Why do two words that mean the same thing produce such differing reactions? Freud would assert that our more emotional response to one of the words would be caused by the _____________.

6-3. Although generally not accessible to us, the unconscious is revealed in several ways, according to Freud. Freud thought, for example, that the unconscious is revealed in mistakes, such as “_________ of the tongue,” or the symbolism in nighttime ____________.

6-4. Freud’s ideas were (and still are) considered quite controversial. The general public tended to find Freud’s ideas unacceptable because of his emphasis on ___________. And scientific psychologists, with their increasing emphasis on observable behavior, rejected Freud’s notion that we are controlled by ___________ forces. Nonetheless, Freud’s theory gradually gained prominence and survives today as an influential theoretical perspective.

Answers: 6-1. unconscious, unaware 6-2. unconscious 6-3. slips, dreams 6-4. sex (sexuality, sexual instincts), unconscious.

7. Summarize Skinner’s work, views, and influence.

7-1. While he did not deny their existence, Skinner said that (mental/environmental) events are not observable and cannot be studied scientifically.

7-2. The fundamental principle of behavior, according to Skinner, is that organisms will tend to ___________ behaviors that lead to positive outcome (and tend not to repeat responses that lead to neutral or negative outcomes).

7-3. Skinner asserted that because behavior is under the lawful control of the environment, our feeling of ___________ is an illusion.

7-4. According to Skinner, to adequately account for and predict behavior psychologists must understand

a. the relationship between thinking and behavior
b. the physiological basis of action
c. the way environmental factors affect behavior
d. all of the above
8. Summarize Rogers's and Maslow's ideas and the contributions of humanistic psychology.

8-1. Both Rogers and Maslow, like other psychologists, emphasized the (similarities/differences) between human beings and other animals.

8-2. While Freud and Skinner stressed the way in which behavior is controlled (by unconscious forces or by the environment), Rogers and Maslow emphasized human beings' freedom to determine their own actions.

8-3. Rogers and Maslow also asserted that human beings have a drive to express their inner potential, a drive toward personal growth.

8-4. Perhaps the greatest contribution of the humanistic movement has been in producing (scientific findings/new approaches) in psychotherapy.

Answers: 8-1. humanistic, differences 8-2. freedom 8-3. growth (expression) 8-4. new approaches.

9. Explain how historical events since World War I have contributed to the emergence of psychology as a profession.

9-1. World War I ushered in the field of applied psychology, primarily the extensive use of intelligence testing of military recruits.

9-2. World War II brought an increased need for screening recruits and treating emotional casualties. With the increased demand, the Veterans Administration began funding many new training programs in the field of psychological psychology.

9-3. In contrast to its founding in the 19th century as a research or academic endeavor, psychology in the 20th century developed a prominent branch devoted to solving practical problems. These applied fields, which emerged in large part as a result of two world wars, included psychological testing and clinical psychology.

Answers: 9-1. intelligence (psychological, mental) 9-2. clinical 9-3. applied (or professional), testing, clinical.

10. Describe two recent trends in research in psychology that reflect a return to psychology's intellectual roots.

10-1. Two recent trends in research in psychology involve the reemergence of areas largely discarded or ignored by the behaviorists. What are these two areas?

10-2. Think about sucking on a lemon. When you do, the amount of saliva in your mouth will increase measurably. While it would be enough to describe your observable response as a function of my observable instruction, it is also obvious that thinking, or cognition, is involved: My instruction changed your image, which was accompanied by a change in salivation.
10-3. The study of mental imagery, problem solving, and decision making involves ____________ processes. The second more recent trend also concerns "internal" processes: Research on electrical stimulation of the brain, brain specialization, and biofeedback involves ____________ processes.

**Answers:** 10-1. cognition (consciousness or thinking) and physiological (or biological) processes 10-2. mental 10-3. cognitive, physiological (biological).

11. Explain why Western psychology traditionally had scant interest in other cultures and why this situation has begun to change.

11-1. Several factors contributed to the narrow focus of Western, and especially United States, psychology:

(a) First, studying other cultures is expensive and time consuming. It's much ____________ for researchers to study people in their own country (and especially middle-class students at their own schools).

(b) Second, psychology has traditionally been more interested in the study of ____________ than groups.

(c) Third, some psychologists may worry that study of diverse groups may foster ____________ of those groups.

(d) Fourth, there may be a tendency among Western psychologists to view their own group as superior, the group tendency referred to as ____________.

11-2. The situation has begun to change in recent years for two primary reasons: (1) increased communication and trade worldwide, the so-called ____________ economy or global interdependence; and (2) increased diversity of ethnic groups within the countries of the Western World, including the ____________ mosaic characteristic of the United States.

**Answers:** 11-1. (a) cheaper (easier), (b) individuals, (c) stereotypes, (d) ethnocentrism 11-2. global; multicultural.

12. Summarize the basic tenets of evolutionary psychology.

12-1. According to evolutionary psychologists, all aspects of human behavior—including not only aggression and mate selection but perception, language, personality, and cognition—are strongly influenced by the ____________ value that these factors have had for the human species.

12-2. While Darwin's influence is clear in other psychological theories (e.g., James, Freud, and Skinner), the new emphasis on natural selection is ____________ comprehensive and widely researched than the earlier versions.

12-3. The viewpoint has its critics. Some charge that the theory is not subject to scientific ____________ and that evolutionary conceptions are simply post hoc accounts rather than explanations. Nonetheless, ____________ psychology has gained a high degree of acceptance as the first major new perspective in psychology since the 1960s.

**Answers:** 12-1. survival (adaptive) 12-2. more 12-3. test (evaluation, disconfirmation, proof), evolutionary.
PSYCHOLOGY TODAY: VIGOROUS AND DIVERSIFIED

13. Discuss the growth of psychology and the most common work settings for contemporary psychologists.

13-1. Psychology is a thriving field that has experienced a remarkable growth since its founding in 1879. Which of the following statements about that growth are true? (Use a T or F to indicate true or false for the following statements.)

- APA membership now numbers more than 80,000.
- 10 percent of all doctoral degrees awarded in science and the humanities are in psychology.
- Psychology is the second most popular undergraduate major.
- Over 1000 journals worldwide publish articles in psychology.

Answers: 13-1. T, T, T, T

13-2. Psychology was founded in a University, and earlier in this century almost all psychologists were employed as academics. Today, however, more than two-thirds of psychologists are employed in (university/non-academic) settings that include hospitals, business and industry, schools, and government agencies.

Answers: 13-2. non-academic.

14. List and describe seven major research areas in psychology.

14-1. Read over the descriptions of the research areas in Figure 1.9. Then match the names of the areas with the sampled research topics by placing the appropriate letters in the blanks. (Note that the separation between these areas is not always perfect. For example, a personality theorist might also be a psychometrician who has a physiological focus in explaining behavior. Nonetheless, the following topics have been chosen so that one answer is correct for each.)

A. Experimental _____ attitude change, group behavior
B. Physiological _____ personality assessment, intelligence assessment, test design, new statistical procedures
C. Cognitive _____ personality assessment, personality description
D. Developmental _____ "core" topics (e.g., perception, conditioning, motivation)
E. Psychometrics _____ influence of the brain, bodily chemicals, genetics
F. Personality _____ child, adolescent, and adult development
G. Social _____ memory, decision making, thinking

14-2. In case you want to remember the list of seven research areas, here's a mnemonic device: Peter Piper Picked Some Exquisite California Dills. List the seven research areas by matching them with the first letter of each word.
15. List and describe the four professional specialties in psychology.

15-1. Review Figure 1.10. Then match the following specialties with the descriptions by placing the appropriate letter in the blanks.

A. Clinical  ___________ Treatment of less severe problems and problems involving family, marital, and career difficulties.

B. Counseling  ___________ Treatment of psychological disorders, behavioral and emotional problems

C. Educational and school  ___________ Involves work on curriculum design and achievement testing in school settings.

D. Industrial and organizational  ___________ Psychology applied to business settings; deals with personnel, job satisfaction, etc.

15-2. What is the difference between psychology and psychiatry? The major difference is a matter of degree (this is a pun, folks). Psychiatrists have ___________ degrees. Clinical psychologists generally have ___________ degrees (although some clinical psychologists have Ed.D. or Psy.D. degrees).

15-3. The major portion of psychiatrists’ training occurs in ___________ schools and in the residency programs in psychiatry that follow medical school. Clinical psychologists’ training occurs in ___________ schools.

15-4. While clinical psychologists and psychiatrists frequently use the same psychotherapeutic treatment procedures, only ___________, as physicians, are licensed to prescribe drugs and engage in other medical treatment.


PUTTING IT IN PERSPECTIVE: SEVEN KEY THEMES

16. Summarize the text’s three unifying themes relating to psychology as a field of study.

16-1. When my (R. S.’s) older daughter Samantha was about three years old, she pulled a sugar bowl off a shelf and broke it while I was not present. Later, when I surveyed the damage, I said, “I see you’ve broken something.” She said, “How do yer know, did yer see me do it?” I was amused, because while it was obvious who had broken it, her comment reflected psychology’s foundation in direct observation. **Theme 1** is that psychology is ___________. Empiricism is the point of view that knowledge should be acquired through ___________.
16-2. My daughter’s comment caused me to think about one other aspect of empiricism: she expressed doubt (albeit somewhat self-serving with regard to the sugar bowl). One can describe belief systems along a continuum from credulity, which means ready to believe, to skepticism, which means disposed toward doubt. Psychology, and the empirical approach, is more disposed toward the ________ end of the continuum.

16-3. We would ordinarily think that if one theory is correct, any other theory used to explain the same data must be wrong. While scientists do pit theories against each other, it is also the case that apparently contradictory theories may both be correct—as with the explanation of light in terms of both wave and particle theories. Thus, Theme 2 indicates that psychology is theoretically ________________.

16-4. Psychology tolerates and in fact encourages) different theoretical explanations because:

16-5. As is the case with science in general, psychology does not evolve in a vacuum. It is influenced by and influences our society. For example, the current interest in cultural diversity has prompted increased interest in cross-cultural research, which in turn affects the viewpoints in our society. As stated in Theme 3, psychology evolves in a ________________ context.

Answers: 16-1. empirical, observation 16-2. skepticism 16-3. diverse 16-4. more than one theory may be correct; or, one theory may not adequately explain all of the observations 16-5. sociohistorical.

17. Summarize the text’s four unifying themes relating to psychology’s subject matter.

17-1. When looking for an explanation of a particular behavior, someone might ask: “Well, why did he do it? What was the reason? Was it greed or ignorance?” The question implies that if one cause is present another cannot be, and it illustrates the human tendency to reason in terms of (one cause/multiple causes).

17-2. What influences the course of a ball rolled down an inclined plane? Gravity. And also friction. And the presence of other objects, and a number of other factors. That is the point of Theme 4: even more than is the case for physical events, behavior is determined by ________________.

17-3. Among the multiple causes of human behavior is the category of causes referred to as culture. Cultural factors include the customs, beliefs, and values that we transmit across generations—what we eat, how we walk, what we wear, what we say, what we think, and so on. Theme 5 indicates that our behavior is shaped by our ________________ heritage.

17-4. For example, I have observed that many American students traveling abroad initially think that their European lecturers talk down to them; the lecturers, in turn, may regard our students as spoiled and insolent. Perhaps closer to the truth is that there is a clash of customs invisible to both cultures. While we are shaped by our ________________ heritage, we are often ________________ (aware/unaware) of the precise rules and customs that affect us.
17-5. Theme 6 relates to the influence of heredity and environment. What is the consensus among psychologists about the effect of heredity and environment on behavior?

17-6. The scientific method relies on observation, but observation by itself isn't sufficient. Why isn't it?

17-7. Theme 7 indicates that our experience is subjective. What does this mean?

Answers: 17-1. one cause 17-2. multiple causes 17-3. cultural 17-4. cultural heritage, aware 17-5. Theme 6 states that heredity and environment jointly affect behavior. While the relative influence of each is still debated, theorists no longer assert that behavior is entirely a function of one or the other. 17-6. Because (Theme 7) people's experience of the world is highly subjective. 17-7. Different people experience different things; even if we observe the same event at the same time, we do not "see" the same things; we selectively focus on some events and ignore others.

APPLICATION: IMPROVING ACADEMIC PERFORMANCE

18. Discuss three important considerations in designing a program to promote adequate studying.

18-1. Three features of successful studying are listed below. Elaborate on them by providing some of the details asked for.

(a) A schedule: When should you plan your study schedule? Should you write it down?

(b) A place: What are the major characteristics of a good study place?

(c) A reward: When should you reward yourself? What kinds of rewards are suggested?

Answers: 18-1. (a) It's probably useful to set up a general schedule for a particular quarter or semester and then, at the beginning of each week, plan the specific assignments you intend to work on during each study session. Put your plans in writing. (b) Find one or two places to study with minimal distractions: little noise, few interruptions. (c) Reward yourself shortly after you finish a particular amount of studying; snacking, watching TV, or calling a friend are suggested. Suggestion: You are studying now. Is this a good time for you? If it is, why not write out your weekly schedule now. Include schedule preparation as part of your study time.
19. Describe the SQ3R method and explain what makes it effective.

19-1. Below are descriptions of an individual applying the five steps of the SQ3R method to Chapter 1 of your text. The steps are not in the correct order. Label each of the steps and place a number in the parentheses which indicates the correct order.

(  ) ____________ Vanessa looks at the title of the first subsection of the chapter. After wondering briefly what it means for psychology to have "parents," she formulates this question: How was the field of psychology influenced by philosophy and physiology?

(  ) ____________ Vanessa turns to the back of Chapter 1 and notes that there is a chapter review. She turns back to the first page of the chapter, sees that the outline on that page matches the review at the end, and browses through some of the other parts of the chapter. She has a rough idea that the chapter is going to define the field and discuss its history.

(  ) ____________ Keeping in mind the question she has posed, Vanessa reads the section about the meeting of psychology's "parents" and formulates a tentative answer to her question. (She also formulates some additional questions: "Who was Descartes?" and "What method did philosophers use?")

(  ) ____________ Vanessa answers her first question as follows: "Philosophy (one of the parents) posed questions about the mind that made the study of human thinking and actions acceptable; physiology (the other parent) contributed the scientific method." She decides to note down her answer for later review.

(  ) ____________ When she has finished step 4 for all sections, Vanessa looks over the entire chapter, section by section. She repeats the questions for each section and attempts to answer each one.

19-2. What makes the SQ3R technique so effective?

Answers: 19-1. (2) Question (1) Survey (3) Read (4) Recite (5) Review 19-2. It breaks the reading assignment into manageable segments; it requires understanding before you move on.

20. Summarize advice provided on how to get more out of lectures.

20-1. Using a few words for each point, summarize the four points on getting more out of lectures.

Answers: 20-1. Listen actively; focus full attention on the speaker and try to anticipate what's coming. For complex material, read ahead. Take notes in your own words and attend to clues about what is most important. Consider asking questions during lectures (to keep involved and to clarify points presented).

21. Summarize advice provided on improving test-taking strategies.

21-1. Is it better to change answers on multiple-choice tests or to go with one's first hunch?
21-2. Following are situations you might encounter while taking a test. Reread the section on general test-taking tips and then indicate what you would do in each situation.

(a) You run into a particularly difficult item:

(b) The answer seems to be simple, but you think you may be missing something:

(c) The test is a timed test:

(d) You have some time left at the end of the test:

21-3. Following are samples of the situations mentioned under the discussion of tips for multiple-choice and essay exam questions. Based on the suggestions, what would you do?

(a) In a multiple-choice test, item c seems to be correct, but you have not yet read items d and e: What would you do next?

(b) You know that items a and b are correct, are unsure of items c and d, and item e is an "all of the above" option. Which alternative (a, b, c, d, or e) would you choose?

(c) You have no idea which multiple-choice alternative is correct. You note that option a has the word "always" in it, items b and c use the word "never," and item d says "frequently."

(d) You have read the stem of a multiple-choice item but you have not yet looked at the options.

(e) Faced with an essay, you wonder whether to simply begin writing and let the ideas flow or to spend a few minutes in organization.
Answers: 21-1. In general, changing answers seems to be better. Available research indicates that people are more than twice as likely to go from a wrong answer to a right one as from a right answer to a wrong one. 21-2. (a) Skip it and come back to it if time permits. (b) Maybe the answer is simple! Don’t make the question more complex than it was intended to be. (c) Budget your time, checking the proportion of the test completed against the time available. (d) Review, reconsider, check over your answers. 21-3. (a) Read all options. (b) Answer e. (c) Answer d. (Still good advice and generally the best procedure to follow. But note that some professors, aware of the strategy, may throw in an item in which “always” is part of a correct answer! It’s sort of like radar detectors: someone builds a better detector and someone else tries to build radar that can’t be detected.) (d) Try to anticipate the correct answer before reading the options. (e) Spend a few minutes looking over the questions and allocating time, planning, organizing, and possibly even outlining. Many examiners will appreciate your use of headings or numbers to identify points made.

22. Explain the nature of critical thinking skills and why they need to be taught.

22-1. The previous section on test-taking strategies asked whether or not it is better to change answers or go with one’s first hunch. Actually, that is a critical thinking question. While our hunches are often pretty good, sometimes they don’t lead to the desired outcome. When we use critical thinking we use the same principles that we would use in a _______________ investigation, apply the formal and informal rules of ________________, and analyze events in terms of likelihood or ________________.

22-2. Critical thinking is not something that we come by naturally, and it ______________ a normal part of instruction in most subject areas. So, for people to develop the skill of critical thinking, it has to be deliberately and consciously _________________.

Answers: 22-1. scientific, logic, probability 22-2. is not, taught.

23. Discuss some weaknesses in evolutionary explanations for gender differences in spatial abilities.

23-1. Some evidence suggests that males tend to have better visual-spatial perception than females and that females have better memories for locations. The reason for these gender differences, according to evolutionary psychologists, is that in our evolutionary past natural selection favored a division of labor in which men were ________________ and women were ________________. Hunting (aiming a projectile, traveling long distances) required ________________ perception, while gathering required ________________ for locations of food.

23-2. As previously discussed, evolutionary psychology is a major new theoretical perspective in psychology. While the interpretation of the evolutionary psychologists is certainly plausible, critical thinking urges us to consider the following questions when assessing a truth claim: Are there ________________ explanations for these results? And, are there data that ________________ the evidence provided?

23-3. It turns out that the answer to both of these questions is a qualified “yes.” For example, it may be the case that male children are encouraged to engage in sex-typed activities, such as playing with blocks, that provide more experience with visual-spatial tasks. The possibility of such gender-based differences in experience provides an ________________ interpretation to one based on evolutionary principles. Some scholars have also suggested that women in these early societies often did, in fact, travel long distances to gather food and were also involved in hunting. While far from established, this type of evidence ________________ data collected by evolutionary psychologists.

### REVIEW OF KEY TERMS

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1. Any detectable input from the environment.
2. The branch of psychology concerned with practical problems.
3. School of thought based on notion that the task of psychology is to analyze consciousness into its basic elements.
4. Observation of one's own conscious experience.
5. School of thought asserting that psychology's major purpose was to investigate the function or purpose of consciousness.
6. The theoretical orientation asserting that scientific psychology should study only observable behavior.
7. An observable activity or response by an organism.
8. Examines behavioral processes in terms of their adaptive or survival value for a species.
9. The use of cognitive skills and strategies to increase the probability of a desirable outcome.
10. The illusion of movement created by presenting visual stimuli in rapid succession.
11. Freudian theory that explains personality and abnormal behavior in terms of unconscious processes.
12. According to psychoanalytic theory, that portion of the mind containing thoughts, memories, and wishes not in awareness but nonetheless exerting a strong effect on human behavior.
13. The psychological theory asserting that human beings are unique and fundamentally different from other animals.
14. The tendency to view one's own group as superior to other groups.
15. Widely shared customs, beliefs, values, norms, and institutions that are transmitted socially across generations.
16. The branch of psychology concerned with the diagnosis and treatment of psychological disorders.
17. Mental processes or thinking.
18. The science that studies behavior and the physiological and cognitive processes that underlie it, and it is the profession that applies this knowledge to solving various practical problems.
19. The branch of medicine concerned with the diagnosis and treatment of psychological problems and disorders.
20. The point of view that knowledge should be based on observation.
21. A system of ideas used to link together or explain a set of observations.
22. A five-step procedure designed to improve study skills.

23. Ability to use the characteristics and formats of a test to maximize one's score.

24. The Darwinian principle that characteristics that have a survival advantage for a species are more likely to be passed on to subsequent generations.

**REVIEW OF KEY PEOPLE**

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<th>Carl Rogers</th>
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<td>G. Stanley Hall</td>
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1. Founded experimental psychology and the first experimental psychology laboratory.
2. Established the first American research laboratory, launched America's first psychological journal, was first president of the APA.
3. Chief architect of functionalism; described a "stream of consciousness."
4. Founded behaviorism.
5. Devised the theory and technique known as psychoanalysis.
6. Identified operant conditioning.
7. A major proponent of "humanistic" psychology.

**SELF-QUIZ**

1. Structuralism is the historical school of psychology that asserted that the purpose of psychology was to:
   a. study behavior
   b. discover the smaller elements that comprise consciousness
   c. explore the unconscious
   d. examine the purposes of conscious processes

2. Of the two parents of psychology, physiology and philosophy, which provided the method? What is the method?
   a. philosophy; logic, reasoning
   b. philosophy; intuition, introspection
   c. physiology; observation, science
   d. physiology; anatomy, surgery

3. Who is Wilhelm Wundt?
   a. He founded the first experimental laboratory.
   b. He founded the American Psychological Association.
   c. He discovered the classically conditioned salivary reflex.
   d. He founded behaviorism.
4. For John B. Watson, the appropriate subject matter of psychology was:
   a. animal behavior
   b. the unconscious
   c. consciousness
   d. human physiology

5. Which of the following represents a major breakthrough in the development of applied psychology?
   a. the use of the method of introspection
   b. Binet's development of the intelligence test
   c. establishment of the first animal laboratory
   d. Wundt's founding of experimental psychology

6. Within the field of psychology, Freud's ideas encountered resistance because he emphasized:
   a. human consciousness
   b. human behavior
   c. introspection
   d. the unconscious

7. Which of the following would be considered the major principle of operant conditioning?
   a. Human behavior derives in part from free will; animal behavior is determined by the environment.
   b. Humans and other animals tend to repeat responses followed by positive outcomes.
   c. The majority of human behavior is based on thoughts, feelings, and wishes of which we are unaware.
   d. Human beings are fundamentally different from other animals.

8. Which of the following theorists would tend to emphasize explanations in terms of freedom and potential for
   personal growth?
   a. Carl Rogers
   b. Sigmund Freud
   c. B. F. Skinner
   d. all of the above

9. Recent research trends in psychology involve two areas largely ignored by early behaviorists. These two areas are:
   a. observable and measurable responses
   b. cognition (thinking) and physiological processes
   c. classical and operant conditioning
   d. the effect of environmental events and the behavior of lower animals

10. Which core psychological research area is primarily devoted to the study of such topics as memory, problem
    solving, and thinking?
    a. physiological
    b. social
    c. cognitive
    d. personality

11. Critical thinking refers to:
    a. analysis of problems in terms of scientific principles
    b. making decisions based on formal and informal logic
    c. thinking that includes consideration of probabilities
    d. all of the above

12. The assertion that “psychology is empirical” means that psychology is based on:
    a. introspection
    b. logic
    c. observation
    d. mathematics
13. In looking for the causes of a particular behavior, psychologists assume:
   a. one cause or factor
   b. multifactorial causation
   c. free will
   d. infinite causation

14. Contemporary psychologists generally assume that human behavior is determined by:
   a. heredity
   b. environment
   c. heredity and environment acting jointly
   d. heredity, environment, and free will

15. What does SQ3R stand for?
   a. search, question, research, recommend, reconstitute
   b. silence, quietude, reading, writing, arithmetic
   c. summarize, quickly, read, research, reread
   d. survey, question, read, recite, review